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Via Electronic and US Mail

October 28, 2016

Joseph A. Gowers
Remedial Project Manager
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USEPA Region II
290 Broadway, 19th Floor
New York, New York 10007-1866

Re: Ringwood Mines/Landfill Superfund Site
Annual Groundwater, Mine Water, and Surface Water Sampling - 2016

Dear Mr. Gowers:

Cornerstone Engineering Group, LLC, on behalf of Ford Motor Company (Ford), completed the 2016 Annual Sampling Event for groundwater, mine water, and surface water at the above referenced Site which includes sampling within all three land Areas of Concern (AC). In addition, in accordance with the Supplement to the Annual Sampling Program letter from Cornerstone to the USEPA dated August 1, 2016, during the Annual Sampling Event, samples were also collected for compound-specific isotope analysis for 1,4-dioxane. The sampling was performed during the period August 15 through August 30, 2016, with the synoptic measurement of water levels at accessible monitoring wells completed prior to sampling on August 12, 2016. This letter report presents the results of the 2016 Annual Sampling Event and includes a limited evaluation of compound-specific Isotope analysis for 1,4-dioxane.

Sampling Locations

Sampling was performed at groundwater monitoring wells, mine structures, and surface water locations as shown in the tabulations below.

Overburden Groundwater Monitoring Wells:

OB-10	OB-17	OB-22*	OB-29	OB-33
OB-11R	OB-18	OB-23	OB-30A*	

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OB-14A	OB-19	OB-24	OB-30B	
OB-14B	OB-20A	OB-25	OB-30C	
OB-15B	OB-20B	OB-27	OB-31	
OB-16	OB-21	OB-28	OB-32	

Bedrock Groundwater Monitoring Wells:

OB-1	RW-3(77-87)	RW-8(163-173)	RW-12(130-140)
OB-2	RW-3DS(155-160)	RW-8(204-214)	RW-13(71-91)
OB-3	RW-3DD(175-180)	RW-9A(25-35)*	RW-13(100-120)
OB-4	RW-4A(62-72)	RW-9A(85-95)	RW-13(150-170)
OB-5	RW-4A(113-123)	RW-9(139-149)	RW-14S(135-155)
OB-6	RW-4(333-343)	RW-9(206-216)	RW-14D(175-185)
OB-7	RW-4(393-403)	RW-10A(51-61)	RW-15S(110-120)
OB-12	RW-5A	RW-10A(75-85)	RW-15D(127-137)
OB-13	RW-5	RW-10(120-130)	RW-16
SC-1	RW-6A	RW-10(185-195)	
SC-2	RW-6	RW-11(236-241)	
RW-2(279-289)	RW-7	RW-11(262-267)	
RW-2(452-462)	RW-8A(47-57)*	RW-12(55-65)	

*Indicates well was dry at time of sampling. No sample collected during this event.

Surface Water Sampling Locations:

SR 3-Seep-2	SW-3	SW-PAB-01A	PMP Pond
SR 3 Pond	SW-4	SW-PAB-01	SW-PAB-00
SR 3-Seep-1	SW-MRB-03	SW-SP-01	SW-NOB-01
SW-NOB -02	SW-MRB-02	SW-PAB-03	SW-PMP-01
SW-PAB -04	SW-MRB-01	SW-PAB-02	
SW-PMB - 02	SW-MRB-00	SW-11	

Mine Structure Sampling Locations:

PM Air Shaft-50	PM Air Shaft-230	CM Shaft-100	CM Shaft-275
PM Air Shaft-180	CM Shaft-50	CM Shaft-160	

PM – Peters Mine
CM – Cannon Mine

Groundwater monitoring well, mine structure, and surface water sampling locations are illustrated on Figure 1 (see Attachment A, Figures). In addition, groundwater monitoring

well construction details are provided in Table 1 and water level measurements are provided in Table 2.

Sample Collection and Analyses

Groundwater samples were collected using the low-flow sampling methodology, consistent with previously approved and implemented practices, and field sampling data sheets are attached for reference (see Attachment B). As documented during previous sampling events, several of the bedrock wells exhibited poor recharge resulting in very low purge rates and, in some cases, inadequate volume for the collection of the full suite of parameters. To maximize sample volume, optimized purge rates established during prior sampling events were used. Also, per approval from USEPA, some locations required the collection of samples over a 24 hour period for collection of sufficient volume, and/or the volume collected was dedicated to a prioritized list of analytes. Details regarding purge rates, sampling times, and the locations at which inadequate sample volume prohibited the analysis for the full suite of parameters (and, in this event, which parameters were analyzed) are provided in Table 3. Field data sheets are provided in Attachment B.

Groundwater and surface water samples were sent under chain of custody to Test America Laboratories for analysis of Target Analyte List (TAL) inorganic compounds, Target Compound List (TCL) organic compounds (plus tentatively identified compounds (TICs)) and wet chemistry. Samples were also sent to Alpha Analytical (Alpha) for analysis of 1,4-dioxane. In addition, samples from four selected locations (RW-3DD, RW-11D, PMP-AS-180 and PMP-AS-230) were sent to Pace Analytical (Pace) for analysis of both 1,4-dioxane and 1,4-dioxane carbon isotopes as outlined in the Supplement to the Annual Sampling Program letter (August 1, 2016). Samples were not analyzed for pesticides based on prior approval from the USEPA dated April 2, 2007.

All samples were analyzed using the following methodology:

- Volatile Organics + 15 TICs – USEPA Method 8260B
- Semi-Volatile Organics + 15 TICs – USEPA Method 8270C
- 1,4-dioxane - USEPA Method 8270D SIM with Isotope Dilution(Alpha only)
- 1,4-dioxane - USEPA Method 522 (Pace only)
- 1,4-dioxane carbon isotope - AM24 (Pace Lab only)
- Metals (total and dissolved)– USEPA Methods 6010B/7470A
- PCBs – USEPA Methods 8082
- Alkalinity, total (as CaCO3) – USEPA Method SM20 2320B

- Chloride – USEPA Methods 300/9056
- Sulfate – USEPA Methods 300/9056

Samples were analyzed for the full suite of parameters above unless otherwise noted in Table 3, and as described above relating to inadequate sample volume.

Laboratory results for the sample delivery groups (SDGs) generated by Test America and Alpha during this sampling event were validated (level 4 validation) by Cadena Inc. Copies of the laboratory and data validation reports are provided in Attachments C and D, respectively.

Groundwater Elevation Data

A synoptic round of water levels at the groundwater monitoring wells was conducted on August 12, 2016, prior to sampling. Groundwater elevation data from this round of water level measurements are presented on Figures 2 through 6 (Attachment A, Figures). These figures present groundwater contours as follows:

- Figure 2 – Peters Mine Pit (PMP) Area overburden groundwater
- Figure 3 – PMP Area shallow bedrock groundwater
- Figure 4 – O'Connor Disposal Area (OCDA) overburden groundwater
- Figure 5 – Cannon Mine Pit (CMP) Area shallow bedrock groundwater
- Figure 6 – CMP Area deep bedrock groundwater

As shown in Figures 2 and 4, the groundwater flow gradient in the overburden is generally to the south-southeast from the PMP Area towards the OCDA. As shown in Figure 3, the groundwater flow gradient in the shallow bedrock in the PMP Area is generally to the southeast. The groundwater flow gradient in the shallow and deep bedrock in the CMP Area is primarily from the bedrock ridge towards the southeast with a component of flow to the southwest as shown in Figures 5 and 6. The flow gradients in each of the three land ACs is consistent with the findings of the Site-Related Groundwater Remedial Investigation (RI) as outlined in the RI Report dated January 2015.

Analytical Data

The results of the 2016 Annual Sampling Event are summarized in the tables identified below. Analytical data are organized by providing summary tables of detected parameters (i.e., only those locations and parameters for which there were detected constituents), followed by tabulation of the complete data sets (i.e., all locations and

parameters). Note that Tables 13A and 13B summarize the current and historic (2004-2016) benzene, 1,4-dioxance, chloroethane, arsenic, and lead concentrations in groundwater and the same data for the mine structures, respectively. These tables are provided for consistency with Table 13 from the Site-Related Groundwater RI Report dated January 2015 for ease of comparison of historical and current data for these parameters. Last, the data have been organized by Land Area of Concern (AOC) Peters Mine Pit (PMP), O'Connor Disposal Area (OCDA), Cannon Mine Pit (CMP), Sally's Pond area, surface water, mine structures, and quality control data. More specifically, the full suite of tables prepared to summarize the data and following this letter report include:

Table 1 – Monitoring Well Construction Details
Table 2 – Site Wide Water Level Measurements – August 12, 2016
Table 3 – Bedrock Well Purge Rates, Volumes and Sample Collection
Tables 4A – 4G – Field Data Summary Tables
Tables 5A – 5F - Peters Mine Pit (PMP) Groundwater Data
Tables 6A - 6E – O'Connor Disposal Area (OCDA) – Groundwater Data
Tables 7A – 7F - Cannon Mine Pit (CMP) – Groundwater Data
Tables 8A – 8E – Sally's Pond Area (SPA) – Groundwater Data
Tables 9A - 9E – PMP and CMP Air/Mine Shafts – Mine Water Data
Tables 10A – 10D – Surface Water Data -
Tables 11A – 11D – Groundwater/Surface Water Quality Control Sample Data
Table 12 - Data Validation Qualifiers
Tables 13A -13B - Summary of Historical and Current Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead.

Results Summary

The results of the annual sampling event are summarized in the sections that follow organized by AOC, Sally's Pond area, surface water, mine structures, and quality control data.

Peters Mine Pit AOC - Groundwater

- The only volatile organic compound (VOC) detected above its respective New Jersey Groundwater Quality Standard (NJGWQS) is benzene and the only VOC detected above its New Jersey Interim Generic Groundwater Quality Criterion (NJIGGWQC) is chloroethane (See Table 5A). The detections of benzene and chloroethane were at generally low levels consistent with historical concentrations. VOC TICs were also reported at various well locations at low levels, mostly "J" qualified (i.e., estimated values), and similar to historical concentrations. To facilitate review of the VOC data, Figures 7 and 8 (see

Attachment A) present the benzene and 1,4-dioxane data (discussed below) superimposed on the overburden and shallow bedrock groundwater contour maps. As a point of reference for chloroethane, the USEPA Regional Screening Level for tap water for this compound is 21,000 micrograms per liter (ug/L) compared to the NJIGGWQC of 5 ug/L. The highest reported concentration for chloroethane during this sampling round was 61 ug/L at OB-27. Therefore, chloroethane concentrations were not added to the figures to help maintain clarity.

- With the exception of 1,4-dioxane, semi-volatile organic compounds (SVOCs) were detected only sporadically, at low levels, and none were detected above NJGWQS. SVOC TICs were also reported sporadically at low, "J" qualified levels, and similar to historical concentrations (See Table 5B). 1,4-dioxane was reported above its NJISGWQC of 0.4 ug/L in 17 samples as shown in Table 5B and as illustrated on Figures 7 and 8. Consistent with recent sampling results, the reported concentrations are generally low at less than 10 ug/L with a few exceptions as follows:

    - A higher concentration was reported at well RW-11D (73.4 ug/l), which is greater than previously reported concentrations of 26J and 17.9 ug/L but within the same order of magnitude.

    - At well RW-3DD a concentration of 152 ug/L was reported which is higher than the historically reported concentrations of 20 and 8.95 ug/L at this bedrock well location.

    - Note that samples from wells RW-11D and RW-3DD are locations for which samples were also submitted to Pace Analytical for 1,4-dioxane carbon isotope analysis, which is discussed further below. As a part of this analysis, Pace also analyzed for 1,4-dioxane via Method 522 and reported 1,4-dioxane concentrations for RW-11D and RW-3DD of 54.4 and 20.9 ug/L, respectively.

    - Given the discrepancy between the reported 1,4-dioxane concentrations for the RW-3DD sample, a decision was made to re-analyze an unopened second sample bottle from RW-3DD, provided it would be analyzed within no more than two times the specified holding time. Since it was within this range, Alpha analyzed the second sample bottle and the result was 29.2 ug/L. While no specific reason was found to invalidate the reported value of 152 ug/L, the collective data suggest that this value is not representative. However, all three of the reported concentrations are presented in the tables

and figures and groundwater quality at this well location will be verified as the Site-wide monitoring program continues.

- No PCBs were detected in any of the groundwater samples (see Table 5F).

- Analyses were performed for both total (unfiltered) and dissolved (filtered) metals. The only metals detected above their respective NJGWQS are aluminum, arsenic, iron, manganese, and sodium. The results for these metals are shown in Table 5C and summarized as follows:

    - Aluminum was detected above its NJGWQS in several bedrock and overburden wells and in total and filtered samples, with fewer detections in filtered samples. Aluminum is naturally occurring and an abundant secondary metal in the soil/groundwater system at the Site.
    - Total arsenic was reported above its NJGWQS in ten samples, while dissolved arsenic was reported in four samples at concentrations consistent with historical levels.
    - Iron and manganese were reported above their respective NJGWQS in a number of samples, in both the total and dissolved (filtered samples) forms. Iron and manganese are naturally occurring and prevalent in the aquifers at the Site (both overburden and bedrock).
    - Sodium was reported above its NJGWQS in both total and dissolved forms in six samples and in dissolved form in one additional sample. Sodium is a commonly occurring secondary metal.

- As shown in Table 5C, of the wet chemistry parameters, chloride and sulfate were reported above their NJGWQS and in only one sample each. Again, these are naturally occurring and common analytes.

O'Connor Disposal Area AOC - Groundwater

- There were no VOCs reported above their respective NJGWQS and VOC TICs were not detected (See Table 6A).

- As shown in Table 6A, and consistent with the historic database, no SVOCs were detected in any groundwater sample above NJGWQS and no SVOC TICs were detected during this sampling event. As also shown in Table 6A and Figure 9, 1,4-dioxane was reported above the NJISGWQC at one location, well OB-17, at a concentration that is consistent with the results of the 2015 annual sampling event.

The data indicates that this is a very localized occurrence based on the absence of 1,4-dioxane at similar concentrations elsewhere in the OCDA.

- A trace of 1,4-dioxane below the 0.4 ug/L NJISGWQC was also reported at well OB-14B which is also consistent with previous results.

- As shown in Table 6A, no PCBs were detected in any of the samples.

- Analyses were performed for both total (unfiltered) and dissolved (filtered) metals. The only metals reported above their respective NJGWQS are aluminum, arsenic, iron, and manganese (See Table 6B). The results for these metals are summarized as follows:

    - Total aluminum was reported above its NJGWQS in two samples; however, the dissolved aluminum results were all below the NJGWQS for this naturally occurring secondary metal.
    - Total arsenic was reported above its NJGWQS in one sample. Dissolved arsenic was not detected above its NJGWQS in any of the groundwater samples indicating that the total arsenic concentration is associated with particulates in the groundwater sample.
    - Iron and manganese were reported above their respective NJGWQS in a number of samples, both total and dissolved results. Iron and manganese are naturally occurring and prevalent in the aquifers (both overburden and bedrock) at this Site.

- As also shown in Table 6B, of the wet chemistry parameters, there were no detections above the NJGWQS.

Cannon Mine Pit AOC – Groundwater

- As shown in Table 7A and Figures 10 and 11, VOCs are reported sporadically, typically at low "J" qualified concentrations, with only benzene reported above its NJGWQS (1 ug/L) in one sample (RW-8(204-214)) at a concentration of 3.8 ug/L. A single VOC TIC was reported in one sample at a low, "J" qualified, concentration (See Table 7A).

  As shown in Table 7B, SVOCs were reported only sporadically, at low levels, with no compounds reported above NJGWQS. Two SVOC TICs were also reported at "J" qualified concentrations, similar to historical records. As also shown in Table 7B and Figures 10 and 11, 1,4-dioxane was reported above the interim NJISGWQC

of 0.4 ug/L in two samples collected at depth from wells RW-2(279-289) and RW-2(452-462).

- As also shown in Table 7B, PCBs were reported at one well location, well RW-2 (452-462) at a concentration of 0.77 ug/L which is slightly above the NJGWQS of 0.5 ug/L. PCBs have not been historically detected and these data are inconsistent with historical data.

- Analyses were performed for both total (unfiltered) and dissolved (filtered) metals. The only metals reported above their respective NJGWQS are arsenic, iron, manganese, and sodium (See Table 7C). The results for these metals are summarized as follows:

    - Arsenic was reported above its NJGWQS in five bedrock well locations in both the total and dissolved forms at concentrations consistent with historical results. Arsenic is naturally occurring and prevalent within the bedrock formations and mine tailings at the Site.

    - Iron and manganese were reported above their respective NJGWQS in a number of samples, both total and dissolved results. Iron and manganese are naturally occurring and prevalent in the aquifers (both overburden and bedrock) at the Site.
    - Sodium was reported above the NJGWQS in up to six groundwater samples, both in the total and dissolved forms.

- As shown in Table 7C, of the wet chemistry parameters, chloride was detected in one sample and sulfate was detected in three samples above their respective NJGWQS.

Sally's Pond Area – Groundwater

- As shown in Table 8A, there were no VOCs or SVOCs reported above their respective NJGWQS in any of the four groundwater sampling locations; wells OB-10, OB-29, RW-12 (55-65) and RW-12 (130-140). In addition, there were no VOC or SVOC TICs reported in any of the groundwater samples at these well locations. As also shown in Table 8A, 1,4-dioxane was not reported above the NJISGWQC of 0.4 ug/L in any of these four groundwater samples..

- As also shown in Table 8A, no PCBs were detected above NJGWQS in any of the samples.

- Analyses were performed for both total (unfiltered) and (filtered) dissolved metals. The only metals detected above their respective NJGWQS are aluminum, arsenic, iron, and sodium (See Table 8B). The results for these metals are summarized as follows:

    - Total aluminum was reported above its NJGWQS in one sample and in the total and dissolved forms in a second sample.

    - Arsenic was reported above its NJGWQS in groundwater at two well locations in both the total and filtered results. Arsenic is naturally occurring and prevalent within the bedrock formations and mine tailings at the Site.

    - Total iron was reported above its NJGWQS in groundwater at two well locations. Iron is naturally occurring and prevalent in the aquifers (both overburden and bedrock) at the Site.

    - Sodium was reported above its NJGWQS in groundwater at two well locations, in the total and filtered samples.

- As also shown in Table 8B, of the wet chemistry parameters, sulfate was reported in two samples above the NJGWQS.

Overall the analytical results for the collective August 2016 groundwater analytical results are consistent with historical data, and continue to demonstrate only sporadic, low-level, and localized site-related constituents and various inorganics in groundwater that are also naturally occurring in the aquifer systems at the Site. 1,4-dioxane was reported sporadically in overburden groundwater at generally low levels with some variability indicated at certain PMP Area bedrock well locations, with the distribution generally consistent with prior sampling results.

Mine Water

- Seven samples of mine water were collected for analyses; three different depth intervals in the PMP Air Shaft (50, 180, and 230 feet) and at four from different depth intervals in the CMP Mine Shaft (50, 100, 160, and 275 ft).

- As shown in Table 9A, the only VOC reported in mine water above its NJGWQS is benzene in the PMP Air Shaft at the 180' and 230' depth intervals. In addition, chloroethane was reported above its NJIGGWQC in the same two depth intervals.

The reported benzene and chloroethane concentrations are generally consistent with historical concentrations. VOC TICs were also reported within the 230′ depth interval in the PMP Air shaft at low levels, mostly "J" qualified, which is also similar to historical concentrations.

- 1,4-dioxane was reported above its NJISGWQC at the PMP Air Shaft 180′ and 230′ depth intervals at concentrations that are comparable with the 2015 annual sampling event. Also consistent with the 2015 annual sampling event, 1,4-dioxane was reported at trace concentrations below the 0.4 ug/L NJISGWQC in the CMP Shaft at the 160 and 275 ft. depth intervals. No other SVOCs were reported above NJGWQS in the PMP Air Shaft or CMP Shaft mine water. No SVOC TICs were reported in any of the mine water samples.

- As also shown in Table 9A, no PCBs were reported in any of the PMP Air Shaft or CMP Shaft mine water samples.

- Analyses were performed for both total (unfiltered) and dissolved (filtered) metals. The metals reported above their respective NJGWQS are cadmium, iron, manganese, lead, sodium and zinc (See Table 9B). The results for these metals are summarized as follows:

    - Total cadmium was reported above its NJGWQS in the 160′ and 275′ depth intervals in the CMP Shaft. Dissolved cadmium concentrations were all below NJGWQS indicating the total results are associated with particulates in the sample.

    - Total iron was reported above its NJGWQS in all the mine water samples except for the PMP Air Shaft 50′ interval. Dissolved iron was reported above its NJGWQS in samples collected from the CMP shaft 275′ interval and the PMP Air Shaft 180 and 230 foot intervals.

    - Manganese was reported above its NJGWQS in both total and dissolved forms in each sample except at the PMP Air Shaft 50′ depth interval. Iron and manganese are naturally occurring and prevalent in the aquifers (both overburden and bedrock) at the Site.

    - Lead was reported in the total form above its NJGWQS in two samples from the CMP Shaft and two samples from the PMP Air Shaft, and none of the dissolved lead concentrations were above the NJGWQS indicating lead is predominantly associated with particulates in the samples.

- Sodium was reported above its NJGWQS in each of the CMP Shaft mine water samples.

- Total zinc was reported above its NJGWQS in the 160′ and 275′ depth intervals in the CMP Shaft samples and at the 180′ depth interval in the PMP Air Shaft samples. No dissolved zinc concentrations were reported above the NJGWQS.

- As shown in Table 9B, there were no wet chemistry parameters above their respective NJGWQS.

Surface Water

- As shown in Figure 12, surface water samples were collected from Park Brook, Peters Mine Brook, North Brook, SR-3 seeps, SR3 Pond and the PMP Pond as part of the 2016 annual monitoring event.

  As shown in Table 10A and Figure 12, of the 22 surface water samples collected, the only VOC reported slightly above its New Jersey Surface Water Quality Standard (NJSWQS) was benzene in two samples (specifically, the SR-3 Seeps 1 and 2), and the values were both "J" qualified. Consistent with historic data, no VOC TICs were detected in any surface water sample.

- As shown in Table 10A and on Figure 12, low, single digit, concentrations of 1,4-dioxane were reported within 8 surface water samples with concentrations declining from the immediate vicinity of the PMP Area and no detections downstream of Sally's Pond. There is no New Jersey surface water quality standard established for 1,4-dioxane, however, for purposes of comparison, a surrogate screening value from Michigan (MDEQ Rule 57 Water Quality Values) that has been proposed for the Site is 22,000 ug/L.

- As shown in Table 10A, low concentrations of bis (2-ethylhexyl) phthalate and di-n-butyl phthalate were detected in up to 14 samples, with several of the reported bis (2-ethylhexyl) phthalate concentrations slightly above the NJSWQS. The reported concentrations are inconsistent with prior sampling results and di-n-butyl phthalate was also found in the sample blanks. Collectively, the data suggests that the detected concentrations are likely sampling and/or lab interferences and are not representative of actual surface water quality. No SVOC TICs were reported in surface water samples.

- As shown in Table 10A, no PCBs were detected in any of the surface water samples.

- As shown in Table 10B, total arsenic was reported above its NJSWQS in five samples. However no dissolved arsenic concentrations were reported above NJSWQS indicating that the reported total arsenic concentrations are attributable to particulates in the water samples.

- As also shown in Table 10B, total lead was reported above its NJSWQS at one location. Dissolved lead was not reported above NJSWQS again indicating that the reported total concentrations are attributable to particulates in the water sample.

- As shown in Table 10B, there were no wet chemistry parameters above their respective NJGWQS.

Overall, the collective surface water data are generally consistent with historic results.

Quality Control Samples

Field and trip blanks were collected in accordance with the established protocols for quality assurance purposes. Tables 11A – 11D summarize the Groundwater/Surface Water Quality Control Sample Data and Table 12 summarizes the Data Validation Qualifiers. As shown in Tables 11A-11D, acetone was detected in six out of eight trip blanks and methylene chloride was detected in four field blanks and two trip blanks. Both of these compounds are common laboratory contaminants. The field blanks did not indicate cross contamination and supported the adequate decontamination of sampling equipment between sampling locations.

The data validation prepared by Cadena further supports the quality of the data. None of the data were rejected.

1,4-dioxane carbon isotope analysis

As described in the Supplement to the Annual Sampling Program letter from Cornerstone submitted to the USEPA on August 1, 2016, during the annual sampling event samples were collected at the following locations for compound-specific isotope analysis (CSIA) for 1,4-dioxane:

- PMP Air Shaft, 230' interval;
- PMP Air Shaft, 180' interval;
- PMP Area Bedrock Monitoring Well RW-11; and.
- Downgradient Bedrock Monitoring Well RW-3DD.

As also described in the August 1 letter, the results of CSIA analysis can provide an indication of biotic or abiotic degradation through changes in isotope ratios. The lighter isotopes are degraded first with a concomitant accumulation of heavier isotopes as a result. For the 1,4-dioxane carbon isotope analysis, if biodegradation is contributing to concentration declines down gradient, there is an expectation that this degradation would be manifested as a change in the C13/C12 ratio. Biotic degradation is therefore indicated by increases in $\delta^{13}C$ and $\delta^{2}H$ (i.e., less negative values) from upgradient to downgradient locations. Abiotic degradation is indicated by an increase in $\delta^{2}H$ in the downgradient direction without a corresponding increase in $\delta^{13}C$. Although these data are not in and of themselves to be taken as an absolute determination of whether or not degradation is or is not occurring or will or will not occur, taken together with other empirical data, they are useful in evaluating whether or not there is evidence of actual or potential natural attenuation.

The tabulation below presents the results of the CSIA testing arranged in up-gradient to down-gradient locations.

Sample Location	$\delta^{13}C$(1)	$\delta^{2}H$(2)
PMP-AS-230	-29.86	-103.75
PMP-AS-180	-29.55	-110.61(3)
RW-11D (262-267)	-29.71	-97.31
RW-3DD (175-180)	-29.24	-105.04(3)

(1) Concentrations are ‰ VPBD (parts per thousand, Vienna Pee Dee Belemite (carbon isotope international standard))
(2) Concentrations are ‰ VSMOW (parts per thousand, Vienna Standard Mean Ocean Water (hydrogen isotope international standard))
(3) Low peak signal, result usable to ±20 ‰.
(4) Results not otherwise footnoted, ±0.5 ‰.

The above tabulation indicates the following:

- The $\delta^{13}C$ values from upgradient to down-gradient are essentially the same within the margin of error of the analyses. These data therefore suggest that there is no indication of biotic degradation in the down-gradient direction based on the selected sample locations.

- The δ^2H concentrations show no appreciable increases in δ^2H from the upgradient to downgradient sample locations. Therefore, these data are not indicative of abiotic degradation at the locations sampled.

- Concentration trends, will continue to be monitored and evaluated.

Please contact us if you have questions or comments on the enclosed submittal.

Sincerely,

CORNERSTONE ENGINEERING GROUP, LLC

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Enclosure

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Table 1
Summary Data for Monitoring Wells
Ringwood Mines/Landfill Superfund Site

Well ID	Old Well ID	Month/Year of Installation	Elevation Data		Location Data		Monitoring Well and Boring Data							
			Ground Surface (ft msl)	Top of Protective Casing (ft msl)	Northing (ft)	Easting (ft)	Well Type	Diameter (inches)	Well Material	Open Hole or Screened Interval (ft bgs)	Total Depth (ft bgs)	Bottom Elevation (ft msl)	Depth to Bedrock (ft bgs)	Bedrock Elevation (ft msl)
OB-1	OB-1	Jul-84	542.60	544.37	39,190	7,294	BR	6	SS	5 to 31	31	512	3	540
OB-2	OB-2	Jul-84	561.40	562.30	37,821	7,508	BR	6	SS	8 to 42	42	519	4	557
OB-3	OB-3	Jul-84	495.60	496.53	37,840	7,275	BR	6	SS	9 to 24	24	472	7	489
OB-4	OB-4	Jul-84	510.60	510.80	37,889	8,348	BR	6	SS	28 to 61	61	450	25	486
OB-5	OB-5	Jul-84	457.90	458.83	37,607	8,634	BR	6	SS	18 to 63	63	395	18 est.	440
OB-6	OB-6	Jul-84	605.00	607.28	39,828	8,053	BR	6	SS	10 to 36	36	569	8	597
OB-7	OB-7	Jul-84	503.40	503.91	40,068	9,003	BR	6	SS	14 to 42	42	461	11	492
OB-8	OB-8	Jul-84	572.50	574.25	43,461	8,737	UC	4	PVC	7 to 17	23	550	18 est.	555
OB-9*	OB-9*	Jul-84	507.60	508.56	41,191	9,759	UC	4	PVC	51 to 61	63	445	NE	---
OB-10	OB-10	Jul-84	349.70	352.04	39,683	12,200	UC	4	PVC	10 to 20	20	330	NE	---
OB-11**	OB-11**	Sep-84	529.60	530.25	42,601	9,614	UC	4	PVC	14 to 24	25	505	NE	---
OB-11R	OB-11**	Oct-09	530.20	532.10	842,498	555,994	UC	2	PVC	25 to 40	40	490.2	NE	---
OB-12	OB-12	Mar-86	557.60	558.36	37,360	7,685	BR	6	SS	9 to 40	40	518	6	552
OB-13	OB-13	Mar-86	499.10	500.35	37,180	8,195	BR	6	SS	8 to 60	60	439	5	494
OB-14A	OB-14A	Mar-86	500.80	501.40	41,855	10,070	UC	4	SS	4 to 14	20	481	NE	---
OB-14B	OB-14B	Mar-86	503.10	504.11	41,830	10,045	UC	4	SS	25 to 35	40	463	NE	---
OB-15A**	OB-15A***	Mar-86	515.00	515.82	42,520	9,990	UC	4	SS	2 to 12	20	495	NE	---
OB-15B	OB-15B	Mar-86	509.30	511.27	42,525	9,999	UC	4	SS	25 to 35	40	469	NE	---
OB-16	OB-16	Nov-91	488.60	492.30	41,525	10,020	UC	4	SS	5 to 15	15	474	NE	---
OB-17	OB-17	Nov-91	486.80	490.26	41,327	10,009	UC	4	SS	3 to 13	13	474	NE	---
OB-18	OB-18	Nov-91	494.60	496.26	41,183	9,965	UC	4	SS	10 to 20	20	475	NE	---
OB-19	MW-19 OB	Mar-06	530.70	532.39	842,739	555,930	UC	2	PVC	5 to 20	24	506.7	NE	---
OB-20A	MW-20 OB	Mar-06	532.10	533.67	842,589	555,816	UC	2	PVC	5 to 20	22	510.1	NE	---
OB-20B	MW-20 OB-34	Mar-06	532.10	534.03	842,575	555,812	UC	2	PVC	24 to 34	35	497.1	NE	---
OB-21	MW-21 OB	Mar-06	537.70	539.48	842,790	555,570	UC	2	PVC	6 to 21	22	515.7	NE	---
OB-22†	OB-19	Oct-06	515.46	518.36	841,207	556,108	UC	2	PVC	10 to 20	20	495.5	NE	---
OB-23†	OB-20	Oct-06	512.75	515.65	841,571	556,225	UC	2	PVC	10 to 20	20	492.8	NE	---
OB-24†	OB-21	Oct-06	497.99	500.89	841,911	556,256	UC	2	PVC	5 to 15	15	483.0	NE	---
OB-25†	OB-22	Oct-06	524.41	527.31	841,978	555,959	UC	2	PVC	10 to 20	20	504.4	NE	---
OB-26†		Dec-07	542.33	545.23	843,530	557,437	UC	2	PVC	9 to 24	24.5	517.8	21	521.3
OB-27		Oct-09	529.60	532.38	842,638	555,994	UC	2	PVC	24.5 to 39.5	39.5	490.1	NE	---
OB-28		Mar-10	483.60	485.91	841,254	556,420	UC	2	PVC	3 to 18	18	465.6	NE	---
OB-29		Dec-11	350.30	349.88	839,517	558,588	UC	2	PVC	18 to 35	35	315.3	NE	---
OB-30A		Apr-12	531.00	533.30	842,334	555,867	UC	2	PVC	8 to 18	18	513	NE	---
OB-30B		Apr-12	531.00	533.50	842,344	555,863	UC	2	PVC	21 to 36	36	495	NE	---
OB-30C		Apr-12	530.60	533.01	842,342	555,871	UC	2	PVC	40 to 50	50	480.6	NE	---

Table 1
Summary Data for Monitoring Wells
Ringwood Mines/Landfill Superfund Site

Well ID	Old Well ID	Month/Year of Installation	Elevation Data		Location Data		Monitoring Well and Boring Data							
			Ground Surface (ft msl)	Top of Protective Casing (ft msl)	Northing (ft)	Easting (ft)	Well Type	Diameter (inches)	Well Material	Open Hole or Screened Interval (ft bgs)	Total Depth (ft bgs)	Bottom Elevation (ft msl)	Depth to Bedrock (ft bgs)	Bedrock Elevation (ft msl)
OB-31		Jan-16	530.14	533.26	842,659	555,938	UC	2	PVC	20 to 30	30	500.1	40	490.1
OB-32		Jan-16	531.27	534.25	842,522	555,864	UC	2	PVC	10 to 20	20	511.3	20	511.3
OB-33		Mar-16	516.48	518.89	842,366	556,422	UC	2	PVC	65 - 75	75	441.5	85	431.48
SC-1‡	DB-1	Mar-06	531.03	532.53	842,621	555,819	SB	2	PVC	64.4 to70.9	70.9	435.03	144	387.03
SC-2	MW-1/CMI-S5	Dec-07	561.70	564.13	837,560	554,029	SB	2	PVC	47 to 67	67	494.7	NE	---
RW-1(64-74)	RW-1	Apr-10	548.20	549.38	839,093	553,653	BR	1	PVC/ZIST	64 to 74	74	474	4	544
RW-1(131-141)	RW-1	Apr-10	548.20	549.42	839,093	553,653	BR	1	PVC/ZIST	131 to 141	141	407	4	544
RW-2(279-289)	RW-2	Apr-10	512.60	512.23	837,788	554,659	BR	1	PVC/ZIST	279 to 289	289	224	6	507
RW-2(452-462)	RW-2	Apr-10	512.60	512.19	837,788	554,659	BR	1	PVC/ZIST	452 to 462	462	51	6	507
RW-3(77-87)		Apr-10	527.70	528.15	842,511	556,138	BR	1	PVC/ZIST	77 to 87	87	441	58	470
RW-3DS(155-160)		Mar-10	527.90	529.51	842,509	556,123	BR	1	PVC/ZIST	155 to 160	160	368	62	466
RW-3DD(175-180)		Mar-10	527.90	529.41	842,509	556,123	BR	1	PVC/ZIST	175 to 180	181	347	62	466
RW-4A(62-72)		Apr-10	539.00	541.41	842,669	556,738	BR	1	PVC/ZIST	62 to 72	72	467	30	509
RW-4A(113-123)		Apr-10	539.00	541.60	842,669	556,738	BR	1	PVC/ZIST	113 to 123	123	416	30	509
RW-4(333-343)	RW-4	Apr-10	539.20	540.01	842,661	556,725	BR	1	PVC/ZIST	333 to 343	343	196	54	485
RW-4(393-403)	RW-4	Apr-10	539.20	539.87	842,661	556,725	BR	1	PVC/ZIST	393 to 403	403	136	54	485
RW-5A		Sep-07	530.70	533.26	842,737	555,957	BR	2	PVC	54 to 74	75	456	30	500.7
RW-5	MW-19 BR	Mar-06	530.30	533.48	842,748	555,928	BR	2	PVC	99 to 119	119	411.3	28	502.3
RW-6A		Sep-07	531.81	534.32	842,586	555,835	BR	2	PVC	58 to 78	78.6	453	38	493.81
RW-6	MW-20 BR	Mar-06	531.90	533.96	842,583	555,819	BR	2	PVC	99 to 119	120	411.9	36	495.9
RW-7	MW-21 BR	Mar-06	537.60	539.43	842,793	555,573	BR	2	PVC	99 to 119	120	417.6	22	515.6
RW-8A(47-57)		Apr-10	568.10	569.55	837,499	553,942	BR	1	PVC/ZIST	47 to 57	57	511	3	565.1
RW-8(163-173)	RW-8	Apr-10	569.00	570.01	837,485	553,944	BR	1	PVC/ZIST	163 to 173	173	396	3	566.0
RW-8(204-214)	RW-8	Apr-10	569.00	570.01	837,485	553,944	BR	1	PVC/ZIST	204 to 214	214	355	3	566.0
RW-9A(25-35)		Apr-10	560.10	561.82	837,543	554,173	BR	1	PVC/ZIST	25 to 35	35	525	8	552.1
RW-9A(85-95)		Apr-10	560.10	561.73	837,543	554,173	BR	1	PVC/ZIST	85 to 95	95	465	8	552.1
RW-9(139-149)	RW-9	Apr-10	560.40	561.81	837,532	554,181	BR	1	PVC/ZIST	139 to 149	149	411	12	548.4
RW-9(206-216)	RW-9	Apr-10	560.40	561.91	837,532	554,181	BR	1	PVC/ZIST	206 to 216	216	344	12	548.4
RW-10A(51-61)		Apr-10	537.90	539.43	837,266	554,285	BR	1	PVC/ZIST	51 to 61	61	477	4	533.9
RW-10A(75-85)		Apr-10	537.90	539.45	837,266	554,285	BR	1	PVC/ZIST	75 to 85	85	453	4	533.9
RW-10(120-130)	RW-10	Apr-10	539.50	540.78	837,261	554,276	BR	1	PVC/ZIST	120 to 130	130	410	3	536.5
RW-10(185-195)	RW-10	Apr-10	539.50	540.76	837,261	554,276	BR	1	PVC/ZIST	185 to 195	195	345	3	536.5
RW-11(236-241)		Mar-10	527.80	529.81	842,825	556,002	BR	1	PVC/ZIST	236 to 241	241	286.8	9	518.8
RW-11(262-267)		Mar-10	527.80	529.80	842,825	556,002	BR	1	PVC/ZIST	262 to 267	267	260.8	9	518.8
RW-12(55-65)		Aug-14	350.50	350.30	839,517	558,588	BR	1	PVC/ZIST	55 to 65	65	286	38	312.5
RW-12(130-140)		Aug-14	350.50	350.26	839,517	558,588	BR	1	PVC/ZIST	130 to 140	140	211	38	312.5

Table 1
Summary Data for Monitoring Wells
Ringwood Mines/Landfill Superfund Site

Well ID	Old Well ID	Month/Year of Installation	Elevation Data		Location Data		Monitoring Well and Boring Data							
			Ground Surface (ft msl)	Top of Protective Casing (ft msl)	Northing (ft)	Easting (ft)	Well Type	Diameter (inches)	Well Material	Open Hole or Screened Interval (ft bgs)	Total Depth (ft bgs)	Bottom Elevation (ft msl)	Depth to Bedrock (ft bgs)	Bedrock Elevation (ft msl)
RW-13(71-91)		Aug-14	530.00	532.45	842,359	555,872	BR	2	PVC	71 to 91	91.35	439	58	472.0
RW-13(100-120)		Aug-14	530.60	533.23	842,356	555,862	BR	1	PVC/ZIST	100 to 120	120	411	58	472.6
RW-13(150-170)		Aug-14	530.60	533.30	842,356	555,862	BR	1	PVC/ZIST	150 to 170	170	360.6	58	472.6
RW-14S (135-153)		May-16	530.38	531.53	842,509	555,867	BR	1	PVC/ZIST	135 to 153	153	377	52	478.38
RW-14D (175-185)		May-16	530.38	531.62	842,509	555,867	BR	1	PVC/ZIST	175 to 185	185	345	52	478.38
RW-15S (110-120)		May-16	516.01	518.66	842,362	556,409	BR	1	PVC/ZIST	110 to 120	120	396	85	431.01
RW-15D (127-137)		May-16	516.01	518.64	842,362	556,409	BR	1	PVC/ZIST	127 to 137	137	379	85	431.01
RW-16 (52-62)		Mar-16	505.53	507.22	841,851	556,208	BR	2	PVC	52 to 62	62	444	35	470.53

Notes:
Northing and easting are based on a site-specific plane coordinate system.
* = OB-9 was destroyed in October 1989 during land clearing and grading by a developer unrelated to remedial activities.
** = OB-11 was destroyed during SR-3 excavation work in 2006.
*** = OB-15A, which was screened across paint sludge, was decommissioned in 1987 during the paint sludge removal work at Location A.
† = Elevation data, ground surface (msl) not surveyed.
‡ = Elevation data based on a directional well extending 97.5 ft bgs and 150 ft in length.
§ = Top of protective casing measured from outer steel casing prior to well construction.
--- = not available
BR = bedrock well
bgs = below ground surface
est. = uncertain about bedrock depth and elevation
ft = feet
msl = mean sea level
NE = not encountered
PVC = polyvinyl chloride
S = steel
SB = soil boring
SS = stainless steel
UC = unconsolidated well
ZIST = zone isolation system technology

TABLE 2
ANNUAL SAMPLING EVENT WATER LEVELS
AUGUST 12, 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

WELL ID	Date	TIME	DTW	DTB
OB-1	8/12/2016	11:52	6.11	33.1
OB-2	8/12/2016	11:01	17.98	42.35
OB-3	8/12/2016	8:29	3.88	23.5
OB-4	8/12/2016	10:25	7.1	60.45
OB-5	8/12/2016	10:27	2.49	63.8
OB-6	8/12/2016	11:44	7.05	34.2
OB-7	8/12/2016	7:47	4.74	42.1
OB-10	8/12/2016	9:23	6.57	21.1
OB-11R	8/12/2016	7:58	17.07	38.55
OB-12	8/12/2016	11:21	10.51	39.75
OB-13	8/12/2016	10:35	12.7	32.15
OB-14A	8/12/2016	7:52	10.1	16.3
OB-14B	8/12/2016	7:54	12.91	37.35
OB-15B	8/12/2016	8:06	2.46	31.2
OB-16	8/12/2016	8:02	5.97	17.7
OB-17	8/12/2016	8:06	4.45	16.7
OB-18	8/12/2016	8:17	5.2	21.75
OB-19	8/12/2016	7:47	12.4	21.3
OB-20A	8/12/2016	8:21	15.69	20.6
OB-20B	8/12/2016	8:20	15.19	36
OB-21	8/12/2016	7:35	7.42	20.2
OB-22	8/12/2016	8:25	20.95	21.85
OB-23	8/12/2016	8:37	DRY	21.44
OB-24	8/12/2016	7:43	4.82	18.05
OB-25	8/12/2016	12:04	11.29	18.5
OB-27	8/12/2016	7:53	15.41	40.15
OB-28	8/12/2016	8:13	1.65	18.2
OB-29	8/12/2016	9:27	5.57	34.66
OB-30A	8/12/2016	8:46	19.04	20.65
OB-30B	8/12/2016	8:42	18.92	38.5
OB-30C	8/12/2016	8:44	18.63	52.05
OB-31	8/12/2016	8:49	15.34	33
OB-32	8/12/2016	8:13	17.74	20
OB-33	8/12/2016	8:02	10.28	76
SC-1	8/12/2016	8:27	14.87	109
SC-2	8/12/2016	11:17	56.92	69.22
RW-1S	8/12/2016	11:51	10.49	74
RW-1D	8/12/2016	11:50	10.28	141
RW-2S	8/12/2016	10:20	11.87	289
RW-2D	8/12/2016	10:17	12.1	462
RW-3	8/12/2016	13:10	13.94	87
RW-3DS	8/12/2016	13:05	15.88	165
RW-3DD	8/12/2016	13:06	16.33	185

TABLE 2
ANNUAL SAMPLING EVENT WATER LEVELS
AUGUST 12, 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

WELL ID	Date	TIME	DTW	DTB
RW-4A-S	8/12/2016	13:26	18.88	72
RW-4A-D	8/12/2016	13:24	31.45	123
RW-4S	8/12/2016	13:20	30.2	343
RW-4D	8/12/2016	13:21	29.98	403
RW-5A	8/12/2016	7:46	12.62	75.6
RW-5	8/12/2016	7:50	12.89	100
RW-6A	8/12/2016	8:17	14.06	80.25
RW-6	8/12/2016	8:19	13.44	122.1
RW-7	8/12/2016	7:34	4.5	100
RW-8A	8/12/2016	6:57	46.45	57
RW-8S	8/12/2016	10:51	52.66	173
RW-8D	8/12/2016	10:54	61.1	214
RW-9A-S	8/12/2016	11:07	24.71	35
RW-9A-D	8/12/2016	11:08	56.53	95
RW-9S	8/12/2016	11:12	58.59	149
RW-9D	8/12/2016	11:10	58.49	216
RW-10A-S	8/12/2016	11:28	36.05	61
RW-10A-D	8/12/2016	11:30	38.23	85
RW-10S	8/12/2016	11:27	41.39	130
RW-10D	8/12/2016	11:26	40.29	195
RW-11S	8/12/2016	13:43	9.39	241
RW-11D	8/12/2016	13:45	10.23	267
RW-12S	8/12/2016	9:31	water at top of casing	65
RW-12D	8/12/2016	9:32	water at top of casing	140
RW-13 (71-91)	8/12/2016	12:58	12.41	91
RW-13 (100-120)	8/12/2016	12:55	2.04	120
RW-13 (150-170)	8/12/2016	12:59	1.92	170
RW-14S	8/12/2016	13:01	11.51	153
RW-14D	8/12/2016	13:02	0.5	185
RW-15S	8/12/2016	13:33	2.18	120
RW-15D	8/12/2016	13:32	6.55	137
RW-16	8/12/2016	7:41	6.47	62
PMP-AS-50	8/12/2016	7:40	8.79	400
PMP-AS-180	8/12/2016	7:40	8.79	400
PMP-AS-230	8/12/2016	7:40	8.79	400
CMP-AS-50	8/12/2016	8:19	8.11	400
CMP-AS-100	8/12/2016	8:19	8.11	400
CMP-AS-160	8/12/2016	8:19	8.11	400
CMP-AS-275	8/12/2016	8:19	8.11	400

DTW = Depth to Water
DTB = Depth to Bottom
All measurments from top of casing

Table 3
Summary of Well Performance and Sample Collection
August 2016
Ringwood Mines/Landfill Superfund Site

Well ID	Well Diameter	Date Sampled	Purge Rate (discharge seconds/ recharge seconds)	Volume Purged (ml) Prior to Sample Collection	Analytical Samples Collected	Purge Time (minutes)	Purge Rate (milliliters per minute)
Peters Mine Pit Area							
RW-3(77-87)	1" ZIST	08/24/2016	10 sec/60 sec	1600	Full Suite	15	125
RW-3DS (155-160)	1" ZIST	8/23/2016	15 sec/60 sec	800	Full Suite	10	120
RW-3DD (175-180)	1" ZIST	08/23/2016	10 sec/60 sec	800	Full Suite	10	90
RW-4A(62-72)	1" ZIST	8/25/2016	10 sec/60 sec	1600	Full Suite	15	110
RW-4A(113-123)	1" ZIST	8/24/2016	10 sec/60 sec	1600	Full Suite	15	110
RW-4(333-343)	1" ZIST	8/24/2016	10 sec/60 sec	1600	Full Suite	15	110
RW-4(393-403)	1" ZIST	8/24/2016	15 sec/45 sec	1600	Full Suite	16	100
RW-5A (54-74)	2"	08/18/2016	5sec/10 sec	1000**	Full Suite	50	200
RW-5 (99-119)	2"	08/18/2016	5sec/10 sec	9000**	Full Suite	45	200
RW-6A(58-78)	2"	08/18/2016	5sec/10 sec	9800**	Full Suite	35	280
RW-6(99-119)	2"	8/18/2016	5sec/10 sec	7000**	Full Suite	35	200
RW-7 (99-119)	2"	8/18/2016	5sec/10 sec	8000**	Full Suite	40	200
RW-11S(236-241)	1" ZIST	8/23/2016	10 sec/60 sec	800	Full Suite	10	150
RW-11D(262-267)	1" ZIST	08/23/2016	10 sec/60 sec	800	Full suite	30	50
RW-13(71-91)	2"	8/25/2016	5sec/10 sec	4800**	Full Suite	40	120
RW-13(100-120)	ZIST	8/25/2016	20sec/60 sec	2400	VOCs, SVOCs, PCBs, Cyanide	48	40
RW-13(150-170)	ZIST	8/25/2016	10 sec/60 sec	3200	Full Suite	22	150
RW-14S(135-153)	ZIST	08/29/2016	10 sec/60 sec	3200	Full Suite	40	90
RW-14D(175-185)	ZIST	08/29/2016	10 sec/60 sec	1600	Full Suite	11	125
RW-15S(110-120)	ZIST	08/24/2016	10 sec/60 sec	1600	Full Suite	16	100
RW-15D(127-137)	ZIST	8/24/2016	10 sec/60 sec	1600	Full Suite	16	100
OB-11R	2"	8/17/2016	5sec/10 sec	7987**	Full Suite	40	200
OB-15B	4"	8/17/2016	5sec/10 sec	9994**	Full Suite	50	200
OB-19	2"	8/17/2016	5sec/10 sec	11015**	Full Suite	50	220
OB-20A	2"	8/18/2016	5sec/10 sec	8404**	Full Suite	35	240
OB-20B	2"	8/18/2016	5sec/10 sec	6587**	Full Suite	30	220
OB-21	2"	8/18/2016	5sec/10 sec	11015**	Full Suite	55	200
OB-25	2"	8/18/2016	5sec/10 sec	5527**	Full Suite	35	160
OB-27	2"	8/17/2016	5sec/10 sec	9010**	Full Suite	45	200
OB-28	2"	8/15/2016	5sec/10 sec	18738**	Full Suite	75	250
OB-31	2"	8/17/2016	5sec/10 sec	6019**	Full Suite	30	220
OB-32	2"	8/17/2016	5sec/10 sec	8404**	Full Suite	35	240
OB-33	2"	8/17/2016	5sec/10 sec	9010**	Full Suite	45	200
PMS-50	2"	08/23/16	continuous	17500*	Full Suite	35	500
PMS-180	2"	08/23/2016	continuous	17500*	Full Suite	50	350
PMS-230	2"	08/23/2016	continuous	22500*	Full Suite	45	500
SC-1	2"	08/19/2016	5sec/10 sec	11700**	Full Suite	45	260

- Color indicates very slow recharge and partial laboratory suite collected
- Color indicates no recharge or lack of adequate volume for sample collection
- Color indicates full analytical suite collected. Note, some zones recharged slower than others
- Color indicates very slow recharge with samples collected over a 24-hour period

ZIST - Zone Isolation System Technology monitoring well

** - Indicates monitoring well was purged with a bladder pump utilizing low-flow sample procedures

* - Indicates monitoring well was purged with a 2 inch Grundfos Pump and drop tubing

Table 3
Summary of Well Performance and Sample Collection
August 2016
Ringwood Mines/Landfill Superfund Site

Well ID	Well Diameter	Date Sampled	Purge Rate (discharge seconds/ recharge seconds)	Volume Purged (ml) Prior to Sample Collection	Analytical Samples Collected	Purge Time (minutes)	Purge Rate (milliliters per minute)
Cannon Mine Pit Area							
RW-1(64-74)	1" ZIST	8/23/2016	Well Dry	NS	None	NS	NS
RW-1(131-141)	1" ZIST	8/23/2016	Well Dry	NS	None	NS	NS
RW-2(279-289)	1" ZIST	8/22/2016	10 sec/60 sec	1600	Full Suite	20	100
RW-2(452-462)	1" ZIST	8/22/2016	20 sec/45 sec	1600	Full Suite	36	50
RW-8(163-173)	1" ZIST	8/25/2016	15 sec/60 sec	1600	Full Suite	16	100
RW-8(204-214)	1" ZIST	8/25/2016	15 sec/60 sec	1600	Full Suite	22	75
RW-8A(47-57)	1" ZIST	8/25/2016	Well Dry	Well Dry	None	N/A^	NS
RW-9(139-149)	1" ZIST	8/29/2016	Well dry	Well Dry	None	N/A^	NS
RW-9(206-216)	1" ZIST	08/29/2016 & 06/30/2016	15 sec/60 sec	1300 ml on 08/29/2016	SVOVs, TAL Metals (Total), C	32	50
RW-9A(25-35)	1" ZIST	8/29/2016	Well dry	Well dry	None	N/A^	-
RW-9A(85-95)	1" ZIST	08/29/2016 & 08/30/2016	10 sec/60 sec	800	Full Suite	16	50
RW-10(120-130)	1" ZIST	8/29/2016	10 sec/60 sec	1600	Full Suite	36	45
RW-10(185-195)	1" ZIST	8/26/2016	10 sec/60 sec	1600	Full Suite	16	100
RW-10A(51-61)	1" ZIST	8/29/2016	10 sec/60 sec	1600	Full Suite	40	40
RW-10A(75-85)	1" ZIST	8/26/2016	15 sec/30 sec	1600	Full Suite	20	80
OB-2	6"	8/17/2016	5sec/10 sec	13590**	Full Suite	40	340
OB-3	6"	8/16/2016	5sec/10 sec	12795**	Full Suite	40	320
OB-4	6"	8/17/2016	5sec/10 sec	9804**	Full Suite	45	240
OB-5	6"	8/18/2016	5sec/10 sec	7192**	Full Suite	30	240
OB-6	6"	8/18/2016	5sec/10 sec	8403**	Full Suite	35	240
OB-7	4"	8/18/2016	5sec/10 sec	7685**	Full Suite	40	220
OB-12	6"	8/17/2016	5sec/10 sec	11205**	Full Suite	40	280
OB-13	6"	8/16/2016	5sec/10 sec	19795**	Full Suite	45	320
OB-30A	2"		Well Dry	NS	None	NS	NS
OB-30B	2"	8/17/2016	5sec/10 sec	9615**	Full Suite	40	240
OB-30C	2"	8/17/2016	5sec/10 sec	7684**	Full Suite	35	220
CMS-50	2"	8/22/2016	continuous	14950*	Full Suite	30	500
CMS-100	2"	8/22/2016	continuous	15750*	Full Suite	45	350
CMS-160	2"	8/22/2016	continuous	20250*	Full Suite	45	450
CMS-275	2"	8/22/2016	continuous	17500*	Full Suite	50	350
SC-2	2"	8/17/2016	5sec/10 sec	9000**	Full Suite	45	200

- Color indicates very slow recharge and partial laboratory suite collected
- Color indicates no recharge or lack of adequate volume for sample collection
- Color indicates full analytical suite collected. Note, some zones recharged slower than others
- Color indicates very slow recharge with samples collected over a 24-hour period

ZIST - Zone Isolation System Technology monitoring well
** - Indicates monitoring well was purged with a bladder pump utilizing low-flow sample procedures
* - Indicates monitoring well was purged with a 2 inch Grundfos Pump and drop tubing
NS - Not sampled

Table 3
Summary of Well Performance and Sample Collection
August 2016
Ringwood Mines/Landfill Superfund Site

Well ID	Well Diameter	Date Sampled	Purge Rate (discharge seconds/ recharge seconds)	Volume Purged (ml) Prior to Sample Collection	Analytical Samples Collected	Purge Time (minutes)	Purge Rate (milliliters per minute)
O'Connor Disposal Area							
OB-14A	4"	8/16/2016	5sec/10 sec	9615**	Full Suite	40	240
OB-14B	4"	8/16/2016	5sec/10 sec	9010**	Full Suite	45	200
OB-16	4"	8/16/2016	5sec/10 sec	7192**	Full Suite	30	240
OB-17	4"	8/16/2016	5sec/10 sec	8404**	Full Suite	35	240
OB-18	4"	8/16/2016	5sec/10 sec	12492**	Full Suite	50	250
OB-24	2"	8/16/2016	5sec/10 sec	8404**	Full Suite	35	240
OB-22	2"		Well Dry	NS	None	NS	NS
OB-23	2"		Well Dry	NS	None	NS	NS
OB-10	4"	8/16/2016	5sec/10 sec	11205**	Full Suite	35	320
OB-29	2"	8/16/2016	5sec/10 sec	14385**	Full Suite	45	320
RW-12 (55-65)	1" ZIST	8/22/2016	15 sec/60 sec	1600	Full Suite	50	50
RW-12 (130-140)	1" ZIST	8/25/2016	10sec/60sec	1600	Full Suite	13	100
RW-16 (52-62)	2"	8/16/2016	5sec/10 sec	7000	Full Suite	35	200

- Color indicates very slow recharge and partial laboratory suite collected
- Color indicates no recharge or lack of adequate volume for sample collection
- Color indicates full analytical suite collected. Note, some zones recharged slower than others
- Color indicates very slow recharge with samples collected over a 24-hour period

ZIST - Zone Isolation System Technology monitoring well
** - Indicates monitoring well was purged with a bladder pump utilizing low-flow sample procedures
NS - Not sampled

Table 4A
Summary of Historical Groundwater Geochemical Data: Overburden (2006-2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Temperature (C°)	Conductivity (mmhos/cm)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
OB-1	5 - 31'	9/26/2006	4.70	143.5	5.59	14.42	0.059	4.98
		4/6/2007	2.00	109.3	6.12	7.02	0.075	8.87
		4/30/2008	2.70	196.9	5.57	9.04	0.033	7.52
		9/8/2008	0.50	364.3	5.66	14.51	0.083	6.00
		7/2/2009	1.10	309.3	5.60	12.57	0.051	5.84
		10/22/2009	0.37	124.4	5.52	13.08	0.054	4.66
		5/26/2010	1.21	211.6	5.69	10.63	0.036	6.67
		5/17/2011	6.30	39.0	6.82	10.27	0.169	3.12
		4/26/2012	3.20	237.0	5.73	9.37	0.048	5.93
		11/5/2013	NS	NS	NS	NS	NS	NS
		8/10/2015	NS	NS	NS	NS	NS	NS
		8/17/2016	NS	NS	NS	NS	NS	NS
OB-2	8 - 42'	10/2/2006	2.30	161.6	5.91	11.22	0.110	6.28
		4/6/2007	1.00	60.2	6.08	10.12	0.120	6.28
		4/28/2008	0.00	18.5	5.95	9.82	0.990	9.36
		9/17/2008	1.32	152.9	5.13	14.31	0.129	8.41
		6/30/2009	0.65	183.1	5.91	10.20	0.099	7.47
		10/20/2009	0.00	181.0	5.99	12.75	0.096	7.81
		5/25/2010	1.52	153.1	5.77	12.93	0.065	8.53
		5/16/2011	1.46	152.1	5.81	10.83	0.145	6.19
		4/19/2012	0.00	276.0	5.65	13.07	0.157	7.42
		11/18/2013	0.00	223.0	5.96	12.57	0.188	4.66
		9/15/2014	0.00	205.0	5.46	13.24	0.172	6.14
		8/12/2015	16.40	224.9	6.05	14.70	0.124	7.00
		8/17/2016	0.00	396.0	6.02	13.67	0.128	6.03
OB-3	9 - 24'	9/28/2006	18.20	172.3	5.76	13.55	0.088	6.05
		4/3/2007	2.50	163.0	5.81	7.76	0.096	8.60
		4/28/2008	21.00	170.1	5.97	9.11	0.072	6.47
		9/9/2008	9.86	236.2	5.63	13.69	0.252	4.08
		6/30/2009	0.40	115.0	6.21	10.43	0.110	4.09
		10/20/2009	22.00	-79.7	6.31	13.42	0.077	0.31
		5/25/2010	30.00	61.0	6.34	11.11	0.072	2.36
		5/18/2011	36.70	158.0	6.17	11.59	0.188	4.78
		4/13/2012	2.60	202.0	6.65	9.65	0.145	8.64
		11/5/2013	25.50	95.0	6.74	12.29	0.140	3.27
		9/8/2014	3.80	96.0	6.64	13.57	0.177	4.23
		8/10/2015	28.60	84.1	6.37	13.80	0.749	5.13
		8/16/2016	14.10	248.0	6.35	15.38	0.145	5.57
OB-4	28 - 61'	9/29/2006	7.90	-23.8	6.49	13.37	0.877	0.13
		4/6/2007	6.00	-142.2	7.18	12.06	0.966	0.29
		4/28/2008	0.00	-52.0	6.49	12.40	0.689	0.25
		9/10/2008	2.14	-32.4	6.87	13.79	0.377	0.25
		7/1/2009	9.56	-80.0	6.73	12.66	0.338	0.06
		10/20/2009	11.40	-25.7	6.81	14.61	0.305	0.44
		5/26/2010	5.35	-41.9	5.77	13.81	0.790	0.19
		5/17/2011	0.00	70.0	5.24	12.28	0.961	1.12
		4/27/2012	16.20	-59.0	6.65	11.80	0.902	1.25

Table 4A
Summary of Historical Groundwater Geochemical Data: Overburden (2006-2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Temperature (C°)	Conductivity (mmhos/cm)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
		11/13/2013	2.10	-115.0	6.72	12.72	1.170	1.01
		9/15/2014	0.00	-99.0	6.92	18.35	1.020	0.65
		8/10/2015	0.00	-83.0	6.71	13.72	1.050	3.70
		8/17/2016	0.00	-61.0	6.63	15.07	0.813	0.00
OB-5	18 - 63'	10/2/2006	6.20	-65.4	6.47	14.02	0.914	0.13
		4/4/2007	23.00	-69.3	6.47	9.42	0.966	0.30
		4/28/2008	2.80	-87.5	6.64	10.33	0.918	0.26
		9/9/2008	0.80	-53.2	6.37	13.39	1.006	0.38
		7/1/2009	18.70	-112.1	7.01	10.83	0.557	0.09
		10/21/2009	16.20	-91.0	6.87	11.84	0.479	0.55
		5/26/2010	5.25	-170.6	6.70	13.75	0.659	0.18
		5/17/2011	0.00	-175.0	7.17	10.95	0.998	0.32
		4/19/2012	0.00	-177.0	7.40	15.76	0.861	2.12
		11/11/2013	10.20	-172.0	7.32	12.39	0.705	2.28
		9/8/2014	12.10	-119.0	7.08	15.10	0.864	0.50
		8/10/2015	0.00	-136.0	6.72	13.20	0.798	5.00
		8/18/2016	0.00	-55.0	6.41	14.36	0.874	0.00
OB-6	10 - 36'	9/26/2006	9.00	-3.0	6.11	18.00	0.460	0.22
		4/5/2007	4.00	66.5	6.60	6.47	0.376	0.22
		5/1/2008	0.92	-23.8	6.46	8.85	0.386	0.35
		9/8/2008	1.10	163.0	4.07	19.16	0.559	0.37
		7/1/2009	0.54	-18.5	6.44	15.68	0.289	0.28
		10/19/2009	NR	NR	NR	NR	NR	NR
		11/15/2013	2.90	98.0	6.37	14.13	0.204	1.08
		9/8/2014	0.00	60.0	6.49	14.23	0.219	1.07
		8/6/2015	16.60	23.0	6.32	13.02	0.231	0.00
		8/18/2016	20.80	25.0	6.18	14.64	0.249	0.00
OB-7	14 - 42'	9/28/2006	9.20	-72.5	6.79	13.31	0.652	0.13
		4/5/2007	19.00	2.1	6.80	8.76	0.591	0.83
		4/29/2008	23.00	-68.4	6.82	9.69	0.675	0.62
		9/10/2008	2.49	-30.6	6.96	12.74	0.500	0.32
		7/1/2009	4.11	-17.8	6.56	11.90	0.480	0.31
		10/21/2009	7.82	-111.8	7.18	12.42	0.406	0.19
		5/25/2010	14.80	-66.2	6.74	12.41	0.349	0.24
		5/17/2011	8.90	-101.0	6.99	10.38	0.585	1.93
		4/19/2012	0.00	-50.0	7.16	11.90	0.625	1.50
		11/12/2013	25.20	-40.0	6.97	11.23	0.668	1.67
		9/5/2014	24.60	-39.0	6.98	13.30	0.622	6.65
		8/24/2015	17.80	-26.0	6.91	12.82	0.539	0.00
		8/18/2016	5.70	-33.0	6.86	13.87	0.604	4.46
		10/2/2006	0.00	-38.5	6.62	14.97	0.158	0.19
		4/3/2007	3.00	9.7	6.58	4.90	0.097	0.25
		4/29/2008	1.70	192.8	5.01	10.88	0.120	3.72

Table 4A
Summary of Historical Groundwater Geochemical Data: Overburden (2006-2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Temperature (C°)	Conductivity (mmhos/cm)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
OB-10	10 - 20'	9/10/2008	0.22	603.0	5.39	17.82	0.126	0.84
		7/1/2009	6.61	-36.1	6.45	15.73	0.120	0.27
		10/21/2009	4.01	57.1	6.15	11.96	0.096	0.53
		5/26/2010	0.62	170.1	6.40	11.71	0.099	2.39
		5/17/2011	38.40	205.0	6.10	10.53	0.141	3.17
		4/20/2012	0.00	114.0	6.68	13.66	0.131	3.02
		11/14/2013	1.40	175.0	6.47	13.61	0.130	6.99
		9/9/2014	0.00	224.0	6.34	11.59	0.140	6.91
		8/14/2015	6.50	136.0	6.28	13.10	0.108	2.26
		8/16/2016	0.00	287.0	7.00	11.74	0.126	11.01
OB-11R	25 - 40'	6/11/2010	35.80	-92.5	6.63	11.51	0.340	0.29
		5/18/2011	56.30	60.0	5.57	10.27	0.570	0.60
		4/26/2012	2.00	-109.0	6.64	10.10	0.489	1.21
		11/8/2013	36.00	-99.0	6.73	10.82	0.570	0.30
		9/11/2014	0.00	-104.0	6.66	13.30	0.538	1.87
		4/21/2015	17.80	-99.0	6.56	10.07	0.583	0.00
		6/1/2015	12.40	-111.0	6.56	10.37	0.520	16.14
		8/6/2015	13.80	-100.0	6.94	12.28	0.536	2.55
		5/25/2016	22.30	121.4	6.61	12.70	0.436	0.77
		8/17/2016	33.50	-81.0	6.26	12.34	0.620	0.95
OB-12	9 - 40'	9/28/2006	1.20	210.4	5.61	13.03	0.084	6.00
		4/3/2007	0.20	186.5	5.41	8.30	0.086	8.40
		4/28/2008	NR	36.8	5.58	8.69	0.072	6.59
		9/9/2008	0.00	194.2	5.77	11.87	0.065	6.95
		6/30/2009	1.79	161.1	5.84	11.22	0.064	4.97
		10/20/2009	0.00	189.9	5.62	12.79	0.073	1.79
		5/25/2010	0.42	209.6	5.31	11.53	0.052	4.98
		5/17/2011	30.00	192.9	5.39	10.68	0.052	4.20
		4/19/2012	0.00	278.0	5.85	11.36	0.087	5.45
		11/18/2013	0.20	203.0	5.89	14.49	0.107	9.78
		9/15/2014	0.00	424.0	5.94	10.63	0.107	5.10
		8/10/2015	65.70	239.6	5.73	11.60	0.917	5.73
		8/17/2016	0.00	469.0	4.77	12.41	0.071	6.18
OB-13	8 - 60'	10/3/2006	2.60	136.0	5.86	12.24	0.103	6.76
		4/3/2007	0.70	195.4	5.55	10.83	0.079	9.22
		4/28/2008	0.40	184.6	5.93	9.67	0.065	9.61
		9/10/2008	0.10	403.5	5.99	11.99	0.152	7.04
		7/1/2009	0.00	204.0	5.70	11.30	0.063	8.71
		10/21/2009	0.00	60.6	6.10	11.53	0.850	6.48
		5/25/2010	2.38	225.7	5.69	10.90	0.044	8.92
		5/17/2011	0.00	249.0	5.50	10.58	0.072	10.78
		4/20/2012	0.00	142.0	6.30	11.49	0.104	10.07
		11/13/2013	5.00	-73.0	5.57	11.46	0.111	1.55
		9/8/2014	1.50	138.0	6.21	13.65	0.089	2.20
		8/10/2015	40.48	146.4	5.99	11.60	0.75	2.92
		8/16/2016	0.00	396.0	5.98	13.00	0.104	6.21

Table 4A
Summary of Historical Groundwater Geochemical Data: Overburden (2006-2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Temperature (C°)	Conductivity (mmhos/cm)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
OB-14A	4 - 14'	9/27/2006	4.82	-62.0	6.35	16.23	0.962	0.69
		4/9/2007	5.00	-98.3	6.30	12.90	0.938	0.41
		4/30/2008	8.80	-79.6	6.21	13.96	0.964	0.35
		9/11/2008	1.39	-20.3	5.64	15.27	0.860	0.89
		7/6/2009	1.10	-27.3	5.49	13.97	0.715	0.44
		10/23/2009	10.55	-20.3	6.13	13.80	0.676	0.73
		5/28/2010	0.93	78.5	6.10	12.59	0.693	0.35
		5/19/2011	63.70	-71.0	6.35	12.33	0.781	5.34
		4/18/2012	0.50	-55.0	6.86	14.30	0.610	1.98
		11/6/2013	0.00	2.0	6.76	13.14	0.891	2.02
		9/11/2014	0.00	-76.0	6.26	14.36	0.805	1.14
		8/13/2015	14.70	-58.0	6.08	17.00	0.701	0.05
		5/23/2016	18.50	-10.4	3.78	13.70	0.268	0.41
		8/16/2016	0.00	-52.0	6.34	14.95	0.818	0.22
OB-14B	25 - 35'	9/27/2006	1.80	-30.8	6.75	14.83	0.871	0.23
		4/9/2007	3.00	-12.9	6.69	14.00	0.954	0.28
		4/30/2008	14.70	6.8	6.76	14.01	0.852	0.24
		9/11/2008	12.30	-4.6	6.30	14.29	0.807	0.37
		7/6/2009	15.90	44.2	6.65	14.59	0.762	0.45
		10/20/2009	1.20	16.4	6.93	13.16	0.646	0.24
		5/28/2010	1.78	-17.9	6.62	13.61	0.709	0.31
		5/19/2011	29.10	-7.0	6.69	13.97	0.911	0.47
		4/18/2012	9.70	-30.0	7.07	13.45	0.950	1.20
		11/6/2013	16.80	-2.0	7.14	12.69	0.803	0.70
		9/11/2014	21.20	-83.0	6.81	14.13	0.797	0.97
		8/13/2015	0.00	-99.0	6.85	13.25	0.739	1.13
		5/23/2016	3.03	38.0	4.07	13.81	0.285	0.36
		8/15/2016	3.00	22.0	6.44	14.52	0.794	0.00
OB-15B	25 - 35'	10/3/2006	38.90	34.8	8.21	13.03	0.199	0.16
		4/12/2007	147.00	171.1	7.87	5.38	0.212	0.32
		5/2/2008	11.00	32.1	7.89	9.91	0.186	0.28
		9/16/2008	6.10	157.6	7.60	16.03	0.171	0.92
		7/2/2009	13.30	-53.3	7.03	15.77	0.158	0.12
		10/26/2009	13.80	NR	7.82	13.48	0.135	1.86
		6/3/2010	3.95	76.6	6.18	20.12	0.158	0.63
		5/23/2011	2.00	77.0	7.65	13.59	0.204	1.53
		4/24/2012	0.00	135.0	7.38	14.84	0.196	0.88
		11/20/2013	44.50	90.0	7.62	9.57	0.171	2.06
		9/5/2014	29.10	-8.0	7.93	14.66	0.202	0.91
		8/24/2015	44.80	-13.9	8.09	14.80	0.173	0.01
		8/17/2016	42.90	-28.0	7.73	19.78	0.153	2.03
		9/27/2006	0.80	-44.7	6.59	15.02	0.955	0.82
		4/10/2007	2.80	-20.6	6.63	8.65	0.985	0.32
		5/1/2008	0.00	-66.1	6.39	10.50	0.914	0.21
		9/11/2008	4.27	-41.6	6.21	15.43	0.960	0.38
		7/8/2009	1.07	-33.4	6.69	13.21	0.795	0.47
		10/23/2009	1.67	-39.8	6.36	12.87	0.762	0.92

Table 4A
Summary of Historical Groundwater Geochemical Data: Overburden (2006-2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Temperature (C°)	Conductivity (mmhos/cm)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
OB-16	5 - 15'	5/27/2010	6.85	-92.7	6.46	12.07	0.768	0.16
		5/19/2011	15.80	77.0	5.39	12.02	0.997	0.73
		4/17/2012	25.70	-66.0	6.87	14.80	1.020	1.76
		11/6/2013	0.00	-64.0	6.79	13.42	1.000	2.40
		9/10/2014	0.00	-87.0	6.66	14.70	0.944	1.30
		8/13/2015	11.30	-61.0	6.45	16.00	0.915	1.56
		5/23/2016	7.62	24.3	4.00	11.80	0.719	0.20
		8/16/2016	0.00	-66.0	5.72	15.79	1.020	4.19
OB-17	3 - 13'	9/27/2006	6.20	18.2	6.39	15.01	0.612	0.66
		4/10/2007	9.00	114.1	6.44	6.45	0.656	0.50
		5/1/2008	0.80	45.4	6.19	9.44	0.575	0.57
		9/11/2008	1.64	368.6	6.01	15.92	0.181	1.04
		7/8/2009	10.00	17.0	6.52	12.81	0.571	0.61
		10/23/2009	12.30	37.3	6.49	12.59	0.564	0.33
		5/27/2010	7.45	4.8	6.37	11.18	0.521	0.18
		5/19/2011	0.00	35.0	6.12	11.85	0.192	0.91
		4/17/2012	21.70	-12.0	6.76	10.20	0.797	1.56
		11/6/2013	15.30	89.0	6.54	11.59	0.739	1.70
		9/3/2014	90.00	-26.0	6.91	16.30	0.777	1.83
		8/13/2015	45.00	-8.0	6.42	15.45	0.647	0.00
		5/24/2016	22.10	-54.1	4.90	10.70	0.522	0.52
		8/16/2016	1.60	10.0	5.77	15.04	0.711	5.49
OB-18	10 - 20'	9/26/2006	0.36	57.6	6.74	14.45	0.262	2.99
		4/10/2007	1.00	150.3	6.88	6.65	0.357	2.39
		5/1/2008	0.41	53.2	6.67	8.90	0.296	1.70
		9/11/2008	3.59	195.4	5.31	13.87	0.276	2.48
		7/8/2009	17.70	216.7	6.65	11.84	0.241	0.65
		10/23/2009	3.57	38.3	6.94	12.30	0.244	3.24
		5/27/2010	3.53	106.2	6.94	10.19	0.231	2.45
		5/16/2011	0.00	204.0	5.84	8.69	0.605	0.92
		4/17/2012	0.20	87.0	7.13	10.84	0.365	2.21
		11/6/2013	0.00	170.0	6.80	13.92	0.356	1.98
		9/3/2014	1.90	192.0	6.71	12.32	0.352	0.59
		8/13/2015	22.80	118.0	6.72	11.68	0.33	0.66
		5/23/2016	3.09	230.2	6.93	10.80	0.249	1.14
		8/16/2016	3.50	265.0	6.86	13.33	0.272	5.56
OB-19	5 - 20'	10/3/2006	10.10	-61.3	6.36	14.32	0.254	0.13
		4/9/2007	2.00	-40.7	6.22	6.23	0.160	0.18
		10/15/2007	NR	-52.7	6.60	NR	NR	6.22
		4/29/2008	0.00	-66.2	6.05	9.30	0.100	0.19
		9/12/2008	6.32	-16.5	5.91	14.15	0.193	0.28
		7/7/2009	12.00	-58.2	5.63	11.60	0.215	0.27
		10/27/2009	2.70	-87.1	6.35	12.43	0.157	0.19
		6/11/2010	5.85	-62.7	6.27	10.67	0.100	0.18
		5/20/2011	0.00	-23.0	6.16	10.70	0.190	1.67
		5/25/2012	0.00	-50.0	6.23	10.14	0.161	0.80
		11/11/2013	49.80	-38.0	6.34	12.25	0.127	2.58

Table 4A
Summary of Historical Groundwater Geochemical Data: Overburden (2006-2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Temperature (C°)	Conductivity (mmhos/cm)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
		9/4/2014	1.70	-89.0	5.81	14.48	0.217	3.44
		8/5/2015	11.40	-86.0	6.37	17.10	0.138	6.00
		5/25/2016	2.88	185.8	6.30	11.00	0.187	6.45
		8/17/2016	17.90	-8.0	5.38	16.97	0.172	0.88
OB-20A	5 - 20'	10/4/2006	98.70	28.9	5.61	14.65	0.388	0.17
		4/3/2007	21.00	-86.9	6.27	11.61	0.467	0.30
		10/11/2007	NR	-75.1	6.50	NR	NR	1.20
		4/29/2008	34.00	-44.2	6.26	6.64	0.221	0.33
		9/15/2008	32.10	20.1	4.93	13.49	0.234	3.05
		7/9/2009	9.90	-13.0	6.00	10.19	0.200	0.26
		10/28/2009	79.50	-24.4	5.96	12.96	0.217	0.73
		6/2/2010	5.74	-87.0	6.16	11.82	0.244	0.23
		5/18/2011	19.70	110.0	5.09	8.19	0.227	0.60
		4/27/2012	32.70	-26.0	6.15	10.22	0.208	0.78
		11/8/2013	41.00	-82.0	6.35	11.74	0.285	0.38
		9/5/2014	49.80	-141.0	5.78	12.98	0.299	0.85
		4/21/2015	12.80	-40.0	6.25	10.30	0.26	0.00
		6/1/205	5.00	-10.0	6.38	11.00	0.213	0.55
		8/5/2015	80.40	-83.0	6.30	11.47	0.251	0.00
		5/26/2016	1.70	-105.8	6.62	11.80	0.182	0.29
		8/18/2016	6.70	5.0	6.04	11.96	0.200	0.31
OB-20B	24 - 34'	10/4/2006	197.00	-57.0	6.35	11.95	0.530	0.14
		4/5/2007	36.00	-50.4	6.27	10.28	0.527	0.20
		10/11/2007	NR	-51.7	6.34	NR	NR	0.35
		4/29/2008	20.00	-42.7	6.14	8.94	0.299	0.27
		9/15/2008	22.90	89.6	4.03	11.00	0.374	0.00
		7/9/2009	12.90	19.7	6.21	9.93	0.304	0.28
		10/28/2009	12.90	19.7	6.21	9.93	0.304	0.28
		6/2/2010	10.40	-29.4	6.93	12.40	0.215	0.43
		5/18/2011	28.20	-63.0	6.45	9.45	0.355	1.42
		4/27/2012	11.90	-42.0	6.46	13.30	0.385	1.04
		11/8/2013	20.70	-65.0	6.16	11.22	0.520	4.11
		9/5/2014	24.60	-71.0	6.38	13.54	0.436	4.47
		4/21/2015	25.10	-41.0	6.15	11.70	0.555	0.00
		6/1/2015	27.90	-51.0	6.10	10.05	0.484	0.00
		8/5/2015	25.30	-67.0	5.64	12.50	0.478	0.00
		5/26/2016	19.70	-38.9	6.31	11.00	0.383	0.31
		8/18/2016	6.30	-44.0	6.30	11.81	0.538	5.88
		10/5/2006	74.70	132.9	5.96	15.66	0.123	0.64
		4/9/2007	816.00	32.6	6.42	7.38	0.101	5.83
		10/15/2007	NR	239.8	5.19	NR	NR	3.15
		4/29/2008	60.00	48.1	6.17	8.95	0.088	5.43
		9/12/2008	160.00	485.0	5.68	12.74	0.107	6.65
		7/7/2009	173.00	147.4	5.58	11.96	0.08	5.62

Table 4A
Summary of Historical Groundwater Geochemical Data: Overburden (2006-2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Temperature (C°)	Conductivity (mmhos/cm)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
OB-21	6 - 21'	10/27/2009	29.00	-12.8	6.46	12.30	0.082	3.43
		6/1/2010	205.00	219.3	5.92	12.60	0.008	4.17
		5/18/2011	39.95	244.0	6.01	11.25	0.110	8.49
		4/24/2012	52.40	238.0	5.72	9.37	0.113	1.99
		11/7/2013	49.80	201.0	6.48	12.67	0.124	1.14
		9/4/2014	NR	195.0	8.14	14.50	0.121	2.48
		4/20/2015	108.00	201.0	5.94	9.42	0.105	0.00
		8/6/2015	202.00	76.0	6.28	12.54	0.113	2.51
		8/18/2016	40.50	241.0	6.08	14.18	0.111	2.46
OB-22	10 - 20'	11/29/2006	NR	-129.0	6.30	11.82	0.423	5.10
		4/4/2007	NR	32.6	6.42	7.94	0.313	5.83
		5/1/2008	63.00	225.3	5.99	9.87	0.345	8.57
		9/12/2008	NR	NR	NR	NR	NR	NR
		7/8/2009	222.00	347.4	6.12	15.12	0.266	4.47
		10/26/2009	NR	NR	NR	NR	NR	NR
		5/28/2010	21.50	203.3	5.83	13.50	0.237	6.41
		5/19/2011	98.00	98.2	6.38	16.69	0.536	4.99
		11/5/2013	NS	NS	NS	NS	NS	NS
		9/5/2014	NS	NS	NS	NS	NS	NS
		8/18/2015	NS	NS	NS	NS	NS	NS
		8/17/2016	NS	NS	NS	NS	NS	NS
OB-23	10 - 20'	11/28/2006	8.24	-62.7	6.44	14.70	1.118	0.27
		4/12/2007	NR	NR	NR	NR	NR	NR
		5/2/2008	8.70	-60.0	6.62	12.75	2.4	0.46
		9/12/2008	NR	NR	NR	NR	NR	NR
		7/8/2009	19.80	-35.3	6.34	14.92	0.969	1.02
		10/26/2009	NR	NR	NR	NR	NR	NR
		5/28/2010	4.57	-25.7	5.69	14.43	0.897	0.42
		5/19/2011	0.00	-85.0	6.28	12.70	1.18	0.69
		11/5/2013	NS	NS	NS	NS	NS	NS
		9/5/2014	NS	NS	NS	NS	NS	NS
		8/18/2015	NS	NS	NS	NS	NS	NS
		8/18/2016	NS	NS	NS	NS	NS	NS
OB-24	5 - 15'	11/28/2006	3.97	143.5	7.09	11.64	0.701	0.25
		4/11/2007	5.10	90.0	7.24	7.76	0.840	0.25
		4/30/2008	5.30	45.5	7.07	9.08	0.780	0.27
		9/11/2008	33.90	244.4	5.28	15.49	0.738	0.87
		7/8/2009	9.80	401.4	6.57	13.32	0.588	0.35
		10/26/2009	6.40	117.4	6.91	14.03	0.574	0.4
		5/28/2010	5.75	131.5	6.92	10.95	0.477	0.27
		5/19/2011	30.90	85.0	7.05	11.73	0.774	0.99
		4/18/2012	26.60	175.0	7.39	9.63	0.812	1.07
		11/6/2013	20.00	189.0	7.37	12.33	0.773	0.69
		9/3/2014	0.00	128.0	7.61	13.45	0.82	10.40
		8/13/2015	27.20	-35.0	7.27	13.85	0.688	3.55
		5/24/2016	38.70	-97.1	5.68	10.60	0.626	0.66
		8/16/2016	7.90	47.0	7.23	14.77	0.731	0.31

Table 4A
Summary of Historical Groundwater Geochemical Data: Overburden (2006-2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Temperature (C°)	Conductivity (mmhos/cm)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
OB-25	10 - 20'	11/28/2006	3.97	143.5	7.09	11.64	0.701	0.25
		4/12/2007	NR	NR	NR	NR	NR	NR
		4/29/2008	550.00	204.3	7.13	8.70	0.623	10.49
		9/18/2008	300.00	119.7	6.75	16.67	0.587	7.42
		7/6/2009	284.00	411.8	6.26	14.43	0.484	7.20
		10/26/2009	450.00	201.7	6.91	13.04	0.387	6.25
		6/1/2010	797.00	166.5	6.60	13.69	0.539	4.27
		5/20/2011	0.00	170.0	6.95	13.94	0.505	8.09
		4/20/2012	24.10	135.0	7.39	12.10	0.652	6.84
		11/11/2013	0.00	74.0	6.96	6.97	0.422	3.17
		9/9/2014	44.10	182.0	6.68	16.17	0.563	2.20
		8/6/2015	0.00	117.0	6.87	14.57	0.449	4.32
		8/18/2016	65.30	180.0	6.82	17.49	0.653	4.35
OB-26	9 - 24'	5/9/2008	9.00	167.0	5.45	8.82	0.065	6.03
		9/16/2008	9.96	305.7	5.49	15.99	0.135	3.86
		7/2/2009	8.70	146.4	6.12	14.09	0.079	1.77
		10/27/2009	16.40	156.9	5.57	14.60	0.066	2.28
		5/26/2010	10.30	232.4	4.63	12.90	0.052	3.95
		5/17/2011	0.00	192.0	5.96	11.01	0.077	8.12
		11/5/2013	NS	NS	NS	NS	NS	NS
		9/5/2014	NS	NS	NS	NS	NS	NS
		8/18/2015	NS	NS	NS	NS	NS	NS
		8/18/2016	NS	NS	NS	NS	NS	NS
OB-27	24.5 - 39.5'	6/2/2010	4.39	-75.9	6.29	11.51	0.300	0.31
		5/18/2011	40.20	-106.0	6.76	11.46	0.368	0.79
		4/25/2012	48.90	41.0	5.32	10.33	0.379	0.28
		11/11/2013	23.10	-94.0	6.38	11.12	0.440	0.37
		9/10/2014	44.70	-102.0	6.66	21.73	0.307	0.68
		4/21/2015	107.00	-82.0	6.50	11.11	0.440	0.00
		6/1/2015	27.20	-97.0	6.53	10.34	0.391	2.65
		8/6/2015	23.00	-87.0	6.93	13.48	0.362	0.65
		5/25/2016	17.90	-147.5	6.70	11.00	0.288	1.95
		8/17/2016	39.80	-78.0	6.12	16.39	0.357	0.15
OB-28	3 - 18'	5/27/2010	4.39	-75.9	6.29	11.51	0.300	0.31
		5/19/2011	20.60	27.0	6.65	11.41	0.939	0.48
		4/17/2012	29.60	91.0	7.02	12.20	1.010	1.14
		11/6/2013	39.10	75.0	6.88	12.69	1.030	2.10
		9/10/2014	46.50	28.0	6.76	14.81	0.918	2.44
		8/13/2015	43.00	33.0	6.69	13.07	0.892	0.00
		5/23/2016	15.80	167.6	7.01	10.90	0.709	0.20
		8/15/2016	42.50	74.0	6.50	15.13	1.020	3.96
OB-29	18 - 35'	5/11/2012	46.50	123.0	6.77	12.82	0.157	1.30
		11/14/2013	49.30	161.0	6.52	12.43	0.135	7.59
		9/9/2014	47.60	228.0	5.95	12.85	0.132	3.81
		8/12/2015	29.40	37.0	6.49	12.53	0.111	9.50
		8/16/2016	5.00	316.0	6.99	13.17	0.124	10.18

Table 4A
Summary of Historical Groundwater Geochemical Data: Overburden (2006-2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Temperature (C°)	Conductivity (mmhos/cm)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
OB-30A	8 - 18'	5/10/2012	0.00	49.0	6.64	11.21	0.391	8.37
		11/5/2013	NS	NS	NS	NS	NS	NS
		9/5/2014	NS	NS	NS	NS	NS	NS
		8/18/2015	NS	NS	NS	NS	NS	NS
		8/17/2016	NS	NS	NS	NS	NS	NS
OB-30B	21 - 36'	5/11/2012	0.00	86.0	6.57	11.72	0.390	1.03
		11/7/2013	0.00	103.0	6.28	12.49	0.313	1.59
		9/4/2014	31.40	66.0	6.44	15.48	0.326	3.56
		8/6/2015	50.30	234.0	5.26	11.34	0.283	0.00
		8/17/2016	23.30	238.0	5.98	13.55	0.356	0.11
OB-30C	40 - 50'	5/9/2012	38.90	-27.0	8.07	13.38	0.425	0.89
		11/7/2013	49.80	79.0	9.03	12.15	0.410	2.22
		9/4/2014	30.20	125.0	8.20	15.76	0.386	3.71
		8/6/2015	0.00	-130.0	8.52	12.26	0.366	8.51
		8/17/2016	39.80	186.0	8.30	13.60	0.389	1.87
OB-31	23 - 33'	8/17/2016	41.00	-76.0	6.41	13.49	0.301	6.44
OB-32	10 - 20'	8/17/2016	12.60	-103.0	6.66	14.11	0.455	0.53
OB-33	66 - 76'	8/17/2016	9.40	299.0	6.41	13.76	0.132	9.38
SC-1	64.4 - 70.9'	10/5/2006	0.40	-313.3	7.45	13.30	0.759	0.06
		4/11/2007	11.70	-18.7	5.97	8.62	0.304	0.26
		10/16/2007	NR	-42.3	6.05	NR	NR	0.26
		4/30/2008	0.00	-74.2	5.99	6.18	0.215	0.10
		9/6/2008	3.40	-73.7	5.23	10.88	0.235	1.05
		7/9/2009	14.10	49.1	5.97	14.03	0.198	0.42
		10/28/2009	20.80	-53.8	5.22	14.39	0.154	0.53
		6/2/2010	69.10	59.2	6.82	12.19	0.674	0.13
		5/18/2011	0.00	-43.0	6.33	9.93	0.176	2.07
		4/27/2012	0.00	-29.0	6.30	10.27	0.445	1.47
		11/11/2013	36.10	25.0	6.24	11.14	0.387	2.30
		9/5/2014	0.00	-45.0	5.82	14.30	0.213	1.27
		4/22/2015	23.50	-15.0	5.95	9.75	0.471	0.00
		6/2/2015	92.40	-17.0	5.71	8.86	0.41	14.89
		8/4/2015	30.30	-31.0	5.83	17.07	0.394	0.31
		5/26/2016	7.45	-83.1	6.36	19.10	0.321	0.99
		8/19/2016	13.40	-15.0	5.87	14.92	0.464	0.00
SC-2	47 - 67'	5/5/2008	46.00	-20.7	6.36	20.03	0.600	0.84
		9/17/2008	16.00	-9.1	5.96	15.92	0.553	1.95
		6/30/2009	32.80	166.1	6.17	16.34	0.519	0.73
		10/20/2009	26.40	-108.2	6.50	13.63	0.317	0.49
		5/25/2010	6.10	132.9	6.27	15.79	0.321	0.62
		5/16/2011	59.20	237.0	6.05	14.00	0.571	3.25
		4/19/2012	0.00	155.0	6.69	13.92	0.465	1.14
		11/15/2013	25.90	53.0	6.34	12.44	0.508	0.69
		9/15/2014	0.00	318.0	6.51	14.57	0.476	1.22
		8/12/2015	23.60	136.7	6.47	13.90	0.474	0.79
		8/17/2016	41.80	374.0	5.91	14.85	0.492	0.28

Table 4A
Summary of Historical Groundwater Geochemical Data: Overburden (2006-2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Temperature (C°)	Conductivity (mmhos/cm)	DO (mg/L)
Well ID	Sample Depth	Sample Date						

Notes:
ORP (mV) = Oxidation Reduction Potential measured in millivolts

pH = Measured in Standard Units

Spec Cond (mmhos/cm) = Specific Conductivity measure in millimhos per centimeter

DO (mg/L) = Dissolved Oxygen measured in milligrams per Liter

NR = No Parameters were recorded.

NTU = Nephelometric Turbidity Units

NS = Not Sampled

SU = Standard Units

Geochemical parameters reported at time of sampling.

Table 4B
Summary of Historical Groundwater Geochemical Data: Bedrock (2006 - 2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temperature (C°)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
RW-1	11-31'	10/6/2006	36.00	221.4	5.68	72	17.24	7.08
		4/17/2007	0.60	242.4	5.72	36	8.83	6.80
		5/6/2008	7.20	149.4	5.27	0.037	11.59	7.47
		9/18/2008	7.70	352.0	5.62	0.085	12.76	6.79
		7/17/2009	0.39	257.1	5.71	0.045	12.73	6.16
		10/20/2009	0.00	120.3	5.73	0.056	11.61	2.52
RW-1	59-79'	4/18/2007	1.10	216.1	5.98	42	10.62	7.13
		5/6/2008	6.90	22.0	6.56	0.131	12.39	5.75
		9/19/2008	1.70	112.4	7.04	0.247	10.35	2.91
		7/17/2009	0.34	-19.4	7.30	0.161	14.01	1.48
		10/20/2009	0.00	-104.2	7.54	0.153	11.98	2.03
		6/30/2010	0.09	-101.4	7.50	0.150	12.97	2.04
RW-1	64-74'	5/26/2011	NR	NR	NR	NR	NR	NR
		4/17/2012	0.00	-91.0	8.70	0.230	21.64	13.74
		8/18/2015	NR	NR	NR	NR	NR	NR
		8/17/2016	NR	NR	NR	NR	NR	NR
RW-1	98-118'	10/10/2006	3.40	53.8	7.66	218	13.52	7.34
		4/18/2007	2.20	146.7	7.93	200	10.67	2.03
		5/7/2008	1.30	-31.3	7.62	0.201	11.01	2.93
		9/19/2008	1.30	272.9	7.81	0.260	10.96	3.72
		7/17/2009	0.30	-61.7	7.37	0.171	13.75	0.33
		10/20/2009	0.70	-95.6	7.41	0.158	12.21	0.63
RW-1	126-146'	4/18/2007	5.00	13.0	7.93	199	10.97	1.73
		5/7/2008	0.20	-96.9	7.39	0.203	12.40	2.09
		9/22/2008	1.70	-12.4	7.68	0.272	10.66	1.88
		7/17/2009	1.47	-60.1	6.84	0.195	13.51	0.28
		10/20/2009	1.50	-98.9	6.27	0.261	12.14	0.33
		6/30/2010	1.20	-99.6	6.24	0.268	12.12	0.31
RW-1	131-141'	5/26/2011	0.00	0.1	6.70	0.428	15.07	7.60
		4/17/2012	0.00	-22.0	6.75	0.613	15.84	18.03
		8/18/2015	NR	NR	NR	NR	NR	NR
		8/17/2016	NR	NR	NR	NR	NR	NR
RW-2	20-50'	10/4/2006	9.60	153.9	6.13	0.869	16.89	36.80
		4/10/2007	2.30	119.2	6.30	1.000	14.45	0.62
		5/1/2008	9.70	117.7	6.15	1.155	14.66	2.61
		9/16/2008	1.30	105.0	6.04	0.670	NR	NR
		7/10/2009	9.21	88.2	5.86	0.975	15.38	1.09
		10/26/2009	9.80	57.3	6.42	0.611	16.05	3.28
RW-2	103-133'	10/4/2006	12.30	12.3	6.59	0.941	16.79	34.10
		4/10/2007	41.70	105.8	6.42	2.000	12.48	1.01
		5/1/2008	7.60	149.1	6.30	1.209	14.37	0.72
		9/17/2008	2.50	634.8	2.70	1.004	14.31	0.31
		7/13/2009	5.29	50.5	6.19	1.062	17.14	0.59
		10/27/2009	6.00	34.3	6.61	0.566	14.19	2.10
RW-2	161-191'	4/16/2007	45.00	95.6	6.73	1340	11.71	2.42
		10/5/2006	25.00	1.2	6.65	361	15.44	44.70
		9/17/2008	NR	NR	NR	NR	NR	NR
		7/13/2009	3.02	47.8	6.34	1.054	17.14	0.63
		10/27/2009	4.80	-2.2	6.64	0.564	14.65	2.58
RW-2	279-289'	4/17/2007	29.00	115.7	6.84	1351	11.66	3.91
		9/11/2008	NR	NR	NR	NR	NR	NR
		7/13/2009	3.44	52.1	6.39	1.055	16.73	0.78
		10/27/2009	3.77	-16.8	6.64	0.596	14.24	2.10
		6/29/2010	3.89	-17.0	6.66	0.594	14.56	2.08
		5/24/2011	0.00	18.0	4.15	2.550	23.11	2.69
		5/8/2012	0.00	-89.0	11.45	14.690	12.18	15.32
		11/19/2013	7.10	-15.0	11.00	1.690	11.06	6.61
		9/26/2014	11.70	-163.0	11.64	1.050	17.1	12.10
		8/21/2015	0.00	-233.0	10.73	1.270	23.23	2.57
		8/22/2016	0.80	-79.0	11.37	2.160	19.62	9.25

Table 4B
Summary of Historical Groundwater Geochemical Data: Bedrock (2006 - 2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temperature (C°)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
RW-2	442-479'	4/17/2007	9.00	76.4	6.73	1942	37.02	0.13
		5/5/2008	24.00	-61.6	6.61	2.639	22.10	2.14
		7/14/2009	0.32	98.8	5.64	2.494	11.32	0.71
		10/28/2009	5.03	-55.9	6.93	2.272	13.85	1.06
		6/29/2010	NR	NR	NR	NR	NR	NR
		8/25/2015	0.00	-33.0	11.28	3.110	19.43	9.89
RW-2	452-462'	6/3/2011	NR	NR	NR	NR	NR	NR
		5/16/2012	0.00	-23.0	11.37	2.050	23.21	13.71
		11/19/2013	1.10	-92.0	11.34	2.970	11.58	4.10
		9/26/2014	2.20	107.0	11.37	2.050	22.81	11.06
		8/22/2016	0.00	-83.0	11.29	1.340	19.75	9.77
RW-3	62-98'	9/29/2006	0.80	29.0	7.35	0.457	12.74	38.30
		4/5/2007	200.00	-3.5	7.30	397	10.58	0.31
		4/30/2008	32.00	-112.2	7.23	0.404	11.77	0.49
		9/8/2008	4.80	9.4	7.26	0.358	13.55	0.60
		7/6/2009	16.50	38.7	6.82	0.282	13.59	0.50
		10/19/2009	5.80	-34.8	7.27	0.243	11.60	0.37
		6/28/2010	14.60	28.7	6.78	0.249	12.89	0.48
RW-3	77-87'	5/25/2011	0.00	148.0	5.51	0.222	21.88	1.83
		4/27/2012	0.00	-64.0	7.18	0.346	12.31	1.51
		11/11/2013	0.00	-27.0	10.28	0.302	11.52	17.00
		9/15/2014	0.00	65.0	10.53	0.393	18.47	13.62
		8/6/2015	0.00	-26.0	5.89	0.384	16.79	2.40
		5/27/2016	1.80	-25.4	10.74	0.291	14.2	1.23
		8/24/2016	13.30	-80.0	7.17	0.445	15.4	9.43
RW-3D	140-165'	6/9/2010	29.20	-107.9	7.32	0.335	13.01	2.38
		5/24/2011	5.00	-152.0	7.36	0.471	14.86	1.13
		11/12/2013	0.00	-56.0	10.69	1.860	7.28	24.40
RW-3D	170-181'	6/9/2010	50.80	-122.6	7.43	0.332	12.56	0.85
		5/24/2011	5.00	-165.0	7.29	0.476	15.25	1.00
RW-3DD	175-180'	4/30/2012	0.00	-297.0	12.02	1.450	13.16	0.75
		11/12/2013	0.00	-18.0	8.27	0.457	8.30	25.24
		9/12/2014	0.00	127.0	7.55	0.339	14.66	16.63
		8/10/2015	11.20	-150.0	10.58	0.283	19.40	13.45
		5/31/2016	4.50	-190.2	8.91	0.184	15.00	1.41
		8/23/2016	3.00	-112.0	9.92	0.274	21.66	8.65
RW-3DS	155-160'	4/30/2012	0.00	-84.0	12.01	2.340	16.89	13.21
		11/12/2013	0.00	-56.0	10.69	1.860	7.28	24.40
		9/11/2014	0.00	69.0	10.29	1.330	17.00	14.32
		8/25/2015	8.00	-84.0	10.40	1.640	19.65	1.61
		5/27/2016	2.30	-237.0	10.05	0.293	17.80	2.90
		8/25/2016	20.10	-124.0	11.02	1.340	20.25	5.71
RW-4A	62-77'	6/25/2010	0.28	83.2	6.89	0.102	11.27	6.53
RW-4A	62-72'	5/25/2011	0.00	169.0	5.98	0.175	17.95	NR
		4/25/2012	0.00	20.0	9.69	0.157	13.69	15.05
		11/18/2013	2.40	147.0	6.72	0.105	9.30	7.35
		9/10/2014	0.00	118.0	7.78	0.119	19.35	10.70
		8/10/2015	1.35	51.0	7.40	0.094	18.52	14.75
		8/25/2016	6.80	-40.0	6.97	0.113	14.57	10.81
RW-4A	113-123'	6/25/2010	0.67	175.3	9.12	0.187	11.23	2.11
		5/25/2011	0.00	177.0	6.28	0.230	13.52	NR
		4/25/2012	0.00	68.0	8.07	0.160	12.20	14.82
		11/8/2013	1.50	145.0	6.86	0.146	7.22	12.78
		9/10/2014	0.00	177.0	7.36	0.134	18.03	10.96
		8/24/2015	0.00	194.0	6.75	0.126	15.04	11.11
		8/24/2016	4.90	154.0	7.65	0.140	15.92	11.11
RW-4	57-77'	10/2/2006	825.00	177.0	6.60	0.232	12.64	36.40
		4/6/2007	NR	44.8	7.01	112	5.29	1.61
		4/28/2008	10.00	122.0	6.65	0.114	12.87	3.47
		9/15/2008	16.00	-1.4	6.76	0.123	14.78	4.23
		6/30/2009	26.20	394.7	6.65	0.087	12.91	1.87
		10/21/2009	24.00	41.7	6.52	0.088	12.05	4.84
RW-4	108-128'	10/2/2006	3.41	217.2	6.82	0.289	12.37	57.10
		4/9/2007	NA	133.1	7.02	139	10.62	4.50
		4/29/2008	6.80	189.7	7.01	0.144	10.85	6.31
		9/16/2008	NR	121.6	6.50	0.145	11.31	5.85
		6/30/2009	20.50	145.8	6.60	0.096	12.96	3.46
		10/22/2009	16.00	68.9	6.68	0.099	11.74	4.89

Table 4B
Summary of Historical Groundwater Geochemical Data: Bedrock (2006 - 2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temperature (C°)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
RW-4	328-348'	10/3/2006	19.00	206.6	6.74	0.263	11.99	84
		4/9/2007	NR	142.8	6.75	119	10.96	5.09
		4/29/2008	NR	135.7	6.71	0.123	10.9	7.90
		9/9/2008	NR	160.6	6.91	0.137	14.19	7.08
		7/2/2009	22.90	267.8	6.61	0.097	12.66	6.13
		10/23/2009	12.00	90.9	6.87	0.096	10.32	5.30
RW-4	333-343'	6/7/2011	0.00	39.0	11.34	1.310	18.87	3.25
		4/25/2012	0.00	-32.0	12.22	1.200	12.89	15.19
		11/11/2013	10.10	101.0	12.08	0.300	10.72	12.23
		9/9/2014	36.50	30.0	12.22	0.767	16.13	13.20
		8/24/2015	0.00	-15.0	11.40	0.532	16.1	10.90
		8/24/2016	8.30	-5.0	11.36	0.639	20.28	14.25
RW-4	388-408'	10/3/2006	18.50	270.9	6.79	0.265	12.72	87.30
		4/9/2007	6.30	142.4	6.77	119	10.20	5.31
		4/29/2008	14.00	226.6	6.52	0.125	11.47	28.44
		9/10/2008	7.90	172.9	5.88	0.122	11.63	6.93
		7/2/2009	30.20	338.9	6.35	0.091	13.14	7.19
		10/23/2009	14.00	16.4	6.83	0.092	10.81	5.55
		6/25/2010	0.84	143.4	9.16	0.160	11.27	2.88
RW-4	393-403'	5/25/2011	NR	NR	NR	NR	NR	NR
		4/26/2012	0.00	207.0	6.89	0.244	10.64	14.96
		11/11/2013	0.00	50.0	11.07	0.160	10.60	17.08
		9/10/2014	0.00	200.0	8.11	0.245	15.88	12.94
		8/10/2015	26.80	124.0	8.25	0.356	18.20	14.48
		8/24/2016	7.90	134.0	8.24	0.179	16.73	10.16
RW-5	40-51'	9/26/2006	77.90	-99.0	7.15	0.261	10.20	41.50
		4/13/2007	59.30	-108.7	7.25	500.000	5.57	1.94
		7/7/2009	NR	-71.4	6.76	NR	NR	0.20
RW-5	64-75'	9/28/2006	73.90	238.9	6.77	0.464	12.41	0.34
		4/12/2007	41.50	-56.6	7.88	254	7.55	7.26
RW-5	100-120'	10/4/2006	22.90	292.3	7.22	0.774	11.25	65.60
		9/28/2006	-5.70	376.6	6.51	0.147	19.73	66.00
		4/12/2007	20.60	-88.9	7.10	518	11.04	0.21
		10/15/2007	NR	-92.3	7.08	NR	NR	4.66
		5/2/2008	6.80	-86.6	6.67	0.741	9.20	0.39
		7/7/2009	1.30	-71.4	6.76	0.390	11.00	0.20
		9/17/2008	3.28	-82.1	6.45	0.615	12.96	1.47
		10/27/2009	8.80	-96.7	6.77	0.414	11.66	1.09
		6/1/2010	1.96	-97.3	7.60	0.375	12.06	0.59
RW-5	99-119'	5/20/2011	0.00	-153.0	7.32	0.815	9.05	0.67
		4/26/2012	0.00	-172.0	8.01	0.444	9.39	2.91
		11/14/2013	14.70	-74.0	10.14	0.429	10.66	7.97
		9/4/2014	41.00	-139.0	10.92	0.651	16.62	8.16
		8/5/2015	46.20	-283.0	10.62	0.472	15.75	5.10
		5/25/2016	12.80	-24.4	11.32	0.478	12.1	0.89
		8/18/2016	33.80	-89.0	10.89	0.640	13.82	0.76
RW-5A	58-78'	10/15/2007	NR	178.9	7.79	NR	NR	3.87
		4/29/2008	0.20	-23.3	10.94	0.778	10.25	0.22
		9/12/2008	8.90	73.5	5.37	0.457	NA	0.96
		7/7/2009	12.40	-219.2	8.24	0.775	11.09	0.06
		10/28/2009	0.00	-167.2	8.89	0.564	11.41	0.24
		6/1/2010	3.05	48.5	8.45	0.995	12.29	0.23
RW-5A	54-74'	5/18/2011	52.40	-139.0	7.81	0.406	11.05	1.06
		4/25/2012	30.20	106.0	5.10	0.528	11.24	0.63
		11/18/2013	48.90	14.0	6.05	0.890	11.01	2.09
		9/10/2014	21.70	-19.0	6.39	0.789	15.88	0.99
		8/24/2015	36.80	-24.0	6.12	0.589	11.89	0.00
		5/25/2016	6.82	-15.8	7.00	0.457	14.1	1.55
		8/18/2016	17.60	18.0	6.01	0.440	17.54	1.00
RW-6	10-20'	5/2/2008	4.00	-98.9	6.62	0.755	9.11	0.22
RW-6	53-64'	9/27/2006	7.60	-70.5	6.09	0.381	16.38	39.00
		4/2/2007	6.40	-64.8	6.41	615	12.96	1.21
RW-6	70-81'	9/27/2006	4.00	-48.8	6.24	0.665	13.28	1.80
		4/3/2007	0.90	-60.5	6.41	652	11.47	0.32

Table 4B
Summary of Historical Groundwater Geochemical Data: Bedrock (2006 - 2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temperature (C°)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
RW-6	100-120'	10/9/2006	20.00	-36.0	6.55	666	11.32	6.56
		4/6/2007	NR	-61.2	6.46	616	9.19	0.44
		10/10/2007	NR	-27.6	6.17	NR	NR	0.76
		9/15/2008	3.00	-57.5	6.13	0.585	11.91	8.95
		7/9/2009	2.71	-6.9	6.40	0.491	10.71	0.37
		10/28/2009	1.56	-112.3	6.70	0.422	10.68	0.38
		6/2/2010	6.91	-48.0	6.91	0.400	12.26	0.43
RW-6	99-119'	5/18/2011	0.00	-82.0	6.63	0.554	10.30	2.37
		4/27/2012	20.70	-10.0	6.98	0.438	10.70	0.80
		11/18/2013	0.30	-72.0	6.44	0.564	11.73	8.30
		4/22/2015	5.30	-82.0	6.56	0.531	14.64	0.00
		6/2/2015	9.70	-65.0	6.38	0.486	9.17	0.00
		8/6/2015	17.90	-92.0	5.61	0.542	12.12	0.00
		5/26/2016	3.25	-124.7	6.55	0.443	12.50	0.52
		8/18/2016	0.00	-46.0	6.36	0.639	11.74	0.00
RW-6A	54-74'	10/16/2007	NR	-27.9	6.36	NR	NR	3.24
		5/2/2008	3.11	-30.4	6.31	0.559	9.80	0.23
		9/15/2008	2.52	37.9	5.96	0.411	12.33	0.12
		7/9/2009	7.64	-14.1	6.62	0.446	10.69	0.44
		10/28/2009	1.00	-109.6	6.63	0.387	10.29	0.19
		6/2/2010	2.66	-39.9	6.21	0.485	11.23	0.21
RW-6A	58-78'	5/18/2011	0.00	27.0	5.70	0.520	9.71	1.60
		4/27/2012	0.00	-51.0	6.56	0.517	11.05	1.87
		11/8/2013	0.00	-44.0	6.24	0.634	10.88	5.21
		9/5/2014	43.20	-53.0	6.56	0.582	12.45	3.39
		4/21/2015	4.60	-33.0	6.23	0.677	10.55	0.00
		6/1/2015	0.00	-48.0	6.24	0.583	10.68	0.00
		8/4/2015	34.30	-43.0	5.69	0.619	17.01	0.35
		5/26/2016	2.24	-127.5	6.50	0.480	14.9	1.11
		8/18/2016	0.00	-28.0	6.36	0.696	12.16	0.63
RW-7	34-45'	9/26/2006	24.60	189.8	6.46	0.135	13.36	6.38
		4/3/2007	55.00	334.0	4.43	115	12.21	4.45
RW-7	49-60'	9/26/2006	23.10	224.5	6.33	0.126	14.12	7.35
		4/4/2007	7.30	73.0	6.75	138	8.34	4.55
RW-7	80-100'	9/28/2006	1.10	217.6	6.62	0.136	13.43	74.00
		4/3/2007	5.70	150.0	6.66	118	11.52	5.69
RW-7	100-120'	9/28/2006	NR	376.6	6.51	NR	NR	66.00
		4/4/2007	1.90	218.6	6.78	132	8.66	5.12
		10/15/2007	NR	174.5	6.90	NR	NR	8.45
		5/5/2008	7.14	155.3	6.71	0.116	10.17	5.87
		9/12/2008	29.30	167.9	6.22	0.115	12.25	5.83
		7/7/2009	4.00	293.1	6.37	0.096	11.99	5.97
		10/27/2009	10.00	188.9	6.69	0.850	11.96	7.08
		6/1/2010	13.70	144.7	6.20	0.089	12.37	6.15
RW-7	99-119'	5/18/2011	0.00	92.0	6.67	0.121	11.99	4.96
		4/24/2012	0.00	182.0	6.54	0.107	13.39	3.26
		11/7/2013	0.00	193.0	7.59	0.133	11.07	7.03
		9/4/2014	0.00	154.0	5.82	0.312	13.11	7.03
		4/20/2015	12.00	197.0	6.22	0.102	10.91	0.00
		8/6/2015	49.80	-15.0	6.70	0.110	13.19	9.63
		8/18/2016	37.90	216.0	6.31	0.113	14.96	4.75
RW-8A	47-57'	5/2/2012	NR	NR	NR	NR	NR	NR
		8/18/2015	NR	NR	NR	NR	NR	NR
		8/25/2016	NR	NR	NR	NR	NR	NR
RW-8	42-62'	7/7/2009	3.11	108.4	5.53	0.166	14.92	3.69
		11/4/2009	0.00	120.5	5.81	0.145	12.98	3.70
RW-8	158-178'	7/7/2009	1.47	-60.1	6.87	0.469	18.29	0.82
		11/4/2009	0.00	-89.8	7.37	0.404	12.61	0.89
		6/23-628/2010	NR	NR	NR	NR	NR	NR
RW-8	163-173'	5/31-6/1/2011	0.00	12.0	6.79	0.320	21.30	1.73
		5/2-5/3/2012	0.00	4.0	9.93	0.621	13.22	15.98
		11/15/2013	0.00	53.0	8.03	0.664	13.51	12.82
		9/22/2014	5.50	-66.0	7.97	0.635	19.34	4.04
		8/18/2015	0.00	-16.0	7.63	0.493	19.89	9.75
		8/25/2016	0.10	-97.0	7.34	0.438	20.40	7.65

Table 4B
Summary of Historical Groundwater Geochemical Data: Bedrock (2006 - 2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temperature (C°)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
RW-8	199-219'	7/7/2009	2.11	-103.8	7.13	0.784	20.48	1.17
		11/4/2009	1.84	-102.5	7.20	0.582	12.91	1.27
		6/23-6/28/2010	NR	NR	NR	NR	NR	NR
RW-8	204-214'	5/31-6/1/2011	NR	NR	NR	NR	NR	NR
		5/2/2012	NR	NR	NR	NR	NR	NR
		11/14-11/15/13	4.70	98.0	8.52	1.240	11.38	12.58
		9/22-9/23/14	18.10	32.0	8.39	0.928	20.44	5.17
		8/19/15 - 8/20/15	NR	NR	NR	NR	NR	NR
		8/25/2016	1.10	-65.0	8.88	0.849	22.2	9.36
RW-9A	25-35'	5/31/2011	NR	NR	NR	NR	NR	NR
		4/20/2012	NR	NR	NR	NR	NR	NR
		8/20/2015	NR	NR	NR	NR	NR	NR
		8/29/2016	NR	NR	NR	NR	NR	NR
RW-9A	85-95'	6/23/2010	NR	NR	NR	NR	NR	NR
		6/1/2011	NR	NR	NR	NR	NR	NR
		4/20/2012	NR	NR	NR	NR	NR	NR
		9/23-9/24/14	0.00	-34.0	6.84	0.179	24.22	10.02
		8/20/15 - 8/21/15	NR	NR	NR	NR	NR	NR
		8/29/2016 - 8/30/16	4.80	-91.0	8.14	1.110	17.2	3.77
RW-9	20-40'	7/15/2009	0.23	385.1	6.48	0.153	14.72	8.13
		11/2/2009	0.10	90.4	6.27	0.122	11.82	6.03
RW-9	80-100'	7/15/2009	0.00	107.4	6.64	0.204	18.13	7.73
		11/2/2009	0.28	-62.4	7.22	0.288	13.75	2.51
RW-9	134-154'	7/16/2009	5.90	-97.1	7.63	0.255	13.97	0.49
		11/2/2009	0.32	-68.5	7.32	0.280	12.65	1.98
		5/26/2011	NR	NR	NR	NR	NR	NR
		4/19-4/20/2012	NR	NR	NR	NR	NR	NR
RW-9	139'-149'	8/19/15 - 8/20/15	NR	NR	NR	NR	NR	NR
		8/29/16 - 8/30/16	5.70	-80.0	8.29	1.090	16.36	4.05
RW-9	201-221'	7/16/2009	4.11	-83.2	7.27	0.329	20.21	0.57
		11/3/2009	1.28	-93.6	7.41	0.281	11.70	2.79
		6/23-6/28/2010	NR	NR	NR	NR	NR	NR
		5/26/2011	NR	NR	NR	NR	NR	NR
		4/20/2012	NR	NR	NR	NR	NR	NR
		11/19-11/20/2013	0.00	-161.0	8.76	0.970	9.90	6.20
RW-9	206' 216'	8/20/15 - 8/21/15	NR	NR	NR	NR	NR	NR
		8/29/16 - 8/30/16	1.00	-67.0	9.07	1.180	20.67	2.81
RW-10	22-42'	7/8/2009	1.42	249.3	5.33	0.164	12.43	7.53
		10/29/2009	0.78	106.0	5.87	0.144	10.61	6.15
RW-10	46-66'	7/9/2009	3.11	169.5	6.06	0.176	10.96	4.90
		10/29/2009	1.46	89.3	5.78	0.144	36.98	6.04
RW-10	70-90'	7/9/2009	6.10	154.9	5.99	0.175	12.02	5.23
		10/29/2009	0.30	78.0	6.00	0.242	12.50	3.25
		11/14/2013	28.60	251.0	7.80	0.910	9.02	5.86
RW-10	115-135'	7/9/2009	5.72	209.6	6.04	0.175	13.25	1.67
		10/29/2009	0.58	47.1	6.15	0.254	12.27	1.82
RW-10	120-130'	6/23-6/25/2010	NR	NR	NR	NR	NR	NR
		5/31-6/1/2011	NR	NR	NR	NR	NR	NR
		4/18-4/19/2012	0.00	-5.0	11.15	0.828	24.29	13.38
		9/17/2014	4.10	102.0	11.77	0.878	18.30	13.12
		8/18/15 - 8/19/15	NR	NR	NR	NR	NR	NR
		8/29/2016	2.90	-145.0	11.87	0.712	17.87	2.54
RW-10	180-200'	7/9/2009	5.13	-8.0	7.03	0.335	12.73	0.96
		10/30/2009	1.93	-74.9	6.77	0.322	10.51	0.33
RW-10	185-195'	6/23-6/28/2010	1.64	-73.2	6.75	0.320	11.47	0.30
		5/31/2011	0.00	-64.0	11.62	1.150	23.69	1.40
		4/17-5/4/2012	0.0/0.0	2.8	10.88/11.03	0.993/0.522	13.00/15.19	8.20/15.45
		11/13/2013	8.00	-83.0	10.43	0.529	8.25	13.09
		9/17/2014	0.70	84.0	11.47	0.589	17.01	12.69
		8/18/2015	2.50	-41.0	11.13	0.517	16.99	1.61
		8/26/2016	0.00	-37.0	9.84	0.449	20.67	9.46
RW-10A	51-61'	6/2/2011	0.00	36.0	6.72	0.467	18.46	0.76
		9/18/2014	1.80	64.0	7.72	0.531	18.74	10.56
		8/19/15 - 8/20/15	NR	NR	NR	NR	NR	NR
		8/29/2016	3.10	-122.0	7.94	0.561	20.39	9.70

Table 4B
Summary of Historical Groundwater Geochemical Data: Bedrock (2006 - 2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temperature (C°)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
RW-10A	75-85'	6/23-6/28/2010	36.00	72.3	7.40	0.271	11.14	1.07
		6/2/2011	0.00	162.0	6.62	0.324	17.31	1.70
		4/18-5/4/2012	0.0/0.0	195/19	6.16/9.54	0.440/0.419	12.71/14.05	8.90/16.07
		11/14/2013	0.92	28.6	7.80	0.910	9.02	5.86
		9/18/2014	6.10	278.0	7.68	0.369	13.62	13.04
		8/18/2015	0.00	167.0	6.91	0.352	15.91	3.88
		8/26/2016	3.50	-73.0	7.03	0.371	20.2	8.26
RW-11	100-125'	6/7/2010	11.90	143.8	5.55	0.042	16.53	8.76
		5/26/2011	0.00	211.0	5.73	0.053	11.04	8.99
RW-11	142-167'	6/7/2010	6.30	165.8	5.56	0.040	13.97	9.63
		5/26/2011	0.00	210.0	5.61	0.054	10.41	7.70
RW-11	221-246'	6/8/2010	7.97	99.0	6.42	0.124	13.71	7.70
		5/25/2011	0.00	232.0	4.99	0.032	12.81	7.47
RW-11	252-272'	6/8/2010	4.21	94.6	6.43	0.127	14.12	2.74
		5/25/2011	0.00	225.0	5.44	0.054	15.46	6.24
RW-11D	262-267'	5/1/2012	0.00	9.0	11.11	0.911	12.00	5.59
		5/1/2012	0.00	-91.0	12.51	4.860	11.63	6.23
		11/14/2013	15.10	-97.0	11.90	3.550	9.28	7.34
		8/25/15 - 8/26/15	NR	Nr	NR	NR	NR	NR
		5/27/2016	16.60	-342.0	12.46	0.367	22.60	1.26
		8/23/2016	24.50	-70.0	11.92	2.300	15.04	7.68
RW-11S	236-241'	5/1/2012	0.00	-4.0	10.45	0.187	11.96	5.70
		11/13/2013	0.00	20.0	6.67	0.149	9.76	3.24
		9/12/2014	0.00	98.0	7.85	0.107	20.85	9.16
		8/12/2015	0.00	101.0	7.18	0.105	17.75	10.42
		5/27/2016	0.80	-160.7	8.34	0.106	14.80	8.31
		8/23/2016	7.70	-37.0	6.99	0.164	25.99	7.19
RW-12	50-76'	5/10/2012	38.90	-290.0	7.27	0.589	11.40	0.88
	96-116'	5/10/2012	47.30	-164.0	8.06	0.604	12.22	0.67
	125-148'	5/11/2012	35.30	45.0	5.59	0.609	11.86	1.72
RW-12	55-65	9/19/2014	0.00	41.0	13.11	1.770	23.71	3.50
		8/17/2015	0.00	-100.0	11.05	1.480	26.10	1.24
		8/22/2016	0.00	-83.0	10.95	1.150	21.90	8.85
RW-12	130-140	9/19/2014	0.00	58.0	2.12	1.540	14.66	6.55
		8/12/2015	2.89	-78.0	11.50	1.140	20.30	12.51
		8/25/2016	20.50	-210.0	11.14	0.752	18.08	0.54
RW-13	71-91'	11/12/2013	33.00	-54.0	8.23	0.274	6.83	1.20
		8/24/2015	147.20	97.5	7.87	0.625	16.10	0.68
		8/25/2016	6.10	131.0	6.87	0.434	13.57	0.71
	100-120'	11/13/2013	49.70	-30.0	7.91	0/266	10.24	7.84
		8/12/15 - 8/13/15	NR	NR	NR	NR	NR	NR
		8/25/16 - 8/26/16	25.90	-79.0	12.09	2.520	19.60	3.03
	130-150'	11/14/2013	49.20	-136.0	8.20	0.247	10.46	1.45
	100-120'	9/16/2014	0.00	120.0	12.59	3.980	20.56	1.79
RW-13	150-170'	11/14/2013	27.00	-118.0	8.75	0.241	10.89	1.50
		9/16/2014	0.00	48.0	7.10	0.349	21.03	2.35
		8/12/2015	2.10	-65.0	7.73	0.339	21.04	9.00
		8/25/2016	38.00	8.0	8.00	0.355	19.75	9.46
RW-14S	135-153'	5/31/2016	8.50	46.2	8.87	0.450	19.50	1.59
		8/29/2016	1.40	-57.0	8.00	0.550	17.28	11.28
RW-14D	175-185'	5/31/2016	16.20	-35.0	7.14	0.656	19.90	1.01
		8/29/2016	8.40	-140.0	7.60	0.849	20.71	8.40
RW-15S	110-120'	5/27/2016	2.20	-115.5	12.07	1.052	23.30	1.75
		8/24/2016	11.00	-41.0	11.06	0.907	20.11	8.61
RW-15D	127-137'	5/27/2016	3.10	-133.1	12.50	2.020	19.20	2.52
		8/24/2016	2.70	-95.0	11.85	2.250	19.00	2.26
RW - 16	52 - 62'	8/16/2016	18.30	67.0	5.95	0.588	12.80	0.00

Notes:
NTU = Nephelometric Turbidity Units
ORP (mV) = Oxidation Reduction Potential measured in millivolts
pH = Measured in Standard Units
Spec Cond (mmhos/cm) = Specific Conductivity measure in millimhos per centimeter
Temp ^{o}C = Temperature measured in degrees Centigrade
DO (mg/L) = Dissolved Oxygen measured in milligrams per Liter
NR = Parameters not recorded
SU = Standard Units
Geochemical parameters reported at time of sampling.

Table 4C
Summary of Historical Mine Water Geochemical Data (2006 - 2016)

Ringwood Mines/Landfill Superfund Site

Geochemical Parameters			Turbidity (NTU)	ORP (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temperature (C°)	DO (mg/L)
Well ID	Sample Depth	Sample Date						
CM AIRSHAFT	50'	5/7/2012	0.00	-82.0	7.06	0.061	14.41	2.86
		9/12/2014	0.00	-103.0	6.68	1.170	12.57	0.48
		8/14/2015	16.10	-52.6	6.46	0.104	16.70	2.23
		8/22/2016	0.00	-103.0	6.75	0.682	16.69	0.03
CM AIRSHAFT	100'	5/7/2012	0.00	-95.0	7.12	1.110	14.82	3.01
		9/18/2014	42.40	-107.0	6.81	0.933	12.55	0.58
		8/17/2015	28.50	-89.0	6.69	0.914	14.49	3.20
		8/22/2016	15.10	-235.0	7.72	0.732	16.95	0.74
CM AIRSHAFT	160'	5/9/2012	0.00	-95.0	7.11	1.000	18.85	1.85
		9/18/2014	43.80	-107.0	6.86	0.884	12.99	0.68
		8/17/2015	37.00	-77.0	6.61	0.940	12.42	2.06
		8/22/2016	29.30	-237.0	7.61	0.785	17.91	0.05
CM AIRSHAFT	275'	5/9/2012	0.00	-116.0	7.23	0.882	22.32	4.01
		9/18/2014	241.00	-103.0	6.77	0.830	13.03	0.58
		8/18/2015	80.10	-83.0	6.68	0.920	14.39	2.50
		8/22/2016	44.60	-117.0	6.74	0.838	17.19	0.04
PM AIRSHAFT	50'	4/23/2012	1.50	197.0	6.53	0.061	11.10	6.03
		9/16/2014	2.30	360.0	5.43	0.057	12.50	7.88
		8/12/2015	23.40	-197.8	6.45	0.659	14.80	2.73
		6/1/2016	4.09	-16.8	7.79	0.043	12.20	6.00
		8/23/2016	0.00	58.0	6.38	0.064	15.02	3.85
PM AIRSHAFT	180'	8/22/2007	NR	30.7	5.89	NR	NR	3.19
		10/15/2007	NR	-51.2	6.42	NR	NR	4.49
		5/7/2008	1.30	98.8	5.76	0.051	13.27	6.78
		9/18/2008	7.00	-77.3	6.11	0.014	14.56	1.50
		7/10/2009	3.65	30.8	5.99	0.350	14.44	0.37
		10/29/2009	6.50	17.8	5.97	0.048	12.73	0.04
		6/4/2010	0.61	92.1	6.15	0.035	12.78	5.50
		5/24/2011	1.40	-17.0	6.18	0.204	9.06	4.73
		4/23/2012	0.00	207.0	6.47	0.039	10.84	6.25
		9/16/2014	2.90	-345.0	5.99	0.551	12.79	0.87
		8/17/2015	35.00	-95.0	6.27	0.424	17.75	8.03
		6/1/2016	7.00	-166.4	6.38	0.411	12.9	0.30
		8/23/2016	47.10	-125.0	6.26	0.518	13.49	0.00
PM AIRSHAFT	230'	8/22/2007	NR	-35.5	6.10	NR	NR	1.86
		10/15/2007	NR	-58.6	6.36	NR	NR	4.03
		5/7/2008	0.00	-43.6	5.96	1.074	12.94	1.22
		9/18/2008	24.00	-80.6	6.66	0.006	17.35	3.83
		7/10/2009	4.57	30.1	5.62	0.355	14.95	0.45
		10/29/2009	1.02	-86.8	6.08	0.833	12.76	0.35
		6/4/2010	0.27	-87.3	6.08	0.783	12.81	0.25
		5/24/2011	82.20	-69.0	6.19	0.978	9.00	0.33
		4/24/2012	0.00	180.0	6.62	0.065	11.00	9.01
		9/17/2014	0.00	-106.0	6.21	0.970	14.44	0.57
		8/18/2015	0.00	-95.0	6.29	0.941	15.52	2.00
		6/1/2016	31.90	-80.1	6.65	0.742	15.3	0.21
		8/23/2016	68.20	-113.0	6.30	1.020	11.89	0.00

Notes:
NTU = Nephelometric Turbidity Units
ORP (mV) = Oxidation Reduction Potential measured in millivolts
pH = Measured in Standard Units
Spec Cond (mmhos/cm) = Specific Conductivity measure in millimhos per centimeter
Temp ^{o}C = Temperature measured in degrees Centigrade
DO (mg/L) = Dissolved Oxygen measured in milligrams per Liter
NR = Parameters not recorded
SU = Standard Units

Geochemical parameters reported at time of sampling.

Table 4D
Summary of Field Parameters at Sampling Time - Overburden Wells - August 2016

Ringwood Mines/Landfill Superfund Site

Well ID	Sample Date	Sample Time	Sample Method	Minutes elapsed	Rate (ml/pm)	Turbidity (NTUs)	ORP (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water (feet)	Diss. Oxygen (mg/L)
OB-1	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OB-2	8/17/2016	12:50	Low Flow	40	340	0.0	396	6.02	0.128	13.67	18.72	6.03
OB-3	8/16/2016	16:10	Low Flow	40	320	14.1	248	6.35	0.145	15.38	4.85	5.57
OB-4	8/17/2016	17:35	Low Flow	35	280	0.0	-61	6.63	0.813	15.07	17.56	0.00
OB-5	8/18/2016	12:40	Low Flow	30	240	0.0	-55	6.41	0.874	14.36	3.22	0.00
OB-6	8/18/2016	10:20	Low Flow	35	240	20.8	25	6.18	0.249	14.64	8.32	0.00
OB-7	8/16/2016	15:10	Low Flow	35	220	5.7	-33	6.86	0.604	13.87	5.47	4.46
OB-10	8/16/2016	10:00	Low Flow	35	320	0.0	287	7.00	0.126	11.74	6.80	11.01
OB-11R	8/17/2016	14:30	Low Flow	40	200	33.5	-81	6.26	0.620	12.34	17.62	0.95
OB-12	8/17/2016	11:10	Low Flow	40	280	0.0	469	4.77	0.071	12.41	10.68	6.18
OB-13	8/16/2016	14:00	Low Flow	40	320	0.0	396	5.98	0.104	13.00	13.27	6.21
OB-14A	8/16/2016	14:30	Low Flow	40	240	0.0	-52	6.34	0.818	14.95	12.36	0.22
OB-14B	8/15/2016	14:35	Low Flow	45	200	3.0	22	6.44	0.794	14.52	13.84	0.00
OB-15B	8/17/2016	12:30	Low Flow	50	200	42.9	-28	7.73	0.153	19.78	4.89	2.03
OB-16	8/16/2016	11:00	Low Flow	30	240	0.0	-66	5.72	1.020	15.79	6.61	4.19
OB-17	8/16/2016	9:50	Low Flow	35	240	1.6	10	5.77	0.711	15.04	6.71	5.49
OB-18	8/16/2016	10:10	Low Flow	50	250	3.5	265	6.86	0.272	13.33	6.81	5.56
OB-19	8/17/2016	17:20	Low Flow	50	220	17.9	-8	5.38	0.172	16.87	13.00	0.88
OB-20A	8/18/2016	9:55	Low Flow	35	240	6.7	5	6.04	0.200	11.96	16.21	0.31
OB-20B	8/18/2016	12:50	Low Flow	30	220	6.3	-44	6.30	0.538	11.81	16.42	5.88
OB-21	8/18/2016	10:30	Low Flow	55	200	40.5	241	6.08	0.111	14.18	8.32	2.46
OB-22	NS	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OB-23	NS	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OB-24	8/16/2016	15:40	Low Flow	35	240	7.9	47	7.23	0.731	14.77	6.64	0.31
OB-25	8/18/2016	16:30	Low Flow	35	160	65.3	180	6.82	0.653	17.49	12.76	4.35
OB-26	---	---	NS	---	---	---	---	---	---	---	---	---
OB-27	8/17/2016	16:05	Low Flow	45	200	39.8	-78	6.12	0.357	16.39	15.81	0.15
OB-28	8/15/2016	12:05	Low Flow	75	250	42.5	74	6.5	1.020	15.13	2.10	3.96
OB-29	8/16/2016	11:40	Low Flow	45	320	5.0	316	6.99	0.124	13.17	5.71	10.18
OB-30A	NS	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
OB-30B	8/17/2016	11:45	Low Flow	40	240	23.3	238	5.98	0.356	13.55	20.54	0.11
OB-30C	8/17/2016	10:30	Low Flow	35	220	39.8	186	8.30	0.389	13.6	24.13	1.87
OB-31	8/17/2016	14:45	Low Flow	30	220	41.0	-76	6.41	301.000	13.49	16.59	6.44
OB-32	8/17/2016	13:30	Low Flow	35	240	12.6	-103	6.66	0.455	14.11	17.81	0.53
OB-33	8/17/2016	11:05	Low Flow	45	200	9.4	299	6.41	0.132	13.76	11.79	9.38
SC-1	8/19/2016	11:35	Low Flow	45	260	13.4	-15	5.87	0.464	14.92	15.08	0.00
SC-2	8/17/2016	15:00	Low Flow	45	200	41.8	374	5.91	0.492	14.85	58.58	0.28

Notes:
--- = well was destroyed
°C = degrees Celsius
mg/L = milligrams per liter
mL/pm = milliliters per minute
mmhos/cm = millimhos per centimeter
mV = millivolts
NTU = Nephelometric Turbidity Unit
ORP = oxidation-reduction potential
SU = Standard Units
NS = Not Sampled
NR = Not Recorded

Table 4E
Summary of Field Parameters at Sampling Time - Bedrock Monitoring Wells - August 2016

Ringwood Mines/Landfill Superfund Site

Well ID	Interval (ft bgs)	Sample Date	Sample Time	Sample Method	Minutes elapsed	Rate (ml/pm)	Turbidity (NTUs)	ORP (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water (feet)	Dissolved Oxygen (mg/L)
RW-1	64 to 74	NS	NS	ZIST	NS	NS	NS	NS	NS	NS	NS	NS	NS
RW-1	131 to 141	NS	NS	ZIST	NS	NS	NS	NS	NS	NS	NS	NS	NS
RW-2	279 to 289	8/22/2016	11:05	ZIST	17	100	0.8	-79	11.37	2.160	19.62	NM	9.25
RW-2	452 to 462	8/22/2016	13:00	ZIST	36	50	0.0	-83	11.29	1.340	19.75	NM	9.77
RW-3	77 to 87	8/22/2016	9:35	ZIST	15	125	13.3	-80	7.17	0.445	15.40	NM	9.43
RW-3DS	155 to 160	8/23/2016	15:00	ZIST	10	120	20.1	-124	11.02	1.340	20.25	NM	5.71
RW-3DD	175 to 180	8/23/2016	13:25	ZIST	10	90	3.0	-112	9.92	0.274	21.66	NM	8.65
RW-4A	62 to 72	8/25/2016	8:10	ZIST	15	110	6.8	-40	6.97	0.113	14.57	NM	10.81
RW-4A	113 to 123	8/24/2016	16:10	ZIST	15	110	4.9	154	7.65	0.140	15.92	NM	11.11
RW-4	333 to 343	8/24/2016	14:50	ZIST	15	110	8.3	-5	11.36	0.639	20.28	NM	14.25
RW-4	393 to 403	8/24/2016	15:35	ZIST	16	100	7.9	134	8.24	0.179	16.73	NM	10.16
RW-5	99 to 119	8/18/2016	16:50	Low-flow	45	200	33.8	-89	10.89	0.640	13.82	13.80	0.76
RW-5A	54 to 74	8/18/2016	14:45	Low-flow	50	200	17.6	18	6.01	0.440	17.54	15.48	1.00
RW-6	99 to 119	8/18/2016	11:20	Low-flow	35	200	0.0	-46	6.36	0.639	11.74	13.68	0.00
RW-6A	58 to 78	8/18/2016	14:30	Low-flow	35	280	0.0	-28	6.36	0.696	12.16	15.39	0.63
RW-7	99 to 119	8/18/2016	12:20	Low-flow	40	200	37.9	216	6.31	0.113	14.96	4.98	4.75
RW-8A	47 to 57	NS	DRY	ZIST	NS	NS	NS	NS	NS	NS	NS	NS	NS
RW-8	163 to 173	8/25/2016	16:05	ZIST	16	100	0.1	-97.0	7.34	0.438	20.40	NM	7.65
RW-8	204 to 214	8/25/2016	13:45	ZIST	22	75	1.1	-65	8.88	0.849	22.2	NM	9.36
RW-9A	25 to 35	NS	DRY	ZIST	NS	NS	NS	NS	NS	NS	NS	NS	NS
RW-9A	85 to 95	8/30/2016	7:50	ZIST	16	NA	4.8	-91	8.14	1.11	17.2	NM	3.77
RW-9	139 to 149	8/30/2016	9:25	ZIST	5	NA	5.7	-80	8.29	1.09	16.36	NM	4.05
RW-9	206 to 216	8/30/2016	9:45	ZIST	28	NA	1.0	-67	9.07	1.18	20.67	NM	2.81
RW-10A	51 to 61	8/29/2016	12:20	ZIST	40	40	3.1	-122	7.94	0.561	20.39	NM	9.7
RW-10A	75 to 85	8/26/2016	14:15	ZIST	20	80	3.5	-73	7.03	0.371	20.20	NM	8.86
RW-10	120 to 130	8/29/2016	14:30	ZIST	36	45	2.9	-145	11.87	0.712	17.87	NM	2.54
RW-10	185 to 195	8/26/2016	13:05	ZIST	16	100	0.0	-37	9.84	0.449	20.67	NM	9.46
RW-11S	236 to 241	8/23/2016	12:15	ZIST	10	150	7.7	-37	6.99	0.164	25.99	NM	7.19
RW-11D	262 to 267	8/23/2016	9:05	ZIST	30	50	24.5	-70	11.92	2.300	15.04	NM	7.68
RW-12	55 to 65	8/22/2016	16:10	ZIST	50	50	0.0	-83	10.95	1.150	21.9	NM	8.85
RW-12	130 to 140	8/25/2016	12:25	ZIST	13	100	20.5	-210	11.14	0.752	18.08	NM	0.54
RW-13	71 to 91	8/25/2016	9:45	Low-flow	40	140	6.1	131	6.82	0.434	13.57	18.26	0.21
RW-13	100 to 120	8/26/2016	7:45	ZIST	48	40	25.9	-79	12.09	2.52	19.6	NM	3.03
RW-13	150 to 170	8/25/2016	8:25	ZIST	22	150	38.0	8	8.00	0.355	19.75	NM	9.46
RW-14S	135 to 155	8/29/2016	8:45	ZIST	40	90	1.4	-57	8.00	0.55	17.28	NM	11.28
RW-14D	175 to 185	8/29/2016	9:40	ZIST	11	125	8.4	-140	7.60	0.849	20.71	NM	8.40
RW-15S	110 to 120	8/24/2016	11:50	ZIST	16	100	11.0	-41	11.06	0.907	20.11	NM	8.61
RW-15D	127 to 137	8/24/2016	13:40	ZIST	16	100	2.7	-95	11.85	2.25	19	NM	2.26
RW-16	52 to 62	8/16/2016	15:45	Low-flow	35	200	18.3	67	5.95	0.588	12.8	6.58	0.00

Notes:
* Samples were collected on multiple days.
--- = no parameters were recorded due to poor yield
°C = degrees Celsius
ft bgs = feet below ground surface
mg/L = milligrams per liter
mL/pm = milliliters per minute
mmhos/cm = millimhos per centimeter
mV = millivolts
NTU = Nephelometric Turbidity Unit
ORP = oxidation-reduction potential
SU = Standard Units
ZIST = Zone Isolation System Technology
NM = Not Measureable
NS = Not Sampled

Table 4F
Summary of Field Parameters at Sampling Time - Peters and Cannon Mine Shafts - August 2016

Ringwood Mines/Landfill Superfund Site

Well ID	Sample Depth (ft bgs)	Sample Date	Sample Time	Sample Method	Minutes elapsed	Rate (mL/pm)	Turbidity (NTUs)	ORP (mV)	pH (SU)	Conductivity (mmhos/cm)	Temperature (ºC)	Depth to Water (feet)	Dissolved Oxygen (mg/L)
PMAirShaft	50	8/23/2016	9:10	Low Flow	35	500	0.0	58	6.38	0.064	15.02	8.86	3.85
	180	8/23/2016	10:25	Low Flow	50	350	47.1	-125	6.26	0.518	13.49	8.06	0
	230	8/23/2016	13:25	Low Flow	45	500	68.2	-113	6.3	1.020	11.89	8.86	0
CMShaft	50	8/22/2016	10:30	Low Flow	30	500	0.0	-103	6.75	0.682	16.69	8.21	0.03
	100	8/22/2016	11:40	Low Flow	45	350	15.1	-235	7.72	0.732	16.95	8.21	0.74
	160	8/22/2016	13:20	Low Flow	45	450	29.3	-237	7.61	0.785	17.91	8.21	0.05
	275	8/22/2016	14:50	Low Flow	50	350	44.6	-117	6.74	0.838	17.19	8.21	0.04

Notes:
°C = degrees Celsius
ft bgs = feet below ground surface
mg/L = milligrams per liter
mL/pm = milliliters per minute
mmhos/cm = millimhos per centimeter
mV = millivolts
NTU = Nephelometric Turbidity Unit
ORP = oxidation-reduction potential
SU = standard units

Table 4G
Summary of Surface Water Field Parameters - August 2016

Ringwood Mines/Landfill Superfund Site

Surface Location	Date	Time (hrs.)	NTU	Redox	pH	Conductivity (ms/cm)	Temperature (C˚)	D.O. (mg/l)	Sample ID	Comments
SR 3-Seep-2	8/19/2016	12:10	20.7	-29	-56	0.261	19.78	5.56	SR 3-Seep-2-081916	**
SR 3 Pond	8/19/2016	10:35	18.9	-60	6.37	0.2	22.49	1.08	SR 3 Pond-081916-MS/MSD	MS/MSD
SR 3-Seep-1	8/19/2016	11:40	52.7	-65	6.6	0.263	21.22	3.71	SR 3-Seep-1-091916	**
SW-NOB-01	8/22/2016	10:00	22.6	228	6.41	0.074	23.68	542	SW-NOB-01-082216	**
SW-NOB -02	8/19/2016	10:25	13.4	215	7.48	0.112	11.45	6.88	SW-NOB -02-081916	**
SW-PAB -04	8/19/2016	10:40	3.8	51	7.6	0.191	20.82	5.4	SW-PAB -04-081916	**
SW-PMB - 02	8/22/2016	17:45	4.9	72	7.69	0.671	18.87	6.71	SW-PMB -02-082216	**
SW-PMB - 01	8/23/2016	7:30	400	-181	7.33	0.795	15.12	3.48	SW-PMB - 01-082316	**
SW-MRB-01	8/22/2016	16:00	0	57	6.03	0.064	23.4	2.2	SW-MRB-01-082216	
SW-MRB-00	8/19/2016	13:05	0	169	6.32	0.049	22.29	6.32	SW-MRB-00-081916	**
SW-MRB-03	8/19/2016	13:40	4.4	191	7.17	0.203	24.26	4.93	SW-MRB-03-081916	**
SW-MRB-02	8/19/2016	13:55	78.6	49	5.16	0.027	25.91	5.38	SW-MRB-02-081916	**
PMP Pond	8/22/2016	12:45	16.7	55	6.88	0.283	22.55	1.62	PMP Pond-082216	DUP-3
SW-PAB-03	8/22/2016	13:00	30.9	-8	6.24	0.272	21.25	2.83	SW-PAB-03-082216	**
SW-PAB-02	5/22/2016	14:45	88.2	232	6.54	0.23	24.13	2.59	SW-PAB-02-082216	**
SW-PAB-01A	8/19/2016	13:40	15.4	-4	7.25	0.194	22.05	6.74	SW-PAB-01A-081916	**
SW-PAB-00	8/19/2016	7:55	0	274	7.3	0.116	20.13	6.61	SW-PAB-00-081916	**
SW-PAB-01	8/19/2016	13:15	316	-155	6.63	0.216	18.27	3.28	SW-PAB-01-081916	**
SW-SP-01	8/19/2016	11:05	8.9	160	7.31	0.196	24.72	8.66	SW-SP-01-081916	**
SW-04	8/19/2016	12:05	4.7	164	8.01	0.684	21.4	7.27	SW-04-081916	**
SW-03	8/19/2016	12:40	3.9	131	7.31	0.534	22.02	7.02	SW-03-081916	**

TABLE 5A
SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-11R	OB-19	OB-20B	OB-27	OB-30C	OB-31	OB-32	RW-3	RW-3 DUP	RW-3DS (155-160)
1,1-Dichloroethane	ug/l	50										2.2
1,4-Dichlorobenzene	ug/l	75										
2-Butanone (MEK)	ug/l	300										
Acetone	ug/l	6000			7.8					7.6 B	9.4 B	11 B
Benzene	ug/l	1	3.2	0.23 J	0.15 J	2.3		0.14 J				0.13 J
Carbon disulfide	ug/l	700										6.5
Chlorobenzene	ug/l	50										
Chloroethane[1]	ug/l	5	24	1.5	3.9	61		4.9				
cis-1,2-Dichloroethene	ug/l	70	0.43 J									
Cyclohexane	ug/l		2.8		1	1.7		0.41 J	0.39 J			
Ethylbenzene	ug/l	700										0.31 J
Isopropylbenzene	ug/l	700	0.83 J			2.9						
Methyl tert-butyl ether	ug/l						0.21 J					
Methylcyclohexane	ug/l		0.74 J		0.66 J	1.3						
Methylene Chloride	ug/l	3										
Toluene	ug/l	600										0.67 J
Trichloroethene	ug/l	1										
Xylenes, Total	ug/l	1000										0.58 J
Tentatively Identified Compounds (TICs)												

TABLE 5A
SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-11R	OB-19	OB-20B	OB-27	OB-30C	OB-31	OB-32	RW-3	RW-3 DUP	RW-3DS (155-160)
1H-Indene, 2,3-dihydro-4-methyl-	ug/l					15 NJ						
3-Phenylbut-1-ene	ug/l											
Benzene, (3-methyl-2-butenyl)-	ug/l					7.5 NJ						
Benzene, 1,2,3,4-tetramethyl-	ug/l											
Benzene, 1,2,3,5-tetramethyl-	ug/l											
Benzene, 1,2,3-trimethyl-	ug/l											
Benzene, 1,2,4,5-tetramethyl-	ug/l											
Benzene, 1,2,4-trimethyl-	ug/l											
Benzene, 1-ethyl-2,3-dimethyl-	ug/l					6.4 NJ						
Benzene, 2-ethenyl-1,4-dimethyl-	ug/l		6.5 NJ									
Benzene, 4-ethyl-1,2-dimethyl-	ug/l											
Benzene, propyl-	ug/l											
Indane	ug/l					9.1 NJ						
Naphthalene	ug/l	300										
Sulfur dioxide	ug/l											
Unknown	ug/l											

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Generic Groundwater Quality Criteria

TABLE 5A
SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	RW-3DD (175-180)	RW-4 (333-343)	RW-4 (393-403)	RW-4A (62-72)	RW-4A (113-123)	RW-5	RW-6	RW-6A	RW-11S (236-241)	RW-11D (262-267)
1,1-Dichloroethane	ug/l	2.2						0.64 J	0.3 J		
1,4-Dichlorobenzene	ug/l										0.83 J
2-Butanone (MEK)	ug/l	3.6 J									8.2
Acetone	ug/l	13 B	10 B	7 B	7.2 B	5.8 B			9.1	10 B	46 B
Benzene	ug/l	0.26 J						1.9	8		6.4
Carbon disulfide	ug/l	2.5									12
Chlorobenzene	ug/l										4.6
Chloroethane[1]	ug/l						2.6	10	5.7		8.6
cis-1,2-Dichloroethene	ug/l										
Cyclohexane	ug/l							0.75 J	3.6		0.31 J
Ethylbenzene	ug/l										
Isopropylbenzene	ug/l								5		1.2
Methyl tert-butyl ether	ug/l										
Methylcyclohexane	ug/l							0.75 J	1		
Methylene Chloride	ug/l									0.63 J	0.28 J
Toluene	ug/l										0.28 J
Trichloroethene	ug/l										
Xylenes, Total	ug/l								9.7		
Tentatively Identified Compounds (TICs)											

TABLE 5A
SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	RW-3DD (175-180)	RW-4 (333-343)	RW-4 (393-403)	RW-4A (62-72)	RW-4A (113-123)	RW-5	RW-6	RW-6A	RW-11S (236-241)	RW-11D (262-267)
1H-Indene, 2,3-dihydro-4-methyl-	ug/l								6.5 NJ		
3-Phenylbut-1-ene	ug/l								12 NJ		
Benzene, (3-methyl-2-butenyl)-	ug/l										
Benzene, 1,2,3,4-tetramethyl-	ug/l										
Benzene, 1,2,3,5-tetramethyl-	ug/l								10 NJ		
Benzene, 1,2,3-trimethyl-	ug/l										
Benzene, 1,2,4,5-tetramethyl-	ug/l								14 NJ		
Benzene, 1,2,4-trimethyl-	ug/l								19 NJ		
Benzene, 1-ethyl-2,3-dimethyl-	ug/l										
Benzene, 2-ethenyl-1,4-dimethyl-	ug/l										
Benzene, 4-ethyl-1,2-dimethyl-	ug/l								16 NJ		
Benzene, propyl-	ug/l								6.3 NJ		
Indane	ug/l								19 NJ		
Naphthalene	ug/l								9.1 NJ		
Sulfur dioxide	ug/l										
Unknown	ug/l										7.4 NJ

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Generic Groundwater Quality Criteria

TABLE 5A
SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	RW-13 (71-91)	RW-13 (100-120)	RW-13 (150-170)	RW-14S (135-155)	RW-14D (175-185)	RW-15S (110-120)	RW-15D (127-137)	SC-1
1,1-Dichloroethane	ug/l								
1,4-Dichlorobenzene	ug/l								
2-Butanone (MEK)	ug/l		3.6 J			3.5 J			
Acetone	ug/l	8.4 B	25	4.5 UB	13 B	15 B	29 B	27 B	
Benzene	ug/l					0.31 J			1.8
Carbon disulfide	ug/l			0.37 J	0.56 J	1	5.1	8.7	
Chlorobenzene	ug/l								0.35 J
Chloroethane[1]	ug/l								2
cis-1,2-Dichloroethene	ug/l								
Cyclohexane	ug/l		0.45 J						2.5
Ethylbenzene	ug/l			0.48 J					1.5
Isopropylbenzene	ug/l								2
Methyl tert-butyl ether	ug/l								
Methylcyclohexane	ug/l								1.9
Methylene Chloride	ug/l	0.35 UB	0.24 UB						
Toluene	ug/l		0.99 J	0.33 J	0.96 J	0.85 J	1.2	1.7	0.38 J
Trichloroethene	ug/l		0.37 J	0.69 J					
Xylenes, Total	ug/l								64
Tentatively Identified Compounds (TICs)									

TABLE 5A
SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	RW-13 (71-91)	RW-13 (100-120)	RW-13 (150-170)	RW-14S (135-155)	RW-14D (175-185)	RW-15S (110-120)	RW-15D (127-137)	SC-1
1H-Indene, 2,3-dihydro-4-methyl-	ug/l								
3-Phenylbut-1-ene	ug/l								6.4 NJ
Benzene, (3-methyl-2-butenyl)-	ug/l								
Benzene, 1,2,3,4-tetramethyl-	ug/l								6.2 NJ
Benzene, 1,2,3,5-tetramethyl-	ug/l								11 NJ
Benzene, 1,2,3-trimethyl-	ug/l								6.6 NJ
Benzene, 1,2,4,5-tetramethyl-	ug/l								7 NJ
Benzene, 1,2,4-trimethyl-	ug/l								8.3 NJ
Benzene, 1-ethyl-2,3-dimethyl-	ug/l								8.8 NJ
Benzene, 2-ethenyl-1,4-dimethyl-	ug/l								
Benzene, 4-ethyl-1,2-dimethyl-	ug/l								
Benzene, propyl-	ug/l								
Indane	ug/l								
Naphthalene	ug/l								8.8 NJ
Sulfur dioxide	ug/l							19 NJ	
Unknown	ug/l								

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Generic Groundwater Quality Criteria

TABLE 5B
SUMMARY OF DETECTED SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) and PCBs IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-11R	OB-19	OB-20A	OB-20B	OB-25	OB-27	OB-30B	OB-30C	OB-31	OB-32
2-Methylnaphthalene	ug/l	30										
1,4-Dioxane[1]	ug/L	0.4	5.97	0.878	0.147 J	1.26	0.178	6.47	0.266	0.11 J	1.9	0.422
Atrazine	ug/l	3										
Bis(2-ethylhexyl) phthalate	ug/l	3		1.4 J			1.8 J					
Di-n-butyl phthalate	ug/l	700		1.2 J			1.5 J					
Naphthalene	ug/l	300				2.5 J		3.9 J				
N-Nitrosodiphenylamine	ug/l	10										
Pentachlorophenol	ug/l	0.3			0.11 J	0.11 J					0.1 J	
Phenol	ug/l	2000										
Tentatively Identified Compounds (TICs)												
Benzenesulfonamide, N-butyl-	ug/l											
Unknown	ug/l											
PCBs												
None	ug/l											

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

*Reported 1,4-Dioxane results via Methods 8270 SIM by Alpha Analytical and Method 522 by Pace Analytical, respectively. For RW-3DD, first two results are via Method 8270 SIM with the second result analyzed outside of holding time. Third results is via Method 522. See

[1] Interim Specific Groundwater Quality Criteria

TABLE 5B
SUMMARY OF DETECTED SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) and PCBs IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-3	RW-3 DUP	RW-3DS (155-160)	RW-3DD (175-180)	RW-5	RW-5A	RW-6	RW-6A	RW-11S (236-241)
2-Methylnaphthalene	ug/l	30								1.3 J	
1,4-Dioxane[1]	ug/L	0.4	29.1	29	25.1	152/29.2J/20.9*	10.8		3.7	3.1	1.08
Atrazine	ug/l	3						1.5 J		1.8 J	
Bis(2-ethylhexyl) phthalate	ug/l	3			1.8 UB	0.96 J	2.3		0.93 J		2.8 B
Di-n-butyl phthalate	ug/l	700			1.7 UB		1.5 J				2.4 UB
Naphthalene	ug/l	300								8.2 J	
N-Nitrosodiphenylamine	ug/l	10								1.4 J	
Pentachlorophenol	ug/l	0.3							0.11 J	0.12 J	
Phenol	ug/l	2000									
Tentatively Identified Compounds (TICs)											
Benzenesulfonamide, N-butyl-	ug/l										
Unknown	ug/l										
PCBs											
None	ug/l										

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

*Reported 1,4-Dioxane results via Methods 8270 SIM by Alpha Analytical and Method 522 by Pace Analytical, respectively. For RW-3DD, first two results are via Method 8270 SIM with the second result analyzed outside of holding time. Third results is via Method 522. See

[1] Interim Specific Groundwater Quality Criteria

TABLE 5B
SUMMARY OF DETECTED SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) and PCBs IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-11D (262-267)	RW-13 (71-91)	RW-13 (100-120)	RW-14S (135-155)	RW-14D (175-185)	RW-15S (110-120)	RW-15D (127-137)	SC-1
2-Methylnaphthalene	ug/l	30								
1,4-Dioxane[1]	ug/L	0.4	73.4/54.4*	0.201	0.0972 J	0.251	0.973	0.277 B	0.86	0.905
Atrazine	ug/l	3								
Bis(2-ethylhexyl) phthalate	ug/l	3	1.5 UB					0.95 J		1.2 J
Di-n-butyl phthalate	ug/l	700	1.3 UB							0.89 J
Naphthalene	ug/l	300								5.9 J
N-Nitrosodiphenylamine	ug/l	10								1.1 J
Pentachlorophenol	ug/l	0.3								0.11 J
Phenol	ug/l	2000			4.8 J					
Tentatively Identified Compounds (TICs)										
Benzenesulfonamide, N-butyl-	ug/l					790 NJ	1500 NJ			
Unknown	ug/l					9.5 NJ	8.3 NJ			
PCBs										
None	ug/l									

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

*Reported 1,4-Dioxane results via Methods 8270 SIM by Alpha Analytical and Method 522 by Pace Analytical, respectively. For RW-3DD, first two results are via Method 8270 SIM with the second result analyzed outside of holding time. Third results is via Method 522. See

[1] Interim Specific Groundwater Quality Criteria

TABLE 5C
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	OB-11R	OB-15B	OB-19	OB-20A	OB-20B	OB-21	OB-21 DUP	OB-25
Aluminum	mg/L	0.2	0.0345 J	0.244	0.0426	0.0654	0.0358 J	0.635	0.618	0.804
Aluminum Dissolved	mg/L	0.2	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U
Antimony	mg/L	0.006	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U
Antimony Dissolved	mg/L	0.006	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U
Arsenic	mg/L	0.003	0.0238	0.00071 U	0.0009 J	0.0023	0.0016 J	0.00071 U	0.00071 U	0.00097 J
Arsenic Dissolved	mg/L	0.003	0.00071 U	0.00078 J	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U
Barium	mg/L	6	0.101	0.028	0.0998	0.138	0.0813	0.0093	0.0092	0.0456
Barium Dissolved	mg/L	6	0.0411	0.0015 U	0.0893	0.12	0.0419	0.0035 J	0.0032 J	0.0342
Beryllium	mg/L	0.001	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U
Beryllium Dissolved	mg/L	0.001	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U
Cadmium	mg/L	0.004	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00082 J
Cadmium Dissolved	mg/L	0.004	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U
Calcium	mg/L		61.8	21.3	15.7	23.6	57.2	11	11.2	42.9
Calcium Dissolved	mg/L		61.9	22.2	16.3	24.9	62.6	11.3	11.3	44
Chromium	mg/L	0.07	0.0015 U	0.0015 J	0.0015 U	0.0015 U	0.0015 U	0.0015 J	0.0016 J	0.0016 J
Chromium Dissolved	mg/L	0.07	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Cobalt	mg/L	0.1	0.0024 J	0.0015 U	0.0015 U	0.0015 U	0.0307	0.0019 J	0.0018 J	0.002 J
Cobalt Dissolved	mg/L	0.1	0.0022 J	0.0015 U	0.0015 U	0.0015 U	0.0306	0.0015 U	0.0015 U	0.0015 U
Copper	mg/L	1.3	0.0016 U	0.0019 J	0.0016 U	0.0016 U	0.0016 U	0.0293	0.0258	0.02
Copper Dissolved	mg/L	1.3	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0789
Cyanide, Total	mg/L	0.1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Iron	mg/L	0.3	81.1	0.64	21.2	25.9	44.8	1.25	1.16	1.26
Iron Dissolved	mg/L	0.3	18.9	0.0491 U	0.946	0.0569 J	22.7	0.0491 U	0.0491 U	0.0491 U
Lead	mg/L	0.005	0.00044 U	0.00044 U	0.00047 J	0.00059 J	0.00044 U	0.0015	0.0015	0.0068
Lead Dissolved	mg/L	0.005	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U
Magnesium	mg/L		8.43	5.97	3.19	2.81	11.9	5.41	5.28	9.93
Magnesium Dissolved	mg/L		8.14	5.25	2.84	2.49	12.3	4.52	4.46	9.31
Manganese	mg/L	0.05	12.7	1.2	0.329	0.554	9.82	0.219	0.203	0.178
Manganese Dissolved	mg/L	0.05	12	0.136	0.297	0.494	10.3	0.003 U	0.003 U	0.005 J

TABLE 5C
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	OB-11R	OB-15B	OB-19	OB-20A	OB-20B	OB-21	OB-21 DUP	OB-25
Mercury	mg/L	0.002	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Mercury Dissolved	mg/L	0.002	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Nickel	mg/L	0.1	0.0016 U	0.0114	0.0016 U	0.0016 U	0.0058	0.0042	0.0041	0.0035 J
Nickel Dissolved	mg/L	0.1	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0051	0.0016 U	0.0016 U	0.0016 U
Potassium	mg/L		3.04	0.69	1.01	2.13	2.78	1.02	1.01	7.35
Potassium Dissolved	mg/L		3.05	0.697	1.03	2.26	3.02	1.03	1.04	7.94
Selenium	mg/L	0.04	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U
Selenium Dissolved	mg/L	0.04	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U
Silver	mg/L	0.04	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Silver Dissolved	mg/L	0.04	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Sodium	mg/L	50	4	4.04	3.67	3.5	4.92	3.95	3.9	71.3
Sodium Dissolved	mg/L	50	3.9	4.09	3.63	3.22	5.15	3.93	3.88	67.6
Thallium	mg/L	0.002	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U
Thallium Dissolved	mg/L	0.002	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U
Vanadium	mg/L		0.0014 U	0.0018 J	0.0026 J	0.0014 U	0.0014 U	0.0015 J	0.0015 J	0.0027 J
Vanadium Dissolved	mg/L		0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U
Zinc	mg/L	2	0.0065 U	0.0065 U	0.0071 J	0.0458	0.0065 U	0.0077 J	0.0072 J	0.0286
Zinc Dissolved	mg/L	2	0.0065 U	0.0065 U	0.0065 U	0.0096 J	0.0065 U	0.0065 U	0.0065 U	0.0087 J
Wet Chemistry										
Alkalinity	mg/l		251	74.4	56.9	82.4	241	48.2	44.2	137
Bicarbonate Alkalinity as CaCO3	mg/l		251	74.4	56.9	82.4	241	48.2	44.2	137
Chloride	mg/l	250	5.57	1.65	5.79	4.62 D	4.06 D	1.74	1.67	108 D
Sulfate	mg/l	250	0.11 U	11.4	1.1	0.92	0.11 U	7.79	7.7	18.9 J

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

NA - Not Analyzed-Insufficient Sample Volume

TABLE 5C
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	OB-27	OB-30B	OB-30C	OB-31	OB-32	RW-3	RW-3 DUP	RW-3DS (155-160)
Aluminum	mg/L	0.2	0.0533	0.0398 J	0.238	0.154	0.0526	0.0182 U	0.0182 U	0.0405
Aluminum Dissolved	mg/L	0.2	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0182 U	0.0182 U	0.0544
Antimony	mg/L	0.006	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00062 U	0.00062 U	0.00072 J
Antimony Dissolved	mg/L	0.006	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00062 U	0.00062 U	0.00062 U
Arsenic	mg/L	0.003	0.0225	0.00071 U	0.00082 J	0.0128	0.0152	0.00064 U	0.00064 U	0.0147
Arsenic Dissolved	mg/L	0.003	0.00071 U	0.00071 U	0.00088 J	0.00071 U	0.00071 U	0.00064 U	0.00064 U	0.0135
Barium	mg/L	6	0.0637	0.0397	0.0173	0.0423	0.0564	0.046	0.0456	0.0114
Barium Dissolved	mg/L	6	0.0386	0.0396	0.0141	0.0274	0.0295	0.0463	0.0454	0.0134
Beryllium	mg/L	0.001	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00024 U	0.00024 U	0.00024 U
Beryllium Dissolved	mg/L	0.001	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00024 U	0.00024 U	0.00024 U
Cadmium	mg/L	0.004	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00071 U	0.00071 U	0.00071 U
Cadmium Dissolved	mg/L	0.004	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00071 U	0.00071 U	0.00071 U
Calcium	mg/L		33.2	26.9	40.1	23.8	37.5	60	60.9	42.5
Calcium Dissolved	mg/L		34.7	27.9	39.2	24.6	38.8	58.8	58.5	42.5
Chromium	mg/L	0.07	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.0014 J
Chromium Dissolved	mg/L	0.07	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.0013 U
Cobalt	mg/L	0.1	0.004	0.002 J	0.0015 U	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.0013 U
Cobalt Dissolved	mg/L	0.1	0.0037 J	0.0015 J	0.0015 U	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.0013 U
Copper	mg/L	1.3	0.0016 U	0.0024 J	0.0016 U	0.0019 J	0.0016 U	0.0014 U	0.0014 U	0.0014 U
Copper Dissolved	mg/L	1.3	0.0016 U	0.0019 J	0.0016 U	0.0016 U	0.0016 U	0.0014 U	0.0014 U	0.0014 U
Cyanide, Total	mg/L	0.1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Iron	mg/L	0.3	52.1	0.0632 J	0.397	43.3	65.8	0.0424 U	0.0424 U	0.0424 U
Iron Dissolved	mg/L	0.3	14.3	0.0491 U	0.0491 U	11.5	20.8	0.0424 U	0.0424 U	0.0424 U
Lead	mg/L	0.005	0.0011 J	0.00044 U	0.00052 J	0.00066 J	0.00044 U	0.00038 U	0.00038 U	0.00038 U
Lead Dissolved	mg/L	0.005	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00038 U	0.00038 U	0.00038 U
Magnesium	mg/L		4.73	6.54	19.3	4.19	5.46	16.7	17.4	0.0636 U
Magnesium Dissolved	mg/L		4.22	5.96	18.2	3.67	4.84	16	16.1	0.0636 U
Manganese	mg/L	0.05	7.41	1.18	0.103	6.15	9.37	0.118	0.12	0.0025 U
Manganese Dissolved	mg/L	0.05	7.34	1.03	0.0562	6.12	9.3	0.115	0.111	0.0025 U

TABLE 5C
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	OB-27	OB-30B	OB-30C	OB-31	OB-32	RW-3	RW-3 DUP	RW-3DS (155-160)
Mercury	mg/L	0.002	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00017 U	0.00017 U	0.00017 U
Mercury Dissolved	mg/L	0.002	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00017 U	0.00017 U	0.00017 U
Nickel	mg/L	0.1	0.0021 J	0.0027 J	0.0016 U	0.0016 U	0.0016 U	0.0053	0.0052	0.0026 J
Nickel Dissolved	mg/L	0.1	0.0016 J	0.0024 J	0.0016 U	0.0016 U	0.0016 U	0.0036 J	0.0039 J	0.0025 J
Potassium	mg/L		1.49	3.34	5.29	1.33	2.37	2.1	2.14	32.8
Potassium Dissolved	mg/L		1.54	3.31	5.26	1.33	2.36	2.19	2.2	39
Selenium	mg/L	0.04	0.00079 U	0.00079 U	0.0018 J	0.00079 U	0.00079 U	0.00073 U	0.00073 U	0.0021 J
Selenium Dissolved	mg/L	0.04	0.00079 U	0.00079 U	0.0026 J	0.00079 U	0.00079 U	0.00073 U	0.00073 U	0.0027 J
Silver	mg/L	0.04	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.0013 U
Silver Dissolved	mg/L	0.04	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.0013 U
Sodium	mg/L	50	3.14	31.6	9.55	3.25	3.91	7.63	7.88	189
Sodium Dissolved	mg/L	50	3.12	30.1	9.19	3.09	3.9	7.5	7.45	166
Thallium	mg/L	0.002	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00026 U	0.00026 U	0.00026 U
Thallium Dissolved	mg/L	0.002	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00026 U	0.00026 U	0.00026 U
Vanadium	mg/L		0.0014 U	0.0014 U	0.0051	0.0014 U	0.0014 U	0.0019 U	0.0019 U	0.0055
Vanadium Dissolved	mg/L		0.0014 U	0.0014 U	0.0043	0.0014 U	0.0014 U	0.0019 U	0.0019 U	0.0037 J
Zinc	mg/L	2	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.007 U	0.007 U	0.007 U
Zinc Dissolved	mg/L	2	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.007 U	0.007 U	0.007 U
Wet Chemistry										
Alkalinity	mg/l		125	60.3	125	111	159	225	223	101
Bicarbonate Alkalinity as CaCO3	mg/l		125	60.3	125	111	159	225	223	5 U
Chloride	mg/l	250	5.41	39.6	34.9 D	5.53	5.74	7.94 D	7.97 D	53.1 D
Sulfate	mg/l	250	0.11 U	32.7	26.5 D	0.11 U	0.11 U	11.5	11.5	393 D

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

NA - Not Analyzed-Insufficient Sample Volume

TABLE 5C
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	RW-3DD (175-180)	RW-4 (333-343)	RW-4 (393-403)	RW-4A (62-72)	RW-4A (113-123)	RW-5	RW-5A	RW-6
Aluminum	mg/L	0.2	0.102	0.942	0.448	0.121	0.0838	0.168	0.0659	0.0184 J
Aluminum Dissolved	mg/L	0.2	0.0785	0.85	0.0316 J	0.0182 U	0.0182 U	0.0483	0.0135 U	0.0135 U
Antimony	mg/L	0.006	0.00062 U	0.00062 U	0.00062 U	0.00062 U	0.00062 U	0.00076 U	0.00076 U	0.00076 U
Antimony Dissolved	mg/L	0.006	0.00062 U	0.00062 U	0.00062 U	0.00062 U	0.00062 U	0.00076 U	0.00076 U	0.00076 U
Arsenic	mg/L	0.003	0.0168	0.0011 J	0.00064 U	0.00064 U	0.00064 U	0.008	0.00097 J	0.0012 J
Arsenic Dissolved	mg/L	0.003	0.0166	0.00083 J	0.00064 U	0.00064 U	0.00064 U	0.0079	0.0013 J	0.00071 U
Barium	mg/L	6	0.0085	0.0218	0.0154	0.0044	0.0162	0.0059	0.0178	0.429
Barium Dissolved	mg/L	6	0.0048	0.0154	0.013	0.0044	0.0162	0.0043	0.0178	0.261
Beryllium	mg/L	0.001	0.00024 U	0.00024 U	0.00024 U	0.00024 U	0.00024 U	0.00029 U	0.00029 U	0.00029 U
Beryllium Dissolved	mg/L	0.001	0.00024 U	0.00024 U	0.00024 U	0.00024 U	0.00024 U	0.00029 U	0.00029 U	0.00029 U
Cadmium	mg/L	0.004	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00072 U	0.00072 U	0.00072 U
Cadmium Dissolved	mg/L	0.004	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00072 U	0.00072 U	0.00072 U
Calcium	mg/L		26.3	58.9	18.4	9.34	13.5	10.1	58.5	80.3
Calcium Dissolved	mg/L		11.4	30	17.4	9.3	13.8	8.45	62.5	82
Chromium	mg/L	0.07	0.0013 U	0.0408	0.0017 J	0.0013 U	0.0013 U	0.0015 U	0.0015 U	0.0018 J
Chromium Dissolved	mg/L	0.07	0.0013 U	0.0376	0.0013 U	0.0013 U	0.0013 U	0.0015 U	0.0015 U	0.0015 U
Cobalt	mg/L	0.1	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0015 U	0.0015 U	0.0048
Cobalt Dissolved	mg/L	0.1	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0015 U	0.0015 U	0.0045
Copper	mg/L	1.3	0.0014 U	0.0017 J	0.0014 U	0.002 J	0.0014 U	0.0038 J	0.0016 U	0.0016 U
Copper Dissolved	mg/L	1.3	0.0014 U	0.0014 J	0.0014 U	0.0014 U	0.0014 U	0.0045	0.0016 U	0.0016 U
Cyanide, Total	mg/L	0.1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Iron	mg/L	0.3	0.0424 U	0.0424 U	0.279	0.147	0.0424 U	0.506	0.306	43.8
Iron Dissolved	mg/L	0.3	0.0424 U	0.0424 U	0.0424 U	0.0424 U	0.0424 U	0.0774 J	0.0491 U	7.64
Lead	mg/L	0.005	0.00038 U	0.00038 U	0.00038 J	0.00083 J	0.00038 U	0.0015	0.00044 U	0.00044 U
Lead Dissolved	mg/L	0.005	0.00038 U	0.00038 U	0.00038 U	0.00038 U	0.00038 U	0.00044 U	0.00044 U	0.00044 U
Magnesium	mg/L		1.46	0.0636 U	6.32	3.13	4.75	0.793	7.34	14.9
Magnesium Dissolved	mg/L		1.74	0.0636 U	5.69	3.72	4.77	0.408	7.29	14.6
Manganese	mg/L	0.05	0.0025 U	0.0025 U	0.006 J	0.0029 J	0.0025 U	0.0605	0.678	7.47
Manganese Dissolved	mg/L	0.05	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0054 J	0.675	7.42

TABLE 5C
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	RW-3DD (175-180)	RW-4 (333-343)	RW-4 (393-403)	RW-4A (62-72)	RW-4A (113-123)	RW-5	RW-5A	RW-6
Mercury	mg/L	0.002	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00014 U	0.00014 U	0.00014 U
Mercury Dissolved	mg/L	0.002	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00014 U	0.00014 U	0.00014 U
Nickel	mg/L	0.1	0.0014 U	0.0014 U	0.0018 J	0.0213	0.0722	0.0021 J	0.0016 U	0.0016 U
Nickel Dissolved	mg/L	0.1	0.0014 U	0.0014 U	0.0014 U	0.0247	0.0412	0.0017 J	0.0016 U	0.0016 U
Potassium	mg/L		8.48	5.23	3.31	1.24	1.45	76.5	7.85	3.09
Potassium Dissolved	mg/L		8.6	5.28	1.97	1.22	1.58	81.3	8.54	3.25
Selenium	mg/L	0.04	0.00073 U	0.00073 U	0.00073 U	0.00073 U	0.00073 U	0.00079 U	0.00079 U	0.00079 U
Selenium Dissolved	mg/L	0.04	0.00073 U	0.00079 J	0.00073 U	0.00073 U	0.00073 U	0.00079 U	0.00079 U	0.00079 U
Silver	mg/L	0.04	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0015 U	0.0015 U	0.0015 U
Silver Dissolved	mg/L	0.04	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0015 U	0.0015 U	0.0015 U
Sodium	mg/L	50	35.8	19.8	8.28	5.64	6.41	57.7	6.33	7.58
Sodium Dissolved	mg/L	50	31.8	18.4	7.18	5.52	6.18	55.9	6.14	7.37
Thallium	mg/L	0.002	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00031 U	0.00031 U	0.00031 U
Thallium Dissolved	mg/L	0.002	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00031 U	0.00031 U	0.00031 U
Vanadium	mg/L		0.004	0.0121	0.0019 U	0.0019 U	0.0019 U	0.0016 J	0.0014 U	0.0014 U
Vanadium Dissolved	mg/L		0.0034 J	0.0108	0.0019 U	0.0019 U	0.0019 U	0.0015 J	0.0014 U	0.0014 U
Zinc	mg/L	2	0.007 U	0.007 U	0.0097 J	0.01 J	0.0147 J	0.0249	0.0068 J	0.0065 U
Zinc Dissolved	mg/L	2	0.007 U	0.007 U	0.007 U	0.0079 J	0.007 U	0.0065 U	0.0065 U	0.0065 U
Wet Chemistry										
Alkalinity	mg/l		64.3	161	68.3	40.2	50.3	227	191	304
Bicarbonate Alkalinity as CaCO3	mg/l		8	10 U	68.3	40.2	50.3	22.1	191	304
Chloride	mg/l	250	12.3 D	5.38 D	1.76	1.75	1.74	2.2	3.69 D	6.13 D
Sulfate	mg/l	250	37.2 D	27.5 D	18.9	11.4	16.9	20	9.19	0.68

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

NA - Not Analyzed-Insufficient Sample Volume

TABLE 5C
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	RW-6A	RW-7	RW-11S (236-241)	RW-11D (262-267)	RW-13 (71-91)	RW-13 (100-120)	RW-13 (150-170)	RW-14S (135-155)
Aluminum	mg/L	0.2	0.0235 J	0.295	0.0182 U	9.1	0.051	5.08	0.0894	0.0182 U
Aluminum Dissolved	mg/L	0.2	0.0135 U	0.0135 U	0.0182 U	8.17	0.0182 U	NA	0.0182 U	0.0182 U
Antimony	mg/L	0.006	0.00076 U	0.00076 U	0.00062 U	0.00062 U	0.00062 U	0.00062 U	0.00062 U	0.00062 U
Antimony Dissolved	mg/L	0.006	0.00076 U	0.00076 U	0.00062 U	0.00062 UJ	0.00062 U	NA	0.00062 U	0.00062 U
Arsenic	mg/L	0.003	0.00071 U	0.00071 U	0.00064 U	0.00088 J	0.00064 U	0.0031	0.0016 J	0.014
Arsenic Dissolved	mg/L	0.003	0.00071 U	0.00071 U	0.00064 U	0.00092 J	0.00064 U	NA	0.0014 J	0.0113
Barium	mg/L	6	0.0472	0.0022 J	0.0159	0.233	0.0112	0.0177	0.0482	0.0181
Barium Dissolved	mg/L	6	0.0294	0.0015 U	0.0157	0.238	0.0114	NA	0.0289	0.016
Beryllium	mg/L	0.001	0.00029 U	0.00029 U	0.00024 U	0.00024 U	0.00024 U	0.00024 U	0.00024 U	0.00024 U
Beryllium Dissolved	mg/L	0.001	0.00029 U	0.00029 U	0.00024 U	0.00024 U	0.00024 U	NA	0.00024 U	0.00024 U
Cadmium	mg/L	0.004	0.00072 U	0.00072 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U
Cadmium Dissolved	mg/L	0.004	0.00072 U	0.00072 U	0.00071 U	0.00071 U	0.00071 U	NA	0.00071 U	0.00071 U
Calcium	mg/L		86.2	12.3	16	200	41.2	13.8	34.9	40
Calcium Dissolved	mg/L		91	11.8	15.2	183	42.6	NA	34.8	41.6
Chromium	mg/L	0.07	0.0015 U	0.0015 U	0.0013 U	0.0043	0.0013 U	0.0223	0.0013 U	0.0013 U
Chromium Dissolved	mg/L	0.07	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.0013 U	NA	0.0013 U	0.0013 U
Cobalt	mg/L	0.1	0.0203	0.0015 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U
Cobalt Dissolved	mg/L	0.1	0.0193	0.0015 U	0.0013 U	0.0013 U	0.0013 U	NA	0.0013 U	0.0013 U
Copper	mg/L	1.3	0.0016 U	0.0027 J	0.0058	0.0014 U	0.0024 J	0.0148	0.0014 U	0.0032 J
Copper Dissolved	mg/L	1.3	0.0016 U	0.0016 U	0.0019 J	0.0014 U	0.0014 U	NA	0.0014 U	0.0014 U
Cyanide, Total	mg/L	0.1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Iron	mg/L	0.3	23.6	1.05	0.142	0.127	0.149	0.344	0.365	3.4
Iron Dissolved	mg/L	0.3	7.17	0.0491 U	0.0424 U	0.0424 U	0.0424 U	NA	0.0424 U	1.89
Lead	mg/L	0.005	0.00044 U	0.00059 J	0.00038 U	0.00038 U	0.00038 U	0.00078 J	0.00054 J	0.00081 J
Lead Dissolved	mg/L	0.005	0.00044 U	0.00044 U	0.00038 U	0.00038 U	0.00038 U	NA	0.00038 U	0.00038 U
Magnesium	mg/L		22	4.57	1.86	0.0636 U	15.1	0.0636 U	5.86	8.49
Magnesium Dissolved	mg/L		21.5	3.78	2.03	0.0636 U	15.3	NA	7.02	8.15
Manganese	mg/L	0.05	14.8	0.0158	0.327	0.0068 J	0.0039 J	0.0025 U	0.104	0.11
Manganese Dissolved	mg/L	0.05	14.8	0.003 U	0.331	0.0025 U	0.0025 U	NA	0.11	0.101

TABLE 5C
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	RW-6A	RW-7	RW-11S (236-241)	RW-11D (262-267)	RW-13 (71-91)	RW-13 (100-120)	RW-13 (150-170)	RW-14S (135-155)
Mercury	mg/L	0.002	0.00014 U	0.00014 U	0.00049	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00017 U
Mercury Dissolved	mg/L	0.002	0.00014 U	0.00014 U	0.00017 U	0.00017 U	0.00017 U	NA	0.00017 U	0.00017 U
Nickel	mg/L	0.1	0.0032 J	0.0016 U	0.0014 U	0.0119	0.0014 U	0.0028 J	0.0054	0.0025 J
Nickel Dissolved	mg/L	0.1	0.0032 J	0.0016 U	0.0014 U	0.0094	0.0014 U	NA	0.0056	0.0014 J
Potassium	mg/L		2.78	0.953	1.4	52.5	3.04	185	2.26	4.3
Potassium Dissolved	mg/L		3.01	0.963	1.39	51.3	3.01	NA	2.07	4.23
Selenium	mg/L	0.04	0.00079 U	0.00079 U	0.00073 U	0.0013 J	0.00073 U	0.0092 J	0.00073 U	0.00073 U
Selenium Dissolved	mg/L	0.04	0.00079 U	0.00079 U	0.00073 U	0.0014 J	0.00073 U	NA	0.00073 U	0.00073 U
Silver	mg/L	0.04	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U
Silver Dissolved	mg/L	0.04	0.0015 U	0.0015 U	0.0013 U	0.0013 UJ	0.0013 U	NA	0.0013 U	0.0013 U
Sodium	mg/L	50	8.24	4.21	2.67	184	14.1	190	18.2	58.9
Sodium Dissolved	mg/L	50	8.19	4.07	2.92	187	14.3	NA	18	53.9
Thallium	mg/L	0.002	0.00031 U	0.00031 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U
Thallium Dissolved	mg/L	0.002	0.00031 U	0.00031 U	0.00026 U	0.00026 U	0.00026 U	NA	0.00026 U	0.00026 U
Vanadium	mg/L		0.0022 J	0.0014 U	0.0019 U	0.0019 U	0.0019 U	0.0441	0.0019 U	0.0021 J
Vanadium Dissolved	mg/L		0.0014 U	0.0014 U	0.0019 U	0.0019 U	0.0019 U	NA	0.0019 U	0.0019 U
Zinc	mg/L	2	0.0065 U	0.0065 U	0.0122 J	0.007 U	0.007 U	0.007 U	0.0085 J	0.007 U
Zinc Dissolved	mg/L	2	0.0065 U	0.0065 U	0.011 J	0.007 U	0.007 U	NA	0.007 U	0.007 U
Wet Chemistry										
Alkalinity	mg/l		352	40.2	46.2	900	115	NA	127	119
Bicarbonate Alkalinity as CaCO3	mg/l		352	40.2	46.2	10 U	115	NA	127	119
Chloride	mg/l	250	3.11 D	1.62	1	56.8 D	436 D	NA	195 D	40.2 D
Sulfate	mg/l	250	0.75	9.1	7.37	2.01	18.9	NA	210	75.5 D

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

NA - Not Analyzed-Insufficient Sample Volume

TABLE 5C
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	RW-14D (175-185)	RW-15S (110-120)	RW-15D (127-137)	SC-1
Aluminum	mg/L	0.2	0.0182 U	0.072	0.112	0.05
Aluminum Dissolved	mg/L	0.2	0.0182 U	0.0507	0.0517	0.0135 U
Antimony	mg/L	0.006	0.00062 U	0.00062 U	0.00062 U	0.00076 U
Antimony Dissolved	mg/L	0.006	0.00062 U	0.00062 U	0.00062 U	0.00076 U
Arsenic	mg/L	0.003	0.0088	0.0127	0.0022	0.00071 U
Arsenic Dissolved	mg/L	0.003	0.0011 J	0.0078	0.0012 J	0.00071 U
Barium	mg/L	6	0.0309	0.0096	0.0349	0.429
Barium Dissolved	mg/L	6	0.0316	0.0076	0.0309	0.36
Beryllium	mg/L	0.001	0.00024 U	0.00024 U	0.00024 U	0.00029 U
Beryllium Dissolved	mg/L	0.001	0.00024 U	0.00024 U	0.00024 U	0.00029 U
Cadmium	mg/L	0.004	0.00071 U	0.00071 U	0.00071 U	0.00072 U
Cadmium Dissolved	mg/L	0.004	0.00071 U	0.00071 U	0.00071 U	0.00072 U
Calcium	mg/L		64.8	63.6	141	43.6
Calcium Dissolved	mg/L		93.4	35.1	106	42.9
Chromium	mg/L	0.07	0.0013 U	0.0014 J	0.0028 J	0.0035 J
Chromium Dissolved	mg/L	0.07	0.0013 U	0.0013 U	0.002 J	0.0015 U
Cobalt	mg/L	0.1	0.0013 U	0.0013 U	0.0013 U	0.0034 J
Cobalt Dissolved	mg/L	0.1	0.0013 U	0.0013 U	0.0013 U	0.0032 J
Copper	mg/L	1.3	0.0014 J	0.0019 J	0.0014 U	0.0016 U
Copper Dissolved	mg/L	1.3	0.0014 U	0.0014 U	0.0014 U	0.0016 U
Cyanide, Total	mg/L	0.1	0.0022 J	0.002 U	0.002 U	0.0031 J
Iron	mg/L	0.3	26	0.0424 U	0.101 J	77.2
Iron Dissolved	mg/L	0.3	3.99 J	0.0424 U	0.0996 J	44.6
Lead	mg/L	0.005	0.00038 U	0.00058 J	0.00038 U	0.0079
Lead Dissolved	mg/L	0.005	0.00038 U	0.00038 U	0.00038 U	0.00044 U
Magnesium	mg/L		14.3	2.15	0.249	4.72
Magnesium Dissolved	mg/L		18.6	1.48	0.183 J	4.82
Manganese	mg/L	0.05	0.608	0.0025 U	0.0025 U	0.839
Manganese Dissolved	mg/L	0.05	0.889	0.0025 U	0.0025 U	0.764

TABLE 5C
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	RW-14D (175-185)	RW-15S (110-120)	RW-15D (127-137)	SC-1
Mercury	mg/L	0.002	0.00017 U	0.00017 U	0.00017 U	0.00014 U
Mercury Dissolved	mg/L	0.002	0.00017 U	0.00017 U	0.00017 U	0.00014 U
Nickel	mg/L	0.1	0.0016 J	0.0018 J	0.0057	0.0132
Nickel Dissolved	mg/L	0.1	0.0014 U	0.0026 J	0.0059	0.0276
Potassium	mg/L		3.96	9.6 J	27.5	2.61
Potassium Dissolved	mg/L		5.69	12.2	28	2.53
Selenium	mg/L	0.04	0.00073 U	0.0014 J	0.0041 J	0.00079 U
Selenium Dissolved	mg/L	0.04	0.00073 U	0.0021 J	0.0052 J	0.00079 U
Silver	mg/L	0.04	0.0013 U	0.0013 U	0.0013 U	0.0015 U
Silver Dissolved	mg/L	0.04	0.0013 U	0.0013 U	0.0013 U	0.0015 U
Sodium	mg/L	50	68.2	26.2	81.8	4
Sodium Dissolved	mg/L	50	115	32.5	83.1	3.96
Thallium	mg/L	0.002	0.00026 U	0.00026 U	0.00026 U	0.00031 U
Thallium Dissolved	mg/L	0.002	0.00026 U	0.00026 U	0.00026 U	0.00031 U
Vanadium	mg/L		0.0019 U	0.02	0.011	0.0026 J
Vanadium Dissolved	mg/L		0.0019 U	0.0249	0.009	0.0014 U
Zinc	mg/L	2	0.007 U	0.007 U	0.007 U	0.0183
Zinc Dissolved	mg/L	2	0.007 U	0.007 U	0.007 U	0.0065 U
Wet Chemistry						
Alkalinity	mg/l		146	40.2	350	171
Bicarbonate Alkalinity as CaCO3	mg/l		146	5 U	10 U	171
Chloride	mg/l	250	43.4 D	12.6 D	27.8 D	3.41 D
Sulfate	mg/l	250	163 D	138 D	219 D	0.11 U

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

NA - Not Analyzed-Insufficient Sample Volume

TABLE 5D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-11R	OB-15B	OB-19	OB-20A	OB-20B	OB-21	OB-21 DUP	OB-25
1,1,1-Trichloroethane	ug/l	30	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	1	0.19 U	0.19 U	0.19 U	0.19 UJ	0.19 UJ	0.19 UJ	0.19 UJ	0.19 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l		0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	3	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1-Dichloroethene	ug/l	1	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l		0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l	0.03	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	ug/l	9	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l	0.02	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
1,2-Dichlorobenzene	ug/l	600	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloroethane	ug/l	2	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	ug/l	1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	600	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	ug/l	75	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone (MEK)	ug/l	300	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
2-Hexanone	ug/l	300	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l		0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l	6000	1.1 U	1.1 U	1.1 U	1.1 U	7.8	1.1 U	1.1 U	1.1 U
Benzene	ug/l	1	3.2	0.09 U	0.23 J	0.09 U	0.15 J	0.09 U	0.09 U	0.09 U
Bromoform	ug/l	4	0.18 UJ	0.18 UJ	0.18 UB	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Bromomethane	ug/l	10	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l	700	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Carbon tetrachloride	ug/l	1	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chlorobromomethane	ug/l		0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane[1]	ug/l	5	24	0.37 U	1.5	0.37 U	3.9	0.37 U	0.37 U	0.37 U
Chloroform	ug/l	70	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U

TABLE 5D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-11R	OB-15B	OB-19	OB-20A	OB-20B	OB-21	OB-21 DUP	OB-25
Chloromethane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l	70	0.43 J	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,3-Dichloropropene	ug/l		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l		2.8	0.26 U	0.26 U	0.26 U	1	0.26 U	0.26 U	0.26 U
Dichlorobromomethane	ug/l	1	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l	1000	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Ethylbenzene	ug/l	700	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Ethylene Dibromide	ug/l	0.03	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l	700	0.83 J	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Methyl acetate	ug/l	7000	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l		0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l		0.74 J	0.22 U	0.22 U	0.22 U	0.66 J	0.22 U	0.22 U	0.22 U
Methylene Chloride	ug/l	3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Styrene	ug/l	100	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	1	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	ug/l	600	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-Dichloroethene	ug/l	100	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l		0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	ug/l	2000	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Vinyl chloride	ug/l	1	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Xylenes, Total	ug/l	1000	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Tentatively Identified Compounds (TICs)										
1H-Indene, 2,3-dihydro-4-methyl-	ug/l									
3-Phenylbut-1-ene	ug/l									
Benzene, (3-methyl-2-butenyl)-	ug/l									
Benzene, 1,2,3,4-tetramethyl-	ug/l									
Benzene, 1,2,3,5-tetramethyl-	ug/l									
Benzene, 1,2,3-trimethyl-	ug/l									

TABLE 5D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-11R	OB-15B	OB-19	OB-20A	OB-20B	OB-21	OB-21 DUP	OB-25
Benzene, 1,2,4,5-tetramethyl-	ug/l									
Benzene, 1,2,4-trimethyl-	ug/l									
Benzene, 1-ethyl-2,3-dimethyl-	ug/l									
Benzene, 2-ethenyl-1,4-dimethyl-	ug/l		6.5 NJ							
Benzene, 4-ethyl-1,2-dimethyl-	ug/l									
Benzene, propyl-	ug/l									
Indane	ug/l									
Naphthalene	ug/l	300								
Sulfur dioxide	ug/l									
Unknown	ug/l									

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Generic Groundwater Quality Criteria

TABLE 5D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-27	OB-30B	OB-30C	OB-31	OB-32	RW-3	RW-3 DUP	RW-3DS (155-160)
1,1,1-Trichloroethane	ug/l	30	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	1	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l		0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	3	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	2.2
1,1-Dichloroethene	ug/l	1	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l		0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l	0.03	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	ug/l	9	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l	0.02	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
1,2-Dichlorobenzene	ug/l	600	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloroethane	ug/l	2	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	ug/l	1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	600	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	ug/l	75	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone (MEK)	ug/l	300	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
2-Hexanone	ug/l	300	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l		0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l	6000	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	7.6 B	9.4 B	11 B
Benzene	ug/l	1	2.3	0.09 U	0.09 U	0.14 J	0.09 U	0.09 U	0.09 U	0.13 J
Bromoform	ug/l	4	0.18 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.18 U	0.18 U	0.18 U
Bromomethane	ug/l	10	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l	700	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	6.5
Carbon tetrachloride	ug/l	1	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chlorobromomethane	ug/l		0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane[1]	ug/l	5	61	0.37 U	0.37 U	4.9	0.37 U	0.37 U	0.37 U	0.37 U
Chloroform	ug/l	70	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U

TABLE 5D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-27	OB-30B	OB-30C	OB-31	OB-32	RW-3	RW-3 DUP	RW-3DS (155-160)
Chloromethane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l	70	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,3-Dichloropropene	ug/l		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l		1.7	0.26 U	0.26 U	0.41 J	0.39 J	0.26 U	0.26 U	0.26 U
Dichlorobromomethane	ug/l	1	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l	1000	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Ethylbenzene	ug/l	700	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.31 J
Ethylene Dibromide	ug/l	0.03	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l	700	2.9	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Methyl acetate	ug/l	7000	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l		0.13 U	0.13 U	0.21 J	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l		1.3	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Methylene Chloride	ug/l	3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Styrene	ug/l	100	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	1	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	ug/l	600	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.67 J
trans-1,2-Dichloroethene	ug/l	100	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l		0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	ug/l	2000	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Vinyl chloride	ug/l	1	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 UJ	0.06 UJ	0.06 U
Xylenes, Total	ug/l	1000	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.58 J
Tentatively Identified Compounds (TICs)										
1H-Indene, 2,3-dihydro-4-methyl-	ug/l		15 NJ							
3-Phenylbut-1-ene	ug/l									
Benzene, (3-methyl-2-butenyl)-	ug/l		7.5 NJ							
Benzene, 1,2,3,4-tetramethyl-	ug/l									
Benzene, 1,2,3,5-tetramethyl-	ug/l									
Benzene, 1,2,3-trimethyl-	ug/l									

TABLE 5D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-27	OB-30B	OB-30C	OB-31	OB-32	RW-3	RW-3 DUP	RW-3DS (155-160)
Benzene, 1,2,4,5-tetramethyl-	ug/l									
Benzene, 1,2,4-trimethyl-	ug/l									
Benzene, 1-ethyl-2,3-dimethyl-	ug/l		6.4 NJ							
Benzene, 2-ethenyl-1,4-dimethyl-	ug/l									
Benzene, 4-ethyl-1,2-dimethyl-	ug/l									
Benzene, propyl-	ug/l									
Indane	ug/l		9.1 NJ							
Naphthalene	ug/l	300								
Sulfur dioxide	ug/l									
Unknown	ug/l									

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Generic Groundwater Quality Criteria

TABLE 5D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-3DD (175-180)	RW-4 (333-343)	RW-4 (393-403)	RW-4A (62-72)	RW-4A (113-123)	RW-5	RW-5A	RW-6
1,1,1-Trichloroethane	ug/l	30	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	1	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 UJ	0.19 UJ	0.19 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l		0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	3	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l	50	2.2	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.64 J
1,1-Dichloroethene	ug/l	1	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l		0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l	0.03	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	ug/l	9	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l	0.02	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
1,2-Dichlorobenzene	ug/l	600	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloroethane	ug/l	2	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	ug/l	1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	600	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	ug/l	75	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone (MEK)	ug/l	300	3.6 J	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
2-Hexanone	ug/l	300	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l		0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l	6000	13 B	10 B	7 B	7.2 B	5.8 B	1.1 U	1.1 U	1.1 U
Benzene	ug/l	1	0.26 J	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	1.9
Bromoform	ug/l	4	0.18 U	0.18 U	0.18 U	0.18 UJ	0.18 U	0.18 U	0.18 U	0.18 U
Bromomethane	ug/l	10	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l	700	2.5	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Carbon tetrachloride	ug/l	1	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chlorobromomethane	ug/l		0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane[1]	ug/l	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	2.6	0.37 U	10
Chloroform	ug/l	70	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U

TABLE 5D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-3DD (175-180)	RW-4 (333-343)	RW-4 (393-403)	RW-4A (62-72)	RW-4A (113-123)	RW-5	RW-5A	RW-6
Chloromethane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l	70	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,3-Dichloropropene	ug/l		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l		0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.75 J
Dichlorobromomethane	ug/l	1	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l	1000	0.14 U	0.14 U	0.14 U	0.14 UJ	0.14 U	0.14 U	0.14 U	0.14 U
Ethylbenzene	ug/l	700	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Ethylene Dibromide	ug/l	0.03	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l	700	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Methyl acetate	ug/l	7000	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l		0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.75 J
Methylene Chloride	ug/l	3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Styrene	ug/l	100	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	1	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	ug/l	600	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-Dichloroethene	ug/l	100	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l		0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	ug/l	2000	0.15 U	0.15 U	0.15 U	0.15 UJ	0.15 U	0.15 U	0.15 U	0.15 U
Vinyl chloride	ug/l	1	0.06 U	0.06 UJ	0.06 UJ	0.06 U	0.06 UJ	0.06 U	0.06 U	0.06 U
Xylenes, Total	ug/l	1000	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Tentatively Identified Compounds (TICs)										
1H-Indene, 2,3-dihydro-4-methyl-	ug/l									
3-Phenylbut-1-ene	ug/l									
Benzene, (3-methyl-2-butenyl)-	ug/l									
Benzene, 1,2,3,4-tetramethyl-	ug/l									
Benzene, 1,2,3,5-tetramethyl-	ug/l									
Benzene, 1,2,3-trimethyl-	ug/l									

TABLE 5D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-3DD (175-180)	RW-4 (333-343)	RW-4 (393-403)	RW-4A (62-72)	RW-4A (113-123)	RW-5	RW-5A	RW-6
Benzene, 1,2,4,5-tetramethyl-	ug/l									
Benzene, 1,2,4-trimethyl-	ug/l									
Benzene, 1-ethyl-2,3-dimethyl-	ug/l									
Benzene, 2-ethenyl-1,4-dimethyl-	ug/l									
Benzene, 4-ethyl-1,2-dimethyl-	ug/l									
Benzene, propyl-	ug/l									
Indane	ug/l									
Naphthalene	ug/l	300								
Sulfur dioxide	ug/l									
Unknown	ug/l									

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Generic Groundwater Quality Criteria

TABLE 5D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-6A	RW-7	RW-11S (236-241)	RW-11D (262-267)	RW-13 (71-91)	RW-13 (100-120)	RW-13 (150-170)	RW-14S (135-155)
1,1,1-Trichloroethane	ug/l	30	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	1	0.19 UJ	0.19 UJ	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l		0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	3	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l	50	0.3 J	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1-Dichloroethene	ug/l	1	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l		0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l	0.03	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	ug/l	9	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l	0.02	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
1,2-Dichlorobenzene	ug/l	600	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloroethane	ug/l	2	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	ug/l	1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	600	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	ug/l	75	0.33 U	0.33 U	0.33 U	0.83 J	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone (MEK)	ug/l	300	2.2 U	2.2 U	2.2 U	8.2	2.2 U	3.6 J	2.2 U	2.2 U
2-Hexanone	ug/l	300	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l		0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l	6000	9.1	1.1 U	10 B	46 B	8.4 B	25	4.5 UB	13 B
Benzene	ug/l	1	8	0.09 U	0.09 U	6.4	0.09 U	0.09 U	0.09 U	0.09 U
Bromoform	ug/l	4	0.18 U	0.18 U	0.18 U	0.18 U	0.18 UJ	0.18 UJ	0.18 UJ	0.18 U
Bromomethane	ug/l	10	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l	700	0.22 U	0.22 U	0.22 U	12	0.22 U	0.22 U	0.37 J	0.56 J
Carbon tetrachloride	ug/l	1	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	50	0.24 U	0.24 U	0.24 U	4.6	0.24 U	0.24 U	0.24 U	0.24 U
Chlorobromomethane	ug/l		0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane[1]	ug/l	5	5.7	0.37 U	0.37 U	8.6	0.37 U	0.37 U	0.37 U	0.37 U
Chloroform	ug/l	70	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U

TABLE 5D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-6A	RW-7	RW-11S (236-241)	RW-11D (262-267)	RW-13 (71-91)	RW-13 (100-120)	RW-13 (150-170)	RW-14S (135-155)
Chloromethane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l	70	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,3-Dichloropropene	ug/l		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l		3.6	0.26 U	0.26 U	0.31 J	0.26 U	0.45 J	0.26 U	0.26 U
Dichlorobromomethane	ug/l	1	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l	1000	0.14 U	0.14 U	0.14 U	0.14 U	0.14 UJ	0.14 UJ	0.14 UJ	0.14 U
Ethylbenzene	ug/l	700	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.48 J	0.3 U
Ethylene Dibromide	ug/l	0.03	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l	700	5	0.32 U	0.32 U	1.2	0.32 U	0.32 U	0.32 U	0.32 U
Methyl acetate	ug/l	7000	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l		0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l		1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Methylene Chloride	ug/l	3	0.21 U	0.21 U	0.63 J	0.28 J	0.35 UB	0.24 UB	0.21 U	0.21 U
Styrene	ug/l	100	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	1	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	ug/l	600	0.25 U	0.25 U	0.25 U	0.28 J	0.25 U	0.99 J	0.33 J	0.96 J
trans-1,2-Dichloroethene	ug/l	100	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l		0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.37 J	0.69 J	0.22 U
Trichlorofluoromethane	ug/l	2000	0.15 U	0.15 U	0.15 U	0.15 U	0.15 UJ	0.15 UJ	0.15 UJ	0.15 U
Vinyl chloride	ug/l	1	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Xylenes, Total	ug/l	1000	9.7	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Tentatively Identified Compounds (TICs)										
1H-Indene, 2,3-dihydro-4-methyl-	ug/l		6.5 NJ							
3-Phenylbut-1-ene	ug/l		12 NJ							
Benzene, (3-methyl-2-butenyl)-	ug/l									
Benzene, 1,2,3,4-tetramethyl-	ug/l									
Benzene, 1,2,3,5-tetramethyl-	ug/l		10 NJ							
Benzene, 1,2,3-trimethyl-	ug/l									

TABLE 5D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-6A	RW-7	RW-11S (236-241)	RW-11D (262-267)	RW-13 (71-91)	RW-13 (100-120)	RW-13 (150-170)	RW-14S (135-155)
Benzene, 1,2,4,5-tetramethyl-	ug/l		14 NJ							
Benzene, 1,2,4-trimethyl-	ug/l		19 NJ							
Benzene, 1-ethyl-2,3-dimethyl-	ug/l									
Benzene, 2-ethenyl-1,4-dimethyl-	ug/l									
Benzene, 4-ethyl-1,2-dimethyl-	ug/l		16 NJ							
Benzene, propyl-	ug/l		6.3 NJ							
Indane	ug/l		19 NJ							
Naphthalene	ug/l	300	9.1 NJ							
Sulfur dioxide	ug/l									
Unknown	ug/l					7.4 NJ				

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Generic Groundwater Quality Criteria

TABLE 5D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-14D (175-185)	RW-15S (110-120)	RW-15D (127-137)	SC-1
1,1,1-Trichloroethane	ug/l	30	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	1	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l		0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	3	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U
1,1-Dichloroethene	ug/l	1	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l		0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l	0.03	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	ug/l	9	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l	0.02	0.007 U	0.007 U	0.007 U	0.007 U
1,2-Dichlorobenzene	ug/l	600	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloroethane	ug/l	2	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	ug/l	1	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	600	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	ug/l	75	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone (MEK)	ug/l	300	3.5 J	2.2 U	2.2 U	2.2 U
2-Hexanone	ug/l	300	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l		0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l	6000	15 B	29 B	27 B	1.1 U
Benzene	ug/l	1	0.31 J	0.09 U	0.09 U	1.8
Bromoform	ug/l	4	0.18 UJ	0.18 U	0.18 U	0.18 U
Bromomethane	ug/l	10	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l	700	1	5.1	8.7	0.22 U
Carbon tetrachloride	ug/l	1	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	50	0.24 U	0.24 U	0.24 U	0.35 J
Chlorobromomethane	ug/l		0.3 U	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane[1]	ug/l	5	0.37 U	0.37 U	0.37 U	2
Chloroform	ug/l	70	0.22 U	0.22 U	0.22 U	0.22 U

TABLE 5D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-14D (175-185)	RW-15S (110-120)	RW-15D (127-137)	SC-1
Chloromethane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l	70	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,3-Dichloropropene	ug/l		0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l		0.26 U	0.26 U	0.26 U	2.5
Dichlorobromomethane	ug/l	1	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l	1000	0.14 U	0.14 U	0.14 U	0.14 U
Ethylbenzene	ug/l	700	0.3 U	0.3 U	0.3 U	1.5
Ethylene Dibromide	ug/l	0.03	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l	700	0.32 U	0.32 U	0.32 U	2
Methyl acetate	ug/l	7000	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l		0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l		0.22 U	0.22 U	0.22 U	1.9
Methylene Chloride	ug/l	3	0.21 U	0.21 U	0.21 U	0.21 U
Styrene	ug/l	100	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	1	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	ug/l	600	0.85 J	1.2	1.7	0.38 J
trans-1,2-Dichloroethene	ug/l	100	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l		0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	ug/l	2000	0.15 U	0.15 U	0.15 U	0.15 U
Vinyl chloride	ug/l	1	0.06 U	0.06 UJ	0.06 UJ	0.06 U
Xylenes, Total	ug/l	1000	0.28 U	0.28 U	0.28 U	64
Tentatively Identified Compounds (TICs)						
1H-Indene, 2,3-dihydro-4-methyl-	ug/l					
3-Phenylbut-1-ene	ug/l					6.4 NJ
Benzene, (3-methyl-2-butenyl)-	ug/l					
Benzene, 1,2,3,4-tetramethyl-	ug/l					6.2 NJ
Benzene, 1,2,3,5-tetramethyl-	ug/l					11 NJ
Benzene, 1,2,3-trimethyl-	ug/l					6.6 NJ

TABLE 5D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-14D (175-185)	RW-15S (110-120)	RW-15D (127-137)	SC-1
Benzene, 1,2,4,5-tetramethyl-	ug/l					7 NJ
Benzene, 1,2,4-trimethyl-	ug/l					8.3 NJ
Benzene, 1-ethyl-2,3-dimethyl-	ug/l					8.8 NJ
Benzene, 2-ethenyl-1,4-dimethyl-	ug/l					
Benzene, 4-ethyl-1,2-dimethyl-	ug/l					
Benzene, propyl-	ug/l					
Indane	ug/l					
Naphthalene	ug/l	300				8.8 NJ
Sulfur dioxide	ug/l				19 NJ	
Unknown	ug/l					

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Generic Groundwater Quality Criteria

TABLE 5E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parmameter	Result Unit	NJGWQS ug/l	OB-11R	OB-15B	OB-19	OB-20A	OB-20B	OB-21	OB-21 DUP	OB-25
1,1'-Biphenyl	ug/l	400	0.66 U	0.66 U	0.66 U	0.64 U	0.66 U	0.66 U	0.67 U	0.66 U
1,2,4,5-Tetrachlorobenzene	ug/l		0.45 U	0.45 U	0.45 U	0.44 U	0.45 U	0.45 U	0.46 U	0.45 U
1,4-Dioxane[1]	ug/L	0.4	5.97	0.0781 U	0.878	0.147 J	1.26	0.075 U	0.0781 U	0.178
2,2'-oxybis[1-chloropropane]	ug/l	300	0.97 U	0.97 U	0.97 U	0.95 U	0.97 U	0.97 U	0.99 U	0.97 U
2,3,4,6-Tetrachlorophenol	ug/l	200	0.72 U	0.72 U	0.72 U	0.7 U	0.72 U	0.72 U	0.73 U	0.72 U
2,4,5-Trichlorophenol	ug/l	700	0.51 U	0.51 U	0.51 U	0.5 U	0.51 U	0.51 U	0.52 U	0.51 U
2,4,6-Trichlorophenol	ug/l	20	0.55 U	0.55 U	0.55 U	0.54 U	0.55 U	0.55 U	0.56 U	0.55 U
2,4-Dichlorophenol	ug/l	20	0.66 U	0.66 U	0.66 U	0.64 U	0.66 U	0.66 U	0.67 U	0.66 U
2,4-Dimethylphenol	ug/l	100	0.95 U	0.95 U	0.95 U	0.93 U	0.95 U	0.95 U	0.97 U	0.95 U
2,4-Dinitrophenol	ug/l	40	2.5 U	2.5 U	2.5 U	2.4 U	2.5 U	2.5 U	2.5 U	2.5 U
2,4-Dinitrotoluene	ug/l		1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
2,6-Dinitrotoluene	ug/l		0.92 U	0.92 U	0.92 U	0.9 U	0.92 U	0.92 U	0.94 U	0.92 U
2-Chloronaphthalene	ug/l	600	0.64 U	0.64 U	0.64 U	0.62 U	0.64 U	0.64 U	0.65 U	0.64 U
2-Chlorophenol	ug/l	40	0.77 U	0.77 U	0.77 U	0.76 U	0.77 U	0.77 U	0.79 U	0.77 U
2-Methylnaphthalene	ug/l	30	0.92 U	0.92 U	0.92 U	0.9 U	0.92 U	0.92 U	0.94 U	0.92 U
2-Methylphenol	ug/l		1.3 U	1.3 U	1.3 U	1.3 UJ	1.3 UJ	1.3 UJ	1.4 UJ	1.3 UJ
2-Nitroaniline	ug/l		0.68 U	0.68 U	0.68 U	0.66 U	0.68 U	0.68 U	0.69 U	0.68 U
2-Nitrophenol	ug/l		0.62 U	0.62 U	0.61 U	0.6 U	0.62 U	0.61 U	0.63 U	0.61 U
3,3'-Dichlorobenzidine	ug/l	30	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
3-Nitroaniline	ug/l		0.86 U	0.86 U	0.85 U	0.84 U	0.86 U	0.85 U	0.87 U	0.85 U
4,6-Dinitro-2-methylphenol	ug/l	1	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
4-Bromophenyl phenyl ether	ug/l		1.1 U	1.1 U	1.1 U	1 U	1.1 U	1.1 U	1.1 U	1.1 U
4-Chloro-3-methylphenol	ug/l	100	0.79 U	0.79 U	0.79 U	0.78 U	0.79 U	0.79 U	0.81 U	0.79 U
4-Chloroaniline	ug/l		0.76 U	0.76 U	0.76 U	0.74 U	0.76 U	0.76 U	0.78 U	0.76 U
4-Chlorophenyl phenyl ether	ug/l		1 U	1 U	1 U	0.98 U	1 U	1 U	1 U	1 U
4-Methylphenol	ug/l		0.91 U	0.91 U	0.91 U	0.89 U	0.91 U	0.91 U	0.93 U	0.91 U
4-Nitroaniline	ug/l		0.5 U	0.5 U	0.5 U	0.49 U	0.5 U	0.5 U	0.51 U	0.5 U
4-Nitrophenol	ug/l		4.9 U	4.9 U	4.8 U	4.7 U	4.9 U	4.8 U	4.9 U	4.8 U
Acenaphthene	ug/l	400	0.92 U	0.92 U	0.92 U	0.9 U	0.92 U	0.92 U	0.94 U	0.92 U

TABLE 5E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parmameter	Result Unit	NJGWQS ug/l	OB-11R	OB-15B	OB-19	OB-20A	OB-20B	OB-21	OB-21 DUP	OB-25
Acenaphthylene	ug/l	100	0.68 U	0.68 U	0.68 U	0.66 U	0.68 U	0.68 U	0.69 U	0.68 U
Acetophenone	ug/l	700	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Anthracene	ug/l	2000	0.6 U	0.6 U	0.59 U	0.58 U	0.6 U	0.59 U	0.61 U	0.59 U
Atrazine	ug/l	3	0.81 U	0.81 U	0.8 U	0.79 U	0.81 U	0.8 U	0.82 U	0.8 U
Benzaldehyde	ug/l		0.9 U	0.9 U	0.9 U	0.88 U	0.9 U	0.9 U	0.91 U	0.9 U
Benzo[a]anthracene	ug/l	0.1	0.039 U	0.039 U	0.039 U	0.038 U	0.039 U	0.039 U	0.039 U	0.039 U
Benzo[a]pyrene	ug/l	0.1	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.028 U	0.027 U
Benzo[b]fluoranthene	ug/l	0.2	0.013 U	0.013 U	0.013 U	0.012 U	0.013 U	0.013 U	0.013 U	0.013 U
Benzo[g,h,i]perylene	ug/l	100	0.78 U	0.78 U	0.78 U	0.77 U	0.78 U	0.78 U	0.8 U	0.78 U
Benzo[k]fluoranthene	ug/l	0.5	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	0.19 U	0.19 U	0.19 U
Bis(2-chloroethoxy)methane	ug/l		0.72 U	0.72 U	0.72 U	0.7 U	0.72 U	0.72 U	0.73 U	0.72 U
Bis(2-chloroethyl)ether	ug/l	7	0.0094 U	0.0094 U	0.0094 U	0.0092 U	0.0094 U	0.0094 U	0.0096 U	0.0094 U
Bis(2-ethylhexyl) phthalate	ug/l	3	0.75 U	0.75 U	1.4 J	0.73 U	0.75 U	0.75 U	0.77 U	1.8 J
Butyl benzyl phthalate	ug/l	100	0.63 U	0.63 U	0.63 U	0.61 U	0.63 U	0.63 U	0.64 U	0.63 U
Caprolactam	ug/l	5000	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Carbazole	ug/l		0.89 U	0.89 U	0.89 U	0.87 U	0.89 U	0.89 U	0.9 U	0.89 U
Chrysene	ug/l	5	0.7 U	0.7 U	0.7 U	0.68 U	0.7 U	0.7 U	0.71 U	0.7 U
Dibenz(a,h)anthracene	ug/l	0.3	0.023 U	0.023 U	0.023 U	0.022 U	0.023 U	0.023 U	0.023 U	0.023 U
Dibenzofuran	ug/l		0.89 U	0.89 U	0.89 U	0.87 U	0.89 U	0.89 U	0.9 U	0.89 U
Diethyl phthalate	ug/l	6000	1 U	1 U	1 U	1 U	1 U	1 U	1.1 U	1 U
Dimethyl phthalate	ug/l	100	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Di-n-butyl phthalate	ug/l	700	0.86 U	0.86 U	1.2 J	0.84 U	0.86 U	0.85 U	0.87 U	1.5 J
Di-n-octyl phthalate	ug/l	100	0.72 U	0.72 U	0.72 U	0.7 U	0.72 U	0.72 U	0.73 U	0.72 U
Fluoranthene	ug/l	300	0.75 U	0.75 U	0.75 U	0.73 U	0.75 U	0.75 U	0.77 U	0.75 U
Fluorene	ug/l	300	0.84 U	0.84 U	0.83 U	0.82 U	0.84 U	0.83 U	0.85 U	0.83 U
Hexachlorobenzene	ug/l	0.02	0.0094 U	0.0094 U	0.0094 U	0.0092 U	0.0094 U	0.0094 U	0.0096 U	0.0094 U
Hexachlorobutadiene	ug/l	1	0.79 U	0.79 U	0.79 U	0.78 U	0.79 U	0.79 U	0.81 U	0.79 U
Hexachlorocyclopentadiene	ug/l	40	0.64 U	0.64 U	0.64 U	0.62 U	0.64 U	0.64 U	0.65 U	0.64 U
Hexachloroethane	ug/l	7	0.094 U	0.094 U	0.094 U	0.092 U	0.094 U	0.094 U	0.096 U	0.094 U

TABLE 5E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parmameter	Result Unit	NJGWQS ug/l	OB-11R	OB-15B	OB-19	OB-20A	OB-20B	OB-21	OB-21 DUP	OB-25
Indeno[1,2,3-cd]pyrene	ug/l	0.2	0.028 U	0.028 U	0.028 U	0.028 U	0.028 U	0.028 U	0.029 U	0.028 U
Isophorone	ug/l	40	0.7 U	0.7 U	0.7 U	0.68 U	0.7 U	0.7 U	0.71 U	0.7 U
Naphthalene	ug/l	300	0.84 U	0.84 U	0.83 U	0.82 U	2.5 J	0.83 U	0.85 U	0.83 U
Nitrobenzene	ug/l	6	0.51 U	0.51 U	0.51 U	0.5 U	0.51 U	0.51 U	0.52 U	0.51 U
N-Nitrosodi-n-propylamine	ug/l	10	0.87 U	0.87 U	0.86 U	0.85 U	0.87 U	0.86 U	0.88 U	0.86 U
N-Nitrosodiphenylamine	ug/l	10	0.77 U	0.77 U	0.77 U	0.76 U	0.77 U	0.77 U	0.79 U	0.77 U
Pentachlorophenol	ug/l	0.3	0.081 U	0.081 U	0.08 U	0.11 J	0.11 J	0.08 U	0.082 U	0.08 U
Phenanthrene	ug/l	100	0.68 U	0.68 U	0.68 U	0.66 U	0.68 U	0.68 U	0.69 U	0.68 U
Phenol	ug/l	2000	0.43 U	0.43 U	0.43 U	0.42 U	0.43 U	0.43 U	0.44 U	0.43 U
Pyrene	ug/l	200	0.87 U	0.87 U	0.86 U	0.85 U	0.87 U	0.86 U	0.88 U	0.86 U
Tentatively Identified Compounds (TICs)										
Benzenesulfonamide, N-butyl-	ug/l									
Unknown	ug/l									

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

*Reported 1,4-Dioxane results via Methods 8270 SIM by Alpha Analytical and Method 522 by Pace Analytical, respectively. ForRW-3DD, first two results are via Method 8270 SIM with the second result analyzed outside of holding time. Third result is via Method 522. See report text for additional discussion

[1] Interim Specific Groundwater Quality Criteria

TABLE 5E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parmameter	Result Unit	NJGWQS ug/l	OB-27	OB-30B	OB-30C	OB-31	OB-32	RW-3	RW-3 DUP	RW-3DS (155-160)
1,1'-Biphenyl	ug/l	400	0.66 U	0.66 U	0.66 U	0.63 U	0.64 U	0.67 U	0.67 U	0.66 U
1,2,4,5-Tetrachlorobenzene	ug/l		0.45 U	0.45 U	0.45 U	0.43 U	0.44 U	0.46 U	0.46 U	0.45 UJ
1,4-Dioxane[1]	ug/L	0.4	6.47	0.266	0.11 J	1.9	0.422	29.1	29	25.1
2,2'-oxybis[1-chloropropane]	ug/l	300	0.97 U	0.97 U	0.97 U	0.93 U	0.95 U	0.99 U	0.99 U	0.97 U
2,3,4,6-Tetrachlorophenol	ug/l	200	0.72 U	0.72 U	0.72 U	0.69 U	0.7 U	0.73 U	0.73 U	0.72 U
2,4,5-Trichlorophenol	ug/l	700	0.51 U	0.51 U	0.51 U	0.49 U	0.5 U	0.52 U	0.52 U	0.51 U
2,4,6-Trichlorophenol	ug/l	20	0.55 U	0.55 U	0.55 U	0.53 U	0.54 U	0.56 U	0.56 U	0.55 U
2,4-Dichlorophenol	ug/l	20	0.66 U	0.66 U	0.66 U	0.63 U	0.64 U	0.67 U	0.67 U	0.66 U
2,4-Dimethylphenol	ug/l	100	0.95 U	0.95 U	0.95 U	0.91 U	0.93 U	0.97 U	0.97 U	0.95 U
2,4-Dinitrophenol	ug/l	40	2.5 U	2.5 U	2.5 U	2.4 U	2.4 U	2.5 UJ	2.5 UJ	2.5 U
2,4-Dinitrotoluene	ug/l		1.1 U	1.1 U	1.1 U	1 U	1.1 U	1.1 U	1.1 U	1.1 U
2,6-Dinitrotoluene	ug/l		0.92 U	0.92 U	0.92 U	0.88 U	0.9 U	0.94 U	0.94 U	0.92 U
2-Chloronaphthalene	ug/l	600	0.64 U	0.64 U	0.64 U	0.61 U	0.62 U	0.65 U	0.65 U	0.64 U
2-Chlorophenol	ug/l	40	0.77 U	0.77 U	0.77 U	0.74 U	0.76 U	0.79 U	0.79 U	0.77 U
2-Methylnaphthalene	ug/l	30	0.92 U	0.92 U	0.92 U	0.88 U	0.9 U	0.94 U	0.94 U	0.92 U
2-Methylphenol	ug/l		1.3 U	1.3 U	1.3 U	1.3 U	1.3 U	1.4 U	1.4 U	1.3 UJ
2-Nitroaniline	ug/l		0.68 U	0.68 U	0.68 U	0.65 U	0.66 U	0.69 U	0.69 U	0.68 U
2-Nitrophenol	ug/l		0.61 U	0.61 U	0.61 U	0.59 U	0.6 U	0.63 U	0.63 U	0.61 U
3,3'-Dichlorobenzidine	ug/l	30	1.1 U	1.1 U	1.1 U	1 U	1.1 U	1.1 U	1.1 U	1.1 U
3-Nitroaniline	ug/l		0.85 U	0.85 U	0.85 U	0.82 U	0.84 U	0.87 U	0.87 U	0.85 U
4,6-Dinitro-2-methylphenol	ug/l	1	2.1 U	2.1 U	2.1 U	2 U	2.1 U	2.1 U	2.1 U	2.1 U
4-Bromophenyl phenyl ether	ug/l		1.1 U	1.1 U	1.1 U	1 U	1 U	1.1 U	1.1 U	1.1 U
4-Chloro-3-methylphenol	ug/l	100	0.79 U	0.79 U	0.79 U	0.76 U	0.78 U	0.81 U	0.81 U	0.79 U
4-Chloroaniline	ug/l		0.76 U	0.76 U	0.76 U	0.73 U	0.74 U	0.78 U	0.78 U	0.76 U
4-Chlorophenyl phenyl ether	ug/l		1 U	1 U	1 U	0.96 U	0.98 U	1 U	1 U	1 U
4-Methylphenol	ug/l		0.91 U	0.91 U	0.91 U	0.87 U	0.89 U	0.93 U	0.93 U	0.91 U
4-Nitroaniline	ug/l		0.5 U	0.5 U	0.5 U	0.48 U	0.49 U	0.51 U	0.51 U	0.5 U
4-Nitrophenol	ug/l		4.8 U	4.8 U	4.8 U	4.7 U	4.7 U	4.9 U	4.9 U	4.8 U
Acenaphthene	ug/l	400	0.92 U	0.92 U	0.92 U	0.88 U	0.9 U	0.94 U	0.94 U	0.92 U

TABLE 5E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parmameter	Result Unit	NJGWQS ug/l	OB-27	OB-30B	OB-30C	OB-31	OB-32	RW-3	RW-3 DUP	RW-3DS (155-160)
Acenaphthylene	ug/l	100	0.68 U	0.68 U	0.68 U	0.65 U	0.66 U	0.69 U	0.69 U	0.68 U
Acetophenone	ug/l	700	1.1 U	1.1 U	1.1 U	1 U	1.1 U	1.1 U	1.1 U	1.1 U
Anthracene	ug/l	2000	0.59 U	0.59 U	0.59 U	0.57 U	0.58 U	0.61 U	0.61 U	0.59 U
Atrazine	ug/l	3	0.8 U	0.8 U	0.8 U	0.77 U	0.79 U	0.82 U	0.82 U	0.8 U
Benzaldehyde	ug/l		0.9 U	0.9 U	0.9 U	0.86 U	0.88 U	0.91 U	0.91 U	0.9 U
Benzo[a]anthracene	ug/l	0.1	0.039 U	0.039 U	0.039 U	0.037 U	0.038 U	0.039 U	0.039 U	0.039 U
Benzo[a]pyrene	ug/l	0.1	0.027 U	0.027 U	0.027 U	0.026 U	0.027 U	0.028 UJ	0.028 UJ	0.027 U
Benzo[b]fluoranthene	ug/l	0.2	0.013 U	0.013 U	0.013 U	0.012 U	0.012 U	0.013 UJ	0.013 UJ	0.013 U
Benzo[g,h,i]perylene	ug/l	100	0.78 U	0.78 U	0.78 U	0.75 U	0.77 U	0.8 U	0.8 U	0.78 U
Benzo[k]fluoranthene	ug/l	0.5	0.19 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.19 U	0.19 U
Bis(2-chloroethoxy)methane	ug/l		0.72 U	0.72 U	0.72 U	0.69 U	0.7 U	0.73 U	0.73 U	0.72 U
Bis(2-chloroethyl)ether	ug/l	7	0.0094 U	0.0094 U	0.0094 U	0.009 U	0.0092 U	0.0096 UJ	0.0096 UJ	0.0094 U
Bis(2-ethylhexyl) phthalate	ug/l	3	0.75 U	0.75 U	0.75 U	0.72 U	0.73 U	0.77 U	0.77 U	1.8 UB
Butyl benzyl phthalate	ug/l	100	0.63 U	0.63 U	0.63 U	0.6 U	0.61 U	0.64 U	0.64 U	0.63 U
Caprolactam	ug/l	5000	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 UJ
Carbazole	ug/l		0.89 U	0.89 U	0.89 U	0.85 U	0.87 U	0.9 U	0.9 U	0.89 U
Chrysene	ug/l	5	0.7 U	0.7 U	0.7 U	0.67 U	0.68 U	0.71 U	0.71 U	0.7 U
Dibenz(a,h)anthracene	ug/l	0.3	0.023 U	0.023 U	0.023 U	0.022 U	0.022 U	0.023 UJ	0.023 UJ	0.023 U
Dibenzofuran	ug/l		0.89 U	0.89 U	0.89 U	0.85 U	0.87 U	0.9 U	0.9 U	0.89 U
Diethyl phthalate	ug/l	6000	1 U	1 U	1 U	1 U	1 U	1.1 U	1.1 U	1 U
Dimethyl phthalate	ug/l	100	1 U	1 U	1 U	0.98 U	1 U	1 U	1 U	1 U
Di-n-butyl phthalate	ug/l	700	0.85 U	0.85 U	0.85 U	0.82 U	0.84 U	0.87 U	0.87 U	1.7 UB
Di-n-octyl phthalate	ug/l	100	0.72 U	0.72 U	0.72 U	0.69 U	0.7 U	0.73 U	0.73 U	0.72 U
Fluoranthene	ug/l	300	0.75 U	0.75 U	0.75 U	0.72 U	0.73 U	0.77 U	0.77 U	0.75 U
Fluorene	ug/l	300	0.83 U	0.83 U	0.83 U	0.8 U	0.82 U	0.85 U	0.85 U	0.83 U
Hexachlorobenzene	ug/l	0.02	0.0094 U	0.0094 U	0.0094 U	0.009 U	0.0092 U	0.0096 U	0.0096 U	0.0094 UJ
Hexachlorobutadiene	ug/l	1	0.79 U	0.79 U	0.79 U	0.76 U	0.78 U	0.81 U	0.81 U	0.79 UJ
Hexachlorocyclopentadiene	ug/l	40	0.64 U	0.64 U	0.64 U	0.61 U	0.62 U	0.65 U	0.65 U	0.64 UJ
Hexachloroethane	ug/l	7	0.094 U	0.094 U	0.094 U	0.09 U	0.092 U	0.096 U	0.096 U	0.094 U

TABLE 5E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parmameter	Result Unit	NJGWQS ug/l	OB-27	OB-30B	OB-30C	OB-31	OB-32	RW-3	RW-3 DUP	RW-3DS (155-160)
Indeno[1,2,3-cd]pyrene	ug/l	0.2	0.028 U	0.028 U	0.028 U	0.027 U	0.028 U	0.029 U	0.029 U	0.028 U
Isophorone	ug/l	40	0.7 U	0.7 U	0.7 U	0.67 U	0.68 U	0.71 U	0.71 U	0.7 U
Naphthalene	ug/l	300	3.9 J	0.83 U	0.83 U	0.8 U	0.82 U	0.85 U	0.85 U	0.83 U
Nitrobenzene	ug/l	6	0.51 U	0.51 U	0.51 U	0.49 U	0.5 U	0.52 U	0.52 U	0.51 U
N-Nitrosodi-n-propylamine	ug/l	10	0.86 U	0.86 U	0.86 U	0.83 U	0.85 U	0.88 U	0.88 U	0.86 U
N-Nitrosodiphenylamine	ug/l	10	0.77 U	0.77 U	0.77 U	0.74 U	0.76 U	0.79 U	0.79 U	0.77 U
Pentachlorophenol	ug/l	0.3	0.08 U	0.08 U	0.08 U	0.1 J	0.079 U	0.082 U	0.082 U	0.08 UJ
Phenanthrene	ug/l	100	0.68 U	0.68 U	0.68 U	0.65 U	0.66 U	0.69 U	0.69 U	0.68 U
Phenol	ug/l	2000	0.43 U	0.43 U	0.43 U	0.41 U	0.42 U	0.44 U	0.44 U	0.43 U
Pyrene	ug/l	200	0.86 U	0.86 U	0.86 U	0.83 U	0.85 U	0.88 U	0.88 U	0.86 U
Tentatively Identified Compounds (TICs)										
Benzenesulfonamide, N-butyl-	ug/l									
Unknown	ug/l									

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

*Reported 1,4-Dioxane results via Methods 8270 SIM by Alpha Analytical and Method 522 by Pace Analytical, respectively. ForRW-3DD, first two results are via Method 8270 SIM with the second result analyzed outside of holding time. Third result is via Method 522. See report text for additional discussion

[1] Interim Specific Groundwater Quality Criteria

TABLE 5E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parmameter	Result Unit	NJGWQS ug/l	RW-3DD (175-180)	RW-4 (333-343)	RW-4 (393-403)	RW-4A (62-72)	RW-4A (113-123)	RW-5	RW-5A
1,1'-Biphenyl	ug/l	400	0.66 U	0.67 U	0.67 U	0.66 U	0.66 U	0.66 U	0.66 U
1,2,4,5-Tetrachlorobenzene	ug/l		0.45 U	0.46 U	0.46 U	0.45 U	0.45 U	0.45 U	0.45 U
1,4-Dioxane[1]	ug/L	0.4	152/29.2J/20.9*	0.0765 U	0.0798 U	0.0781 U	0.0735 U	10.8	0.0833 U
2,2'-oxybis[1-chloropropane]	ug/l	300	0.97 U	0.99 U	0.99 U	0.97 U	0.97 U	0.97 U	0.97 U
2,3,4,6-Tetrachlorophenol	ug/l	200	0.72 U	0.73 U	0.73 U	0.72 U	0.72 U	0.72 U	0.72 U
2,4,5-Trichlorophenol	ug/l	700	0.51 U	0.52 U	0.52 U	0.51 U	0.51 U	0.51 U	0.51 U
2,4,6-Trichlorophenol	ug/l	20	0.55 U	0.56 U	0.56 U	0.55 U	0.55 U	0.55 U	0.55 U
2,4-Dichlorophenol	ug/l	20	0.66 U	0.67 U	0.67 U	0.66 U	0.66 U	0.66 U	0.66 U
2,4-Dimethylphenol	ug/l	100	0.95 U	0.96 U	0.96 U	0.95 U	0.95 U	0.95 U	0.95 U
2,4-Dinitrophenol	ug/l	40	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ	2.5 UJ	2.5 U	2.5 U
2,4-Dinitrotoluene	ug/l		1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
2,6-Dinitrotoluene	ug/l		0.92 U	0.93 U	0.93 U	0.92 U	0.92 U	0.92 U	0.92 U
2-Chloronaphthalene	ug/l	600	0.64 U	0.65 U	0.65 U	0.64 U	0.64 U	0.64 U	0.64 U
2-Chlorophenol	ug/l	40	0.77 U	0.78 U	0.78 U	0.77 U	0.77 U	0.77 U	0.77 U
2-Methylnaphthalene	ug/l	30	0.92 U	0.93 U	0.93 U	0.92 U	0.92 U	0.92 U	0.92 U
2-Methylphenol	ug/l		1.3 U	1.4 U	1.4 U	1.3 U	1.3 U	1.3 UJ	1.3 UJ
2-Nitroaniline	ug/l		0.68 U	0.69 U	0.69 U	0.68 U	0.68 U	0.68 U	0.68 U
2-Nitrophenol	ug/l		0.61 U	0.63 U	0.63 U	0.61 U	0.61 U	0.61 U	0.61 U
3,3'-Dichlorobenzidine	ug/l	30	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
3-Nitroaniline	ug/l		0.85 U	0.87 U	0.87 U	0.85 U	0.85 U	0.85 U	0.85 U
4,6-Dinitro-2-methylphenol	ug/l	1	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
4-Bromophenyl phenyl ether	ug/l		1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
4-Chloro-3-methylphenol	ug/l	100	0.79 U	0.81 U	0.81 U	0.79 U	0.79 U	0.79 U	0.79 U
4-Chloroaniline	ug/l		0.76 U	0.77 U	0.77 U	0.76 U	0.76 U	0.76 U	0.76 U
4-Chlorophenyl phenyl ether	ug/l		1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methylphenol	ug/l		0.91 U	0.92 U	0.92 U	0.91 U	0.91 U	0.91 U	0.91 U
4-Nitroaniline	ug/l		0.5 U	0.51 U	0.51 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Nitrophenol	ug/l		4.8 U	4.9 U	4.9 U	4.8 U	4.8 U	4.8 U	4.8 U
Acenaphthene	ug/l	400	0.92 U	0.93 U	0.93 U	0.92 U	0.92 U	0.92 U	0.92 U

TABLE 5E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parmameter	Result Unit	NJGWQS ug/l	RW-3DD (175-180)	RW-4 (333-343)	RW-4 (393-403)	RW-4A (62-72)	RW-4A (113-123)	RW-5	RW-5A
Acenaphthylene	ug/l	100	0.68 U	0.69 U	0.69 U	0.68 U	0.68 U	0.68 U	0.68 U
Acetophenone	ug/l	700	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Anthracene	ug/l	2000	0.59 U	0.6 U	0.6 U	0.59 U	0.59 U	0.59 U	0.59 U
Atrazine	ug/l	3	0.8 U	0.82 U	0.82 U	0.8 U	0.8 U	0.8 U	1.5 J
Benzaldehyde	ug/l		0.9 U	0.91 U	0.91 U	0.9 U	0.9 U	0.9 U	0.9 U
Benzo[a]anthracene	ug/l	0.1	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U
Benzo[a]pyrene	ug/l	0.1	0.027 U	0.028 UJ	0.028 UJ	0.027 UJ	0.027 UJ	0.027 U	0.027 U
Benzo[b]fluoranthene	ug/l	0.2	0.013 U	0.013 UJ	0.013 UJ	0.013 UJ	0.013 UJ	0.013 U	0.013 U
Benzo[g,h,i]perylene	ug/l	100	0.78 U	0.79 U	0.79 U	0.78 U	0.78 U	0.78 U	0.78 U
Benzo[k]fluoranthene	ug/l	0.5	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Bis(2-chloroethoxy)methane	ug/l		0.72 U	0.73 U	0.73 U	0.72 U	0.72 U	0.72 U	0.72 U
Bis(2-chloroethyl)ether	ug/l	7	0.0094 U	0.0095 UJ	0.0095 UJ	0.0094 UJ	0.0094 UJ	0.0094 U	0.0094 U
Bis(2-ethylhexyl) phthalate	ug/l	3	0.96 J	0.76 U	0.76 U	0.75 U	0.75 U	2.3	0.75 U
Butyl benzyl phthalate	ug/l	100	0.63 U	0.64 U	0.64 U	0.63 U	0.63 U	0.63 U	0.63 U
Caprolactam	ug/l	5000	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Carbazole	ug/l		0.89 U	0.9 U	0.9 U	0.89 U	0.89 U	0.89 U	0.89 U
Chrysene	ug/l	5	0.7 U	0.71 U	0.71 U	0.7 U	0.7 U	0.7 U	0.7 U
Dibenz(a,h)anthracene	ug/l	0.3	0.023 U	0.023 UJ	0.023 UJ	0.023 UJ	0.023 UJ	0.023 U	0.023 U
Dibenzofuran	ug/l		0.89 U	0.9 U	0.9 U	0.89 U	0.89 U	0.89 U	0.89 U
Diethyl phthalate	ug/l	6000	1 U	1.1 U	1.1 U	1 U	1 U	1 U	1 U
Dimethyl phthalate	ug/l	100	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Di-n-butyl phthalate	ug/l	700	0.85 U	0.87 U	0.87 U	0.85 U	0.85 U	1.5 J	0.85 U
Di-n-octyl phthalate	ug/l	100	0.72 U	0.73 U	0.73 U	0.72 U	0.72 U	0.72 U	0.72 U
Fluoranthene	ug/l	300	0.75 U	0.76 U	0.76 U	0.75 U	0.75 U	0.75 U	0.75 U
Fluorene	ug/l	300	0.83 U	0.85 U	0.85 U	0.83 U	0.83 U	0.83 U	0.83 U
Hexachlorobenzene	ug/l	0.02	0.0094 U	0.0095 U	0.0095 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U
Hexachlorobutadiene	ug/l	1	0.79 U	0.81 U	0.81 U	0.79 U	0.79 U	0.79 U	0.79 U
Hexachlorocyclopentadiene	ug/l	40	0.64 U	0.65 U	0.65 U	0.64 U	0.64 U	0.64 U	0.64 U
Hexachloroethane	ug/l	7	0.094 U	0.095 U	0.095 U	0.094 U	0.094 U	0.094 U	0.094 U

TABLE 5E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parmameter	Result Unit	NJGWQS ug/l	RW-3DD (175-180)	RW-4 (333-343)	RW-4 (393-403)	RW-4A (62-72)	RW-4A (113-123)	RW-5	RW-5A
Indeno[1,2,3-cd]pyrene	ug/l	0.2	0.028 U	0.029 U	0.029 U	0.028 U	0.028 U	0.028 U	0.028 U
Isophorone	ug/l	40	0.7 U	0.71 U	0.71 U	0.7 U	0.7 U	0.7 U	0.7 U
Naphthalene	ug/l	300	0.83 U	0.85 U	0.85 U	0.83 U	0.83 U	0.83 U	0.83 U
Nitrobenzene	ug/l	6	0.51 U	0.52 U	0.52 U	0.51 U	0.51 U	0.51 U	0.51 U
N-Nitrosodi-n-propylamine	ug/l	10	0.86 U	0.88 U	0.88 U	0.86 U	0.86 U	0.86 U	0.86 U
N-Nitrosodiphenylamine	ug/l	10	0.77 U	0.78 U	0.78 U	0.77 U	0.77 U	0.77 U	0.77 U
Pentachlorophenol	ug/l	0.3	0.08 UJ	0.082 U	0.082 U	0.08 U	0.08 U	0.08 U	0.08 U
Phenanthrene	ug/l	100	0.68 U	0.69 U	0.69 U	0.68 U	0.68 U	0.68 U	0.68 U
Phenol	ug/l	2000	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Pyrene	ug/l	200	0.86 U	0.88 U	0.88 U	0.86 U	0.86 U	0.86 U	0.86 U
Tentatively Identified Compounds (TICs)									
Benzenesulfonamide, N-butyl-	ug/l								
Unknown	ug/l								

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

*Reported 1,4-Dioxane results via Methods 8270 SIM by Alpha Analytical and Method 522 by Pace Analytical, respectively. ForRW-3DD, first two results are via Method 8270 SIM with the second result analyzed outside of holding time. Third result is via Method 522. See report text for additional discussion

[1] Interim Specific Groundwater Quality Criteria

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SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parmameter	Result Unit	NJGWQS ug/l	RW-6	RW-6A	RW-7	RW-11S (236-241)	RW-11D (262-267)	RW-13 (71-91)	RW-13 (100-120)	RW-13 (150-170)
1,1'-Biphenyl	ug/l	400	0.67 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.67 U	0.67 U
1,2,4,5-Tetrachlorobenzene	ug/l		0.46 U	0.45 U	0.45 U	0.45 UJ	0.45 UJ	0.45 U	0.46 U	0.46 U
1,4-Dioxane[1]	ug/L	0.4	3.7	3.1	0.0781 U	1.08	73.4/54.5*	0.201	0.0972 J	0.0765 U
2,2'-oxybis[1-chloropropane]	ug/l	300	0.99 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.99 U	0.99 U
2,3,4,6-Tetrachlorophenol	ug/l	200	0.73 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.74 U	0.73 U
2,4,5-Trichlorophenol	ug/l	700	0.52 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U
2,4,6-Trichlorophenol	ug/l	20	0.56 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.57 U	0.56 U
2,4-Dichlorophenol	ug/l	20	0.67 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.67 U	0.67 U
2,4-Dimethylphenol	ug/l	100	0.97 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.97 U	0.97 U
2,4-Dinitrophenol	ug/l	40	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 UJ
2,4-Dinitrotoluene	ug/l		1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
2,6-Dinitrotoluene	ug/l		0.94 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.94 U	0.94 U
2-Chloronaphthalene	ug/l	600	0.65 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.65 U	0.65 U
2-Chlorophenol	ug/l	40	0.79 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.79 U	0.79 U
2-Methylnaphthalene	ug/l	30	0.94 U	1.3 J	0.92 U	0.92 U	0.92 U	0.92 U	0.94 U	0.94 U
2-Methylphenol	ug/l		1.4 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.3 U	1.4 U	1.4 U
2-Nitroaniline	ug/l		0.69 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.69 U	0.69 U
2-Nitrophenol	ug/l		0.63 U	0.61 U	0.62 U	0.61 U	0.61 U	0.61 U	0.63 U	0.63 U
3,3'-Dichlorobenzidine	ug/l	30	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
3-Nitroaniline	ug/l		0.87 U	0.85 U	0.86 U	0.85 U	0.85 U	0.85 U	0.88 U	0.87 U
4,6-Dinitro-2-methylphenol	ug/l	1	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
4-Bromophenyl phenyl ether	ug/l		1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
4-Chloro-3-methylphenol	ug/l	100	0.81 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.81 U	0.81 U
4-Chloroaniline	ug/l		0.78 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.78 U	0.78 U
4-Chlorophenyl phenyl ether	ug/l		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methylphenol	ug/l		0.93 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.93 U	0.93 U
4-Nitroaniline	ug/l		0.51 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.51 U	0.51 U
4-Nitrophenol	ug/l		4.9 U	4.8 U	4.9 U	4.8 U	4.8 U	4.8 U	5 U	4.9 U
Acenaphthene	ug/l	400	0.94 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.94 U	0.94 U

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PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parmameter	Result Unit	NJGWQS ug/l	RW-6	RW-6A	RW-7	RW-11S (236-241)	RW-11D (262-267)	RW-13 (71-91)	RW-13 (100-120)	RW-13 (150-170)
Acenaphthylene	ug/l	100	0.69 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.69 U	0.69 U
Acetophenone	ug/l	700	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Anthracene	ug/l	2000	0.61 U	0.59 U	0.6 U	0.59 U	0.59 U	0.59 U	0.61 U	0.61 U
Atrazine	ug/l	3	0.82 U	1.8 J	0.81 U	0.8 U	0.8 U	0.8 U	0.82 U	0.82 U
Benzaldehyde	ug/l		0.91 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.92 U	0.91 U
Benzo[a]anthracene	ug/l	0.1	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.04 U	0.039 U
Benzo[a]pyrene	ug/l	0.1	0.028 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 UJ	0.028 UJ	0.028 UJ
Benzo[b]fluoranthene	ug/l	0.2	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 UJ	0.013 UJ	0.013 UJ
Benzo[g,h,i]perylene	ug/l	100	0.8 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.8 U	0.8 U
Benzo[k]fluoranthene	ug/l	0.5	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Bis(2-chloroethoxy)methane	ug/l		0.73 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.74 U	0.73 U
Bis(2-chloroethyl)ether	ug/l	7	0.0096 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 UJ	0.0096 UJ	0.0096 UJ
Bis(2-ethylhexyl) phthalate	ug/l	3	0.93 J	0.75 U	0.75 U	2.8 B	1.5 UB	0.75 U	0.77 U	0.77 U
Butyl benzyl phthalate	ug/l	100	0.64 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.64 U	0.64 U
Caprolactam	ug/l	5000	1.1 U	1.1 U	1.1 U	1.1 UJ	1.1 UJ	1.1 U	1.1 U	1.1 U
Carbazole	ug/l		0.9 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.91 U	0.9 U
Chrysene	ug/l	5	0.71 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.72 U	0.71 U
Dibenz(a,h)anthracene	ug/l	0.3	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 UJ	0.024 UJ	0.023 UJ
Dibenzofuran	ug/l		0.9 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.91 U	0.9 U
Diethyl phthalate	ug/l	6000	1.1 U	1 U	1 U	1 U	1 U	1 U	1.1 U	1.1 U
Dimethyl phthalate	ug/l	100	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Di-n-butyl phthalate	ug/l	700	0.87 U	0.85 U	0.86 U	2.4 UB	1.3 UB	0.85 U	0.88 U	0.87 U
Di-n-octyl phthalate	ug/l	100	0.73 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.74 U	0.73 U
Fluoranthene	ug/l	300	0.77 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.77 U	0.77 U
Fluorene	ug/l	300	0.85 U	0.83 U	0.84 U	0.83 U	0.83 U	0.83 U	0.85 U	0.85 U
Hexachlorobenzene	ug/l	0.02	0.0096 U	0.0094 U	0.0094 U	0.0094 UJ	0.0094 UJ	0.0094 U	0.0096 U	0.0096 U
Hexachlorobutadiene	ug/l	1	0.81 U	0.79 U	0.79 U	0.79 UJ	0.79 UJ	0.79 U	0.81 U	0.81 U
Hexachlorocyclopentadiene	ug/l	40	0.65 U	0.64 U	0.64 U	0.64 UJ	0.64 UJ	0.64 U	0.65 U	0.65 U
Hexachloroethane	ug/l	7	0.096 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U	0.096 U	0.096 U

TABLE 5E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parmameter	Result Unit	NJGWQS ug/l	RW-6	RW-6A	RW-7	RW-11S (236-241)	RW-11D (262-267)	RW-13 (71-91)	RW-13 (100-120)	RW-13 (150-170)
Indeno[1,2,3-cd]pyrene	ug/l	0.2	0.029 U	0.028 U	0.028 U	0.028 U	0.028 U	0.028 U	0.029 U	0.029 U
Isophorone	ug/l	40	0.71 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.72 U	0.71 U
Naphthalene	ug/l	300	0.85 U	8.2 J	0.84 U	0.83 U	0.83 U	0.83 U	0.85 U	0.85 U
Nitrobenzene	ug/l	6	0.52 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U
N-Nitrosodi-n-propylamine	ug/l	10	0.88 U	0.86 U	0.87 U	0.86 U	0.86 U	0.86 U	0.89 U	0.88 U
N-Nitrosodiphenylamine	ug/l	10	0.79 U	1.4 J	0.77 U	0.77 U	0.77 U	0.77 U	0.79 U	0.79 U
Pentachlorophenol	ug/l	0.3	0.11 J	0.12 J	0.081 U	0.08 UJ	0.08 UJ	0.08 U	0.082 U	0.082 U
Phenanthrene	ug/l	100	0.69 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.69 U	0.69 U
Phenol	ug/l	2000	0.44 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	4.8 J	0.44 U
Pyrene	ug/l	200	0.88 U	0.86 U	0.87 U	0.86 U	0.86 U	0.86 U	0.89 U	0.88 U
Tentatively Identified Compounds (TICs)										
Benzenesulfonamide, N-butyl-	ug/l									
Unknown	ug/l									

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

*Reported 1,4-Dioxane results via Methods 8270 SIM by Alpha Analytical and Method 522 by Pace Analytical, respectively. ForRW-3DD, first two results are via Method 8270 SIM with the second result analyzed outside of holding time. Third result is via Method 522. See report text for additional discussion

[1] Interim Specific Groundwater Quality Criteria

TABLE 5E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parmameter	Result Unit	NJGWQS ug/l	RW-14S (135-155)	RW-14D (175-185)	RW-15S (110-120)	RW-15D (127-137)	SC-1
1,1'-Biphenyl	ug/l	400	0.63 U	0.63 U	0.67 U	0.66 U	0.66 U
1,2,4,5-Tetrachlorobenzene	ug/l		0.43 U	0.43 U	0.46 U	0.45 U	0.45 U
1,4-Dioxane[1]	ug/L	0.4	0.251	0.973	0.277 B	0.86	0.905
2,2'-oxybis[1-chloropropane]	ug/l	300	0.93 U	0.93 U	0.99 U	0.97 U	0.97 U
2,3,4,6-Tetrachlorophenol	ug/l	200	0.69 U	0.69 U	0.73 U	0.72 U	0.72 U
2,4,5-Trichlorophenol	ug/l	700	0.49 U	0.49 U	0.52 U	0.51 U	0.51 U
2,4,6-Trichlorophenol	ug/l	20	0.53 U	0.53 U	0.56 U	0.55 U	0.55 U
2,4-Dichlorophenol	ug/l	20	0.63 U	0.63 UJ	0.67 U F	0.66 U	0.66 U
2,4-Dimethylphenol	ug/l	100	0.91 U	0.91 UJ	0.96 U	0.95 U	0.95 U
2,4-Dinitrophenol	ug/l	40	2.4 U	2.4 U	2.5 UJ	2.5 UJ	2.5 U
2,4-Dinitrotoluene	ug/l		1 U	1 U F	1.1 U	1.1 U	1.1 U
2,6-Dinitrotoluene	ug/l		0.88 U	0.88 U	0.93 U	0.92 U	0.92 U
2-Chloronaphthalene	ug/l	600	0.61 U	0.61 U	0.65 U	0.64 U	0.64 U
2-Chlorophenol	ug/l	40	0.74 U	0.74 U F	0.78 U	0.77 U	0.77 U
2-Methylnaphthalene	ug/l	30	0.88 UJ	0.88 UJ	0.93 U	0.92 U	0.92 U
2-Methylphenol	ug/l		1.3 UJ	1.3 UJ	1.4 U	1.3 U	1.3 U
2-Nitroaniline	ug/l		0.65 U	0.65 U	0.69 U	0.68 U	0.68 U
2-Nitrophenol	ug/l		0.59 U	0.59 UJ	0.63 UJ	0.61 U	0.61 U
3,3'-Dichlorobenzidine	ug/l	30	1 U	1 U F	1.1 U	1.1 U	1.1 U
3-Nitroaniline	ug/l		0.82 U	0.82 U	0.87 U	0.85 U	0.85 U
4,6-Dinitro-2-methylphenol	ug/l	1	2 U	2 U	2.1 U	2.1 U	2.1 U
4-Bromophenyl phenyl ether	ug/l		1 U	1 UJ	1.1 U	1.1 U	1.1 U
4-Chloro-3-methylphenol	ug/l	100	0.76 U	0.76 U	0.81 U	0.79 U	0.79 U
4-Chloroaniline	ug/l		0.73 U	0.73 U	0.77 U	0.76 U	0.76 U
4-Chlorophenyl phenyl ether	ug/l		0.96 U	0.96 U	1 U	1 U	1 U
4-Methylphenol	ug/l		0.87 U	0.87 U	0.92 U	0.91 U	0.91 U
4-Nitroaniline	ug/l		0.48 U	0.48 U	0.51 U	0.5 U	0.5 U
4-Nitrophenol	ug/l		4.7 U	4.7 U	4.9 U F	4.8 U	4.8 U
Acenaphthene	ug/l	400	0.88 U	0.88 U	0.93 U	0.92 U	0.92 U

TABLE 5E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parmameter	Result Unit	NJGWQS ug/l	RW-14S (135-155)	RW-14D (175-185)	RW-15S (110-120)	RW-15D (127-137)	SC-1
Acenaphthylene	ug/l	100	0.65 U	0.65 U	0.69 U	0.68 U	0.68 U
Acetophenone	ug/l	700	1 U	1 U	1.1 U	1.1 U	1.1 U
Anthracene	ug/l	2000	0.57 U	0.57 UJ	0.6 U	0.59 U	0.59 U
Atrazine	ug/l	3	0.77 U	0.77 UJ	0.82 U	0.8 U	0.8 U
Benzaldehyde	ug/l		0.86 U	0.86 U	0.91 U	0.9 U	0.9 U
Benzo[a]anthracene	ug/l	0.1	0.037 U	0.037 U	0.039 U	0.039 U	0.039 UJ
Benzo[a]pyrene	ug/l	0.1	0.026 U	0.026 U	0.028 UJ	0.027 UJ	0.027 UJ
Benzo[b]fluoranthene	ug/l	0.2	0.012 U	0.012 U	0.013 UJ	0.013 UJ	0.013 UJ
Benzo[g,h,i]perylene	ug/l	100	0.75 U	0.75 U	0.79 U	0.78 U	0.78 U
Benzo[k]fluoranthene	ug/l	0.5	0.18 U	0.18 U	0.19 U F	0.19 U	0.19 U
Bis(2-chloroethoxy)methane	ug/l		0.69 U	0.69 U F	0.73 U	0.72 U	0.72 U
Bis(2-chloroethyl)ether	ug/l	7	0.009 U	0.009 U	0.0095 UJ	0.0094 UJ	0.0094 U
Bis(2-ethylhexyl) phthalate	ug/l	3	0.72 U	0.72 U	0.95 J	0.75 U	1.2 J
Butyl benzyl phthalate	ug/l	100	0.6 U	0.6 U	0.64 U	0.63 U	0.63 U
Caprolactam	ug/l	5000	1.1 UJ	1.1 UJ	1.1 U	1.1 U	1.1 U
Carbazole	ug/l		0.85 U	0.85 UJ	0.9 U	0.89 U	0.89 U
Chrysene	ug/l	5	0.67 U	0.67 U	0.71 U	0.7 U	0.7 U
Dibenz(a,h)anthracene	ug/l	0.3	0.022 U	0.022 U	0.023 UJ	0.023 UJ	0.023 UJ
Dibenzofuran	ug/l		0.85 U	0.85 U	0.9 U	0.89 U	0.89 U
Diethyl phthalate	ug/l	6000	1 U	1 U	1.1 U	1 U	1 U
Dimethyl phthalate	ug/l	100	0.98 U	0.98 U	1 U	1 U	1 U
Di-n-butyl phthalate	ug/l	700	0.82 U	0.82 UJ	0.87 U	0.85 U	0.89 J
Di-n-octyl phthalate	ug/l	100	0.69 U	0.69 U	0.73 U	0.72 U	0.72 U
Fluoranthene	ug/l	300	0.72 U	0.72 UJ	0.76 U	0.75 U	0.75 U
Fluorene	ug/l	300	0.8 U	0.8 U	0.85 U	0.83 U	0.83 U
Hexachlorobenzene	ug/l	0.02	0.009 U	0.009 U	0.0095 U	0.0094 U	0.0094 UJ
Hexachlorobutadiene	ug/l	1	0.76 UJ	0.76 UJ	0.81 U	0.79 U	0.79 U
Hexachlorocyclopentadiene	ug/l	40	0.61 U	0.61 U	0.65 U	0.64 U	0.64 U
Hexachloroethane	ug/l	7	0.09 U	0.09 U	0.095 U	0.094 U	0.094 U

TABLE 5E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parmameter	Result Unit	NJGWQS ug/l	RW-14S (135-155)	RW-14D (175-185)	RW-15S (110-120)	RW-15D (127-137)	SC-1
Indeno[1,2,3-cd]pyrene	ug/l	0.2	0.027 U	0.027 U	0.029 U	0.028 U	0.028 UJ
Isophorone	ug/l	40	0.67 U	0.67 UJ	0.71 U	0.7 U	0.7 U
Naphthalene	ug/l	300	0.8 UJ	0.8 UJ	0.85 U	0.83 U	5.9 J
Nitrobenzene	ug/l	6	0.49 U	0.49 U	0.52 U	0.51 U	0.51 U
N-Nitrosodi-n-propylamine	ug/l	10	0.83 U	0.83 U	0.88 U	0.86 U	0.86 U
N-Nitrosodiphenylamine	ug/l	10	0.74 U	0.74 UJ	0.78 U	0.77 U	1.1 J
Pentachlorophenol	ug/l	0.3	0.077 U	0.077 U	0.082 U	0.08 U	0.11 J
Phenanthrene	ug/l	100	0.65 U	0.65 U	0.69 U	0.68 U	0.68 U
Phenol	ug/l	2000	0.41 U	0.41 U	0.43 U	0.43 U	0.43 U
Pyrene	ug/l	200	0.83 U	0.83 U	0.88 U	0.86 U	0.86 U
Tentatively Identified Compounds (TICs)							
Benzenesulfonamide, N-butyl-	ug/l		790 NJ	1500 NJ			
Unknown	ug/l		9.5 NJ	8.3 NJ			

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

*Reported 1,4-Dioxane results via Methods 8270 SIM by Alpha Analytical and Method 522 by Pace Analytical, respectively. ForRW-3DD, first two results are via Method 8270 SIM with the second result analyzed outside of holding time. Third result is via Method 522. See report text for additional discussion

[1] Interim Specific Groundwater Quality Criteria

TABLE 5F
SUMMARY OF POLYCHLORINATED BIPHENYLS (PCBs) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-11R	OB-15B	OB-19	OB-20A	OB-20B	OB-21	OB-21 DUP	OB-25
PCB-1016	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1221	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1232	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1242	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1248	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1254	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1260	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1262	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1268	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
Polychlorinated biphenyls, Total	ug/l	0.5	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U

Parameter	Result Unit	OB-27	OB-30B	OB-30C	OB-31	OB-32	RW-3	RW-3 DUP	RW-3DS (155-160)	RW-3DD (175-180)
PCB-1016	ug/l	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.11 U	0.098 U	0.098 U	0.098 U
PCB-1221	ug/l	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.11 U	0.098 U	0.098 U	0.098 U
PCB-1232	ug/l	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.11 U	0.098 U	0.098 U	0.098 U
PCB-1242	ug/l	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.11 U	0.098 U	0.098 U	0.098 U
PCB-1248	ug/l	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.11 U	0.098 U	0.098 U	0.098 U
PCB-1254	ug/l	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.091 U	0.084 U	0.084 U	0.084 U
PCB-1260	ug/l	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.091 U	0.084 U	0.084 U	0.084 U
PCB-1262	ug/l	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.091 U	0.084 U	0.084 U	0.084 U
PCB-1268	ug/l	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.091 U	0.084 U	0.084 U	0.084 U
Polychlorinated biphenyls, Total	ug/l	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.11 U	0.098 U	0.098 U	0.098 U

TABLE 5F
SUMMARY OF POLYCHLORINATED BIPHENYLS (PCBs) IN GROUNDWATER
PETERS MINE PIT (PMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	RW-4 (333-343)	RW-4 (393-403)	RW-4A (62-72)	RW-4A (113-123)	RW-5	RW-5A	RW-6	RW-6A	RW-7
PCB-1016	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1221	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1232	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1242	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1248	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1254	ug/l	0.088 U	0.086 U	0.086 U	0.086 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1260	ug/l	0.088 U	0.086 U	0.086 U	0.086 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1262	ug/l	0.088 U	0.086 U	0.086 U	0.086 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1268	ug/l	0.088 U	0.086 U	0.086 U	0.086 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
Polychlorinated biphenyls, Total	ug/l	0.1 U	0.1 U	0.1 U	0.1 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U

Parameter	Result Unit	RW-11S (236-241)	RW-11D (262-267)	RW-13 (71-91)	RW-13 (100-120)	RW-13 (150-170)	RW-14S (135-155)	RW-14D (175-185)	RW-15S (110-120)	RW-15D (127-137)	SC-1
PCB-1016	ug/l	0.098 U	0.098 U	0.1 U	0.1 U	0.1 U	0.098 U	0.098 U F	0.1 U	0.1 U	0.098 U
PCB-1221	ug/l	0.098 U	0.098 U	0.1 U	0.1 U	0.1 U	0.098 U	0.098 U	0.1 U	0.1 U	0.098 U
PCB-1232	ug/l	0.098 U	0.098 U	0.1 U	0.1 U	0.1 U	0.098 U	0.098 U	0.1 U	0.1 U	0.098 U
PCB-1242	ug/l	0.098 U	0.098 U	0.1 U	0.1 U	0.1 U	0.098 U	0.098 U	0.1 U	0.1 U	0.098 U
PCB-1248	ug/l	0.098 U	0.098 U	0.1 U	0.1 U	0.1 U	0.098 U	0.098 U	0.1 U	0.1 U	0.098 U
PCB-1254	ug/l	0.084 U	0.084 U	0.086 U	0.086 U	0.086 U	0.084 U	0.084 U	0.089 U	0.088 U	0.084 U
PCB-1260	ug/l	0.084 U	0.084 U	0.086 U	0.086 U	0.086 U	0.084 U	0.084 U F	0.089 U	0.088 U	0.084 U
PCB-1262	ug/l	0.084 U	0.084 U	0.086 U	0.086 U	0.086 U	0.084 U	0.084 U	0.089 U	0.088 U	0.084 U
PCB-1268	ug/l	0.084 U	0.084 U	0.086 U	0.086 U	0.086 U	0.084 U	0.084 U	0.089 U	0.088 U	0.084 U
Polychlorinated biphenyls, Total	ug/l	0.098 U	0.098 U	0.1 U	0.1 U	0.1 U	0.098 U	0.098 U	0.1 U	0.1 U	0.098 U

See Table 12 for validation qualifiers.
Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 6A
SUMMARY OF DETECTED ORGANIC COMPOUNDS IN GROUNDWATER
O'CONNOR DISPOSAL AREA (OCDA)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

VOC Parameter	Result Unit	NJGWQS ug/l	OB-14B
1,1-Dichloroethane	ug/l	50	
Methyl tert-butyl ether	ug/l		0.27 J
VOC Tentatively Identified Compounds (TICs)			
None			

SVOC Parameter	Result Unit	NJGWQS ug/l	OB-14B	OB-17	OB-24	OB-33	RW-16
1,4-Dioxane[1]	ug/L	0.4	0.28	17.5			
Atrazine	ug/l	3					0.91 J
Bis(2-ethylhexyl) phthalate	ug/l	3				0.84 J	
Hexachlorobenzene	ug/l	0.02			0.011 J		
SVOC Tentatively Identified Compounds (TICs)							
None							
PCBs							
None							

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Specific Groundwater Quality Criteria

TABLE 6B
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
O'CONNOR DISPOSAL AREA (OCDA)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	OB-14A	OB-14B	OB-16	OB-17	OB-18	OB-18 DUP	OB-24	OB-28	OB-33	RW-16
Aluminum	mg/L	0.2	0.0277 J	0.0177 J	0.0135 U	0.0135 U	0.0254 J	0.0246 J	0.0409	1.19	0.317	0.0827
Aluminum Dissolved	mg/L	0.2	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U
Antimony	mg/L	0.006	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U
Antimony Dissolved	mg/L	0.006	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U
Arsenic	mg/L	0.003	0.001 J	0.00079 J	0.0079	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U
Arsenic Dissolved	mg/L	0.003	0.00071 U	0.00089 J	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U
Barium	mg/L	6	0.532	0.0438	0.115	0.0114	0.0068	0.0067	0.0356	0.0847	0.0246	0.0383
Barium Dissolved	mg/L	6	0.324	0.0411	0.0772	0.0105	0.007	0.0066	0.0335	0.0745	0.0173	0.039
Beryllium	mg/L	0.001	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U
Beryllium Dissolved	mg/L	0.001	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U
Cadmium	mg/L	0.004	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U
Cadmium Dissolved	mg/L	0.004	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U
Calcium	mg/L		141	101	143	92	39.5	39.4	95.7	140	12.6	62.1
Calcium Dissolved	mg/L		122	101	139	92	38	38.1	94.6	139	13	66.5
Chromium	mg/L	0.07	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0019 J	0.0015 U	0.0015 U
Chromium Dissolved	mg/L	0.07	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Cobalt	mg/L	0.1	0.0015 U	0.0015 U	0.0018 J	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0023 J	0.0024 J	0.0015 U
Cobalt Dissolved	mg/L	0.1	0.0015 U	0.0015 U	0.0015 J	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0018 J	0.0015 U
Copper	mg/L	1.3	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.005	0.0016 U	0.0037 J
Copper Dissolved	mg/L	1.3	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.002 J	0.0016 U
Cyanide, Total	mg/L	0.1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Iron	mg/L	0.3	41.8	0.593	18	1.34	0.0491 U	0.0491 U	0.0862 J	2.16	0.446	0.956
Iron Dissolved	mg/L	0.3	2.98	0.0491 U	0.0491 U	0.0491 U	0.0491 U	0.0491 U	0.0491 U	0.0491 U	0.0491 U	0.0491 U
Lead	mg/L	0.005	0.00056 J	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00079 J	0.00044 U	0.00044 U
Lead Dissolved	mg/L	0.005	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U
Magnesium	mg/L		13.8	31.4	20.4	32.2	8.86	8.74	26.2	32.7	5.88	21
Magnesium Dissolved	mg/L		10.6	29.4	18.8	30.7	7.86	7.82	24.1	30.2	5.03	21
Manganese	mg/L	0.05	1.59	1.77	3.69	0.327	0.003 U	0.003 U	0.486	4.14	0.0407	0.0053 J
Manganese Dissolved	mg/L	0.05	1.29	1.61	3.11	0.309	0.003 U	0.003 U	0.04	3.47	0.0183	0.0038 J
Mercury	mg/L	0.002	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Mercury Dissolved	mg/L	0.002	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Nickel	mg/L	0.1	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0035 J	0.0016 U	0.0016 U
Nickel Dissolved	mg/L	0.1	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U

TABLE 6B
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
O'CONNOR DISPOSAL AREA (OCDA)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	OB-14A	OB-14B	OB-16	OB-17	OB-18	OB-18 DUP	OB-24	OB-28	OB-33	RW-16
Potassium	mg/L		6.93	3.05	10.8	1.91	0.4	0.399	2.25	4.43	1.03	1.94
Potassium Dissolved	mg/L		6	3.05	10.7	2.1	0.374	0.384	2.26	4.2	0.96	2.07
Selenium	mg/L	0.04	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U
Selenium Dissolved	mg/L	0.04	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U
Silver	mg/L	0.04	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Silver Dissolved	mg/L	0.04	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Sodium	mg/L	50	22.7	21.8	42.2	16.2	6.01	5.99	17.8	26.8	5.69	19.3
Sodium Dissolved	mg/L	50	18.2	19.9	37.3	15.1	5	4.96	16.5	24.3	5.78	19
Thallium	mg/L	0.002	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U
Thallium Dissolved	mg/L	0.002	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U
Vanadium	mg/L		0.0015 J	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0025 J	0.002 J	0.0016 J
Vanadium Dissolved	mg/L		0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U
Zinc	mg/L	2	0.0073 J	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0066 J
Zinc Dissolved	mg/L	2	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U
Wet Chemistry												
Alkalinity	mg/l		391	339	425	333	132	124	226	385	44.2	220
Bicarbonate Alkalinity as CaCO3	mg/l		391	339	425	333	132	124	226	385	44.2	220
Chloride	mg/l	250	2.33 D	50.6 D	69.1 D	12.9 F D	1.61 D	1.62 D	88.2 D	102 D	1.64	55.6 D
Sulfate	mg/l	250	0.99	14.3	4.61	41.9 J	9.98	10	52.7 D	21.8	12.6	13.1

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 6C
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
O'CONNOR DISPOSAL AREA (OCDA)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-14A	OB-14B	OB-16	OB-17	OB-18	OB-18 DUP	OB-24	OB-28	OB-33	RW-16
1,1,1-Trichloroethane	ug/l	30	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	1	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l		0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	3	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l	50	0.24 U	0.24 U	0.24 U	0.7 J	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1-Dichloroethene	ug/l	1	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l		0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l	0.03	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	ug/l	9	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l	0.02	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
1,2-Dichlorobenzene	ug/l	600	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloroethane	ug/l	2	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	ug/l	1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	600	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	ug/l	75	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone (MEK)	ug/l	300	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
2-Hexanone	ug/l	300	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l		0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l	6000	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Benzene	ug/l	1	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
Bromoform	ug/l	4	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 UJ	0.18 U
Bromomethane	ug/l	10	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l	700	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Carbon tetrachloride	ug/l	1	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chlorobromomethane	ug/l		0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U

TABLE 6C
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
O'CONNOR DISPOSAL AREA (OCDA)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-14A	OB-14B	OB-16	OB-17	OB-18	OB-18 DUP	OB-24	OB-28	OB-33	RW-16
Chlorodibromomethane	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane[1]	ug/l	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U
Chloroform	ug/l	70	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloromethane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l	70	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,3-Dichloropropene	ug/l		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l		0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Dichlorobromomethane	ug/l	1	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l	1000	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Ethylbenzene	ug/l	700	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Ethylene Dibromide	ug/l	0.03	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l	700	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Methyl acetate	ug/l	7000	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l		0.13 U	0.27 J	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Methylene Chloride	ug/l	3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Styrene	ug/l	100	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	1	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	ug/l	600	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-Dichloroethene	ug/l	100	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l		0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	ug/l	2000	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Vinyl chloride	ug/l	1	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Xylenes, Total	ug/l	1000	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Tentatively Identified Compounds (TICs)												
None												

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Generic Groundwater Quality Criteria

TABLE 6D
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
O'CONNOR DISPOSAL AREA (OCDA)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-14A	OB-14B	OB-16	OB-17	OB-18	OB-18 DUP	OB-24	OB-28	OB-33	RW-16
1,1'-Biphenyl	ug/l	400	0.66 U	0.66 U	0.66 U	0.66 U	0.67 U	0.66 U	0.66 U	0.67 U	0.67 U	0.66 U
1,2,4,5-Tetrachlorobenzene	ug/l		0.45 U	0.45 U	0.45 U	0.45 U	0.46 U	0.45 U	0.45 U	0.46 U	0.46 U	0.45 U
1,4-Dioxane[1]	ug/L	0.4	0.0833 U	0.28	0.0781 U	17.5	0.0798 U	0.0798 U	0.075 U	0.0833 U	0.0765 U	0.075 U
2,2'-oxybis[1-chloropropane]	ug/l	300	0.97 U	0.97 U	0.97 U	0.97 U	0.99 U	0.97 U	0.97 U	0.99 U	0.99 U	0.97 U
2,3,4,6-Tetrachlorophenol	ug/l	200	0.72 U	0.72 U	0.72 U	0.72 U	0.73 U	0.72 U	0.72 U	0.73 U	0.73 U	0.72 U
2,4,5-Trichlorophenol	ug/l	700	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.51 U	0.51 U	0.52 U	0.52 U	0.51 U
2,4,6-Trichlorophenol	ug/l	20	0.55 U	0.55 U	0.55 U	0.55 U	0.56 U	0.55 U	0.55 U	0.56 U	0.56 U	0.55 U
2,4-Dichlorophenol	ug/l	20	0.66 U	0.66 U	0.66 U	0.66 U	0.67 U	0.66 U	0.66 U	0.67 U	0.67 U	0.66 U
2,4-Dimethylphenol	ug/l	100	0.95 U	0.95 U	0.95 U	0.95 U	0.97 U	0.95 U	0.95 U	0.97 U	0.97 U	0.95 U
2,4-Dinitrophenol	ug/l	40	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2,4-Dinitrotoluene	ug/l		1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
2,6-Dinitrotoluene	ug/l		0.92 U	0.92 U	0.92 U	0.92 U	0.94 U	0.92 U	0.92 U	0.94 U	0.94 U	0.92 U
2-Chloronaphthalene	ug/l	600	0.64 U	0.64 U	0.64 U	0.64 U	0.65 U	0.64 U	0.64 U	0.65 U	0.65 U	0.64 U
2-Chlorophenol	ug/l	40	0.77 U	0.77 U	0.77 U	0.77 U	0.79 U	0.77 U	0.77 U	0.79 U	0.79 U	0.77 U
2-Methylnaphthalene	ug/l	30	0.92 U	0.92 U	0.92 U	0.92 U	0.94 U	0.92 U	0.92 U	0.94 U	0.94 U	0.92 U
2-Methylphenol	ug/l		1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.4 UJ	1.3 UJ	1.3 UJ	1.4 UJ	1.4 U	1.3 UJ
2-Nitroaniline	ug/l		0.68 U	0.68 U	0.68 U	0.68 U	0.69 U	0.68 U	0.68 U	0.69 U	0.69 U	0.68 U
2-Nitrophenol	ug/l		0.61 U	0.61 U	0.61 U	0.61 U	0.63 U	0.61 U	0.61 U	0.63 U	0.63 U	0.61 U
3,3'-Dichlorobenzidine	ug/l	30	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
3-Nitroaniline	ug/l		0.85 U	0.85 U	0.85 U	0.85 U	0.87 U	0.85 U	0.85 U	0.87 U	0.87 U	0.85 U
4,6-Dinitro-2-methylphenol	ug/l	1	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
4-Bromophenyl phenyl ether	ug/l		1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
4-Chloro-3-methylphenol	ug/l	100	0.79 U	0.79 U	0.79 U	0.79 U	0.81 U	0.79 U	0.79 U	0.81 U	0.81 U	0.79 U
4-Chloroaniline	ug/l		0.76 U	0.76 U	0.76 U	0.76 U	0.78 U	0.76 U	0.76 U	0.78 U	0.78 U	0.76 U
4-Chlorophenyl phenyl ether	ug/l		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methylphenol	ug/l		0.91 U	0.91 U	0.91 U	0.91 U	0.93 U	0.91 U	0.91 U	0.93 U	0.93 U	0.91 U
4-Nitroaniline	ug/l		0.5 U	0.5 U	0.5 U	0.5 U	0.51 U	0.5 U	0.5 U	0.51 U	0.51 U	0.5 U

TABLE 6D
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
O'CONNOR DISPOSAL AREA (OCDA)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-14A	OB-14B	OB-16	OB-17	OB-18	OB-18 DUP	OB-24	OB-28	OB-33	RW-16
4-Nitrophenol	ug/l		4.8 U	4.8 U	4.8 U	4.8 U	4.9 U	4.8 U	4.8 U	4.9 U	4.9 U	4.8 U
Acenaphthene	ug/l	400	0.92 U	0.92 U	0.92 U	0.92 U	0.94 U	0.92 U	0.92 U	0.94 U	0.94 U	0.92 U
Acenaphthylene	ug/l	100	0.68 U	0.68 U	0.68 U	0.68 U	0.69 U	0.68 U	0.68 U	0.69 U	0.69 U	0.68 U
Acetophenone	ug/l	700	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Anthracene	ug/l	2000	0.59 U	0.59 U	0.59 U	0.59 U	0.61 U	0.59 U	0.59 U	0.61 U	0.61 U	0.59 U
Atrazine	ug/l	3	0.8 U	0.8 U	0.8 U	0.8 U	0.82 U	0.8 U	0.8 U	0.82 U	0.82 U	0.91 J
Benzaldehyde	ug/l		0.9 U	0.9 U	0.9 U	0.9 U	0.91 U	0.9 U	0.9 U	0.91 U	0.91 U	0.9 U
Benzo[a]anthracene	ug/l	0.1	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U
Benzo[a]pyrene	ug/l	0.1	0.027 U	0.027 U	0.027 U	0.027 U	0.028 U	0.027 U	0.027 U	0.028 U	0.028 U	0.027 U
Benzo[b]fluoranthene	ug/l	0.2	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
Benzo[g,h,i]perylene	ug/l	100	0.78 U	0.78 U	0.78 U	0.78 U	0.8 U	0.78 U	0.78 U	0.8 U	0.8 U	0.78 U
Benzo[k]fluoranthene	ug/l	0.5	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Bis(2-chloroethoxy)methane	ug/l		0.72 U	0.72 U	0.72 U	0.72 U	0.73 U	0.72 U	0.72 U	0.73 U	0.73 U	0.72 U
Bis(2-chloroethyl)ether	ug/l	7	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0096 U	0.0094 U	0.0094 U	0.0096 U	0.0096 U	0.0094 U
Bis(2-ethylhexyl) phthalate	ug/l	3	0.75 U	0.75 U	0.75 U	0.75 U	0.77 U	0.75 U	0.75 U	0.77 U	0.84 J	0.75 U
Butyl benzyl phthalate	ug/l	100	0.63 U	0.63 U	0.63 U	0.63 U	0.64 U	0.63 U	0.63 U	0.64 U	0.64 U	0.63 U
Caprolactam	ug/l	5000	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Carbazole	ug/l		0.89 U	0.89 U	0.89 U	0.89 U	0.9 U	0.89 U	0.89 U	0.9 U	0.9 U	0.89 U
Chrysene	ug/l	5	0.7 U	0.7 U	0.7 U	0.7 U	0.71 U	0.7 U	0.7 U	0.71 U	0.71 U	0.7 U
Dibenz(a,h)anthracene	ug/l	0.3	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U
Dibenzofuran	ug/l		0.89 U	0.89 U	0.89 U	0.89 U	0.9 U	0.89 U	0.89 U	0.9 U	0.9 U	0.89 U
Diethyl phthalate	ug/l	6000	1 U	1 U	1 U	1 U	1.1 U	1 U	1 U	1.1 U	1.1 U	1 U
Dimethyl phthalate	ug/l	100	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Di-n-butyl phthalate	ug/l	700	0.85 U	0.85 U	0.85 U	0.85 U	0.87 U	0.85 U	0.85 U	0.87 U	0.87 U	0.85 U
Di-n-octyl phthalate	ug/l	100	0.72 U	0.72 U	0.72 U	0.72 U	0.73 U	0.72 U	0.72 U	0.73 U	0.73 U	0.72 U
Fluoranthene	ug/l	300	0.75 U	0.75 U	0.75 U	0.75 U	0.77 U	0.75 U	0.75 U	0.77 U	0.77 U	0.75 U
Fluorene	ug/l	300	0.83 U	0.83 U	0.83 U	0.83 U	0.85 U	0.83 U	0.83 U	0.85 U	0.85 U	0.83 U

TABLE 6D
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
O'CONNOR DISPOSAL AREA (OCDA)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-14A	OB-14B	OB-16	OB-17	OB-18	OB-18 DUP	OB-24	OB-28	OB-33	RW-16
Hexachlorobenzene	ug/l	0.02	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0096 U	0.0094 U	0.011 J	0.0096 U	0.0096 U	0.0094 U
Hexachlorobutadiene	ug/l	1	0.79 U	0.79 U	0.79 U	0.79 U	0.81 U	0.79 U	0.79 U	0.81 U	0.81 U	0.79 U
Hexachlorocyclopentadiene	ug/l	40	0.64 U	0.64 U	0.64 U	0.64 U	0.65 U	0.64 U	0.64 U	0.65 U	0.65 U	0.64 U
Hexachloroethane	ug/l	7	0.094 U	0.094 U	0.094 U	0.094 U	0.096 U	0.094 U	0.094 U	0.096 U	0.096 U	0.094 U
Indeno[1,2,3-cd]pyrene	ug/l	0.2	0.028 U	0.028 U	0.028 U	0.028 U	0.029 U	0.028 U	0.028 U	0.029 U	0.029 U	0.028 U
Isophorone	ug/l	40	0.7 U	0.7 U	0.7 U	0.7 U	0.71 U	0.7 U	0.7 U	0.71 U	0.71 U	0.7 U
Naphthalene	ug/l	300	0.83 U	0.83 U	0.83 U	0.83 U	0.85 U	0.83 U	0.83 U	0.85 U	0.85 U	0.83 U
Nitrobenzene	ug/l	6	0.51 U	0.51 U	0.51 U	0.51 U	0.52 U	0.51 U	0.51 U	0.52 U	0.52 U	0.51 U
N-Nitrosodi-n-propylamine	ug/l	10	0.86 U	0.86 U	0.86 U	0.86 U	0.88 U	0.86 U	0.86 U	0.88 U	0.88 U	0.86 U
N-Nitrosodiphenylamine	ug/l	10	0.77 U	0.77 U	0.77 U	0.77 U	0.79 U	0.77 U	0.77 U	0.79 U	0.79 U	0.77 U
Pentachlorophenol	ug/l	0.3	0.08 U	0.08 U	0.08 U	0.08 U	0.082 U	0.08 U	0.08 U	0.082 U	0.082 U	0.08 U
Phenanthrene	ug/l	100	0.68 U	0.68 U	0.68 U	0.68 U	0.69 U	0.68 U	0.68 U	0.69 U	0.69 U	0.68 U
Phenol	ug/l	2000	0.43 U	0.43 U	0.43 U	0.43 U	0.44 U	0.43 U	0.43 U	0.44 U	0.44 U	0.43 U
Pyrene	ug/l	200	0.86 U	0.86 U	0.86 U	0.86 U	0.88 U	0.86 U	0.86 U	0.88 U	0.88 U	0.86 U
Tentatively Identified Compounds (TICs)												
None												

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Specific Groundwater Quality Criteria

TABLE 6E
SUMMARY OF POLYCHLORINATED BIPHENYLS (PCBs) IN GROUNDWATER
O'CONNOR DISPOSAL AREA (OCDA)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-14A	OB-14B	OB-16	OB-17	OB-18	OB-18 DUP	OB-24	OB-28	OB-33	RW-16
PCB-1016	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1221	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1232	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1242	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1248	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1254	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1260	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1262	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1268	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
Polychlorinated biphenyls, Total	ug/l	0.5	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U

See Table 12 for validation qualifiers.
Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 7A
SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-03	OB-05	RW-2 (279-289)	RW-2 (452-462)	RW-8 (163-173)	RW-8 (204-214)	RW-9 (206-216)	RW-9A (85-95)	RW-10 (120-130)
1,2-Dichlorobenzene	ug/l	600			0.39 J						
1,3-Dichlorobenzene	ug/l	600			0.77 J						
1,4-Dichlorobenzene	ug/l	75			1.5						
2-Butanone (MEK)	ug/l	300						13			4.7 J
2-Hexanone	ug/l	300									0.75 J
Acetone	ug/l	6000	19		13 B	16 B	6.5 B	8.8 B	5.1 B	6.7 B	48 B
Benzene	ug/l	1			0.34 J	0.2 J	0.35 J	3.8	0.15 J		
Carbon disulfide	ug/l	700				0.7 J		1.6			0.53 J
Chlorobenzene	ug/l	50			12						
Chloromethane	ug/l					0.32 J		0.49 J			
Methyl tert-butyl ether	ug/l			0.17 J	0.25 J	0.32 J					
Methylene Chloride	ug/l	3									
Tetrachloroethene	ug/l	1									
Toluene	ug/l	600			0.42 J	0.69 J					
Vinyl chloride	ug/l	1				0.2 J		0.24 J			
Tentatively Identified Compounds (TICs)											
Sulfur dioxide	ug/l										27 NJ

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 7A
SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-10 (185-195)	RW-10 (185-195) DUP	RW-10A (51-61)	RW-10A (75-85)	SC-2
1,2-Dichlorobenzene	ug/l	600					
1,3-Dichlorobenzene	ug/l	600					
1,4-Dichlorobenzene	ug/l	75					
2-Butanone (MEK)	ug/l	300					
2-Hexanone	ug/l	300					
Acetone	ug/l	6000	20 B	20 B	5 B	7 B	9.2
Benzene	ug/l	1					
Carbon disulfide	ug/l	700	0.62 J	0.74 J			
Chlorobenzene	ug/l	50					
Chloromethane	ug/l						
Methyl tert-butyl ether	ug/l						
Methylene Chloride	ug/l	3					0.22 UB
Tetrachloroethene	ug/l	1					0.15 J
Toluene	ug/l	600					
Vinyl chloride	ug/l	1					
Tentatively Identified Compounds (TICs)							
Sulfur dioxide	ug/l						

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 201

TABLE 7B
SUMMARY OF DETECTED SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) AND PCBs IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-03	OB-04	OB-05	OB-06	OB-07	OB-13	RW-2 (279-289)	RW-2 (452-462)
1,4-Dioxane[1]	ug/L	0.4		0.079 J	0.165		0.146 J		11.9	0.901
Atrazine	ug/l	3						1.4 J		
Bis(2-chloroethyl)ether	ug/l	7							0.033	
Bis(2-ethylhexyl) phthalate	ug/l	3							1.9 J	1.5 J
Di-n-butyl phthalate	ug/l	700								1.5 UB
Isophorone	ug/l	40								
Pentachlorophenol	ug/l	0.3	0.1 J	0.1 J	0.11 J	0.1 J	0.1 J			
Phenol	ug/l	2000								11
Tentatively Identified Compounds (TICs)										
Benzenesulfonamide, N-butyl-	ug/l									
Unknown	ug/l									
PCBs										
PCB-1248	ug/l									0.77
Polychlorinated biphenyls, Total	ug/l	0.5								0.77

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Specific Groundwater Quality Criteria

TABLE 7B
SUMMARY OF DETECTED SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) AND PCBs IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-8 (204-214)	RW-9 (206-216)	RW-9A (85-95)	RW-10 (120-130)	RW-10 (185-195)	RW-10A (75-85)	SC-2
1,4-Dioxane[1]	ug/L	0.4	0.121 J			0.0883 J			
Atrazine	ug/l	3							
Bis(2-chloroethyl)ether	ug/l	7							
Bis(2-ethylhexyl) phthalate	ug/l	3					1.3 J	1 J	
Di-n-butyl phthalate	ug/l	700							
Isophorone	ug/l	40				1.3 J			
Pentachlorophenol	ug/l	0.3							0.11 J
Phenol	ug/l	2000	4.2 J			7.4 J			
Tentatively Identified Compounds (TICs)									
Benzenesulfonamide, N-butyl-	ug/l			17 NJ					
Unknown	ug/l				11 NJ				
PCBs									
PCB-1248	ug/l								
Polychlorinated biphenyls, Total	ug/l	0.5							

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Specific Groundwater Quality Criteria

TABLE 7C
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	OB-02	OB-03	OB-04	OB-05	OB-06	OB-07	OB-12	OB-13	RW-2 (279-289)	RW-2 (452-462)
Aluminum	mg/L	0.2	0.052	0.0135 U	0.0279 J	0.0135 U	0.019 J	0.0135 U	0.0339 J	0.027 J	0.163	0.114
Aluminum Dissolved	mg/L	0.2	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.172	0.0979
Antimony	mg/L	0.006	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.001 J	0.00076 U
Antimony Dissolved	mg/L	0.006	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00086 J	0.00076 U
Arsenic	mg/L	0.003	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.0017 J	0.0043
Arsenic Dissolved	mg/L	0.003	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.0019 J	0.0048
Barium	mg/L	6	0.0053	0.0031 J	0.0522	0.0284	0.017	0.0181	0.0023 J	0.0057	0.027	0.0535
Barium Dissolved	mg/L	6	0.0057	0.0034 J	0.0487	0.0183	0.0156	0.0178	0.002 J	0.0057	0.0289	0.0586
Beryllium	mg/L	0.001	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U
Beryllium Dissolved	mg/L	0.001	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U
Cadmium	mg/L	0.004	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U
Cadmium Dissolved	mg/L	0.004	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U
Calcium	mg/L		12	16.8	43.2	74.2	20.3	69.9	6.41	9.77	116	115
Calcium Dissolved	mg/L		12.5	16.9	45.5	78.1	21.1	73.9	6.56	9.53	122	122
Chromium	mg/L	0.07	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Chromium Dissolved	mg/L	0.07	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Cobalt	mg/L	0.1	0.0015 U	0.0015 U	0.0021 J	0.0062	0.0095	0.0029 J	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Cobalt Dissolved	mg/L	0.1	0.0015 U	0.0015 U	0.0015 U	0.0054	0.0091	0.0026 J	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Copper	mg/L	1.3	0.0041	0.0016 U	0.0016 U	0.0016 U	0.0039 J	0.0033 J	0.0042	0.0016 U	0.0022 J	0.0016 U
Copper Dissolved	mg/L	1.3	0.0018 J	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0031 J	0.0016 U	0.0016 U	0.0016 U
Cyanide, Total	mg/L	0.1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Iron	mg/L	0.3	0.133	1.06	5.85	21.1	12.1	2.36	0.0546 J	0.0491 U	0.0491 U	0.0564 J
Iron Dissolved	mg/L	0.3	0.0491 U	0.0491 U	0.528	5.15	2.98	0.0491 U	0.0491 U	0.0491 U	0.0491 U	0.0491 U
Lead	mg/L	0.005	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U
Lead Dissolved	mg/L	0.005	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U
Magnesium	mg/L		4.93	5.19	14.8	39.2	5.25	30.5	2.68	4.23	0.0684 U	0.0684 U
Magnesium Dissolved	mg/L		4.34	4.63	14	38.1	4.67	29.5	2.36	3.89	0.0684 U	0.0684 U
Manganese	mg/L	0.05	0.016	0.005 J	1.4	2.43	0.836	2.71	0.003 U	0.003 U	0.003 U	0.003 U
Manganese Dissolved	mg/L	0.05	0.003 U	0.003 J	1.47	2.49	0.749	2.67	0.003 U	0.003 U	0.003 U	0.003 U
Mercury	mg/L	0.002	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Mercury Dissolved	mg/L	0.002	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U

TABLE 7C
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	OB-02	OB-03	OB-04	OB-05	OB-06	OB-07	OB-12	OB-13	RW-2 (279-289)	RW-2 (452-462)
Nickel	mg/L	0.1	0.0016 U	0.0016 U	0.0016 U	0.0023 J	0.0022 J	0.0021 J	0.0016 U	0.0016 U	0.0033 J	0.0066
Nickel Dissolved	mg/L	0.1	0.0016 U	0.0016 U	0.0016 U	0.0018 J	0.0017 J	0.0016 U	0.0016 U	0.0016 U	0.0027 J	0.0065
Potassium	mg/L		1.34	1.14	2.47	3.55	1.86	2.81	0.526	1.07	7.86	97.5
Potassium Dissolved	mg/L		1.36	1.15	2.47	3.82	1.93	3.08	0.537	1.05	7.94	93.5
Selenium	mg/L	0.04	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.0031 J
Selenium Dissolved	mg/L	0.04	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.0036 J
Silver	mg/L	0.04	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Silver Dissolved	mg/L	0.04	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 UJ	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Sodium	mg/L	50	3.92	3.75	92.7	34.8	15.6	10.6	2.49	3.68	106	297
Sodium Dissolved	mg/L	50	3.89	3.31	87.8	33.9	14.5	10.4	2.19	3.21	116	332
Thallium	mg/L	0.002	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U
Thallium Dissolved	mg/L	0.002	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U
Vanadium	mg/L		0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0152	0.0308
Vanadium Dissolved	mg/L		0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0155	0.0313
Zinc	mg/L	2	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U
Zinc Dissolved	mg/L	2	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U
Wet Chemistry												
Alkalinity	mg/l		36.2	50.1	109	304	74.4	310	20.1	38.1	94.5	127
Bicarbonate Alkalinity as CaCO3	mg/l		36.2	50.1	109	304	74.4	310	20.1	38.1	5 U	5 U
Chloride	mg/l	250	1.81	2.23	170	89.9 D F	8.53 D	3.59 D	1.04	2.63	0.21	636 J
Sulfate	mg/l	250	8.94	9.71	17.7	7.61	22.1	8.1	10.4	10.5	0.11 U	375 J

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 7C
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	RW-8 (163-173)	RW-8 (204-214)	RW-9 (206-216)	RW-9A (85-95)	RW-10 (120-130)	RW-10 (185-195)	RW-10 (185-195) DUP	RW-10A (51-61)	RW-10A (75-85)	SC-2
Aluminum	mg/L	0.2	0.0182 U	0.0182 U	0.0623	0.107	0.114	0.119	0.114	0.0182 U	0.0273 J	0.0478
Aluminum Dissolved	mg/L	0.2	0.0182 U	0.0182 U		0.0182 U	0.1	0.0962	0.113	0.0182 U	0.0182 U	0.0135 U
Antimony	mg/L	0.006	0.00062 U	0.00062 U	0.00062 U	0.00062 U	0.00088 J	0.00062 U	0.00062 U	0.00062 U	0.00062 U	0.0013 J
Antimony Dissolved	mg/L	0.006	0.00062 U	0.00062 U		0.00062 U	0.00062 U	0.00062 U	0.00062 U	0.00062 U	0.00062 U	0.00096 J
Arsenic	mg/L	0.003	0.0015 J	0.0018 J	0.0028	0.003	0.0066	0.0046	0.0043	0.00086 J	0.00064 U	0.00071 U
Arsenic Dissolved	mg/L	0.003	0.0016 J	0.0017 J		0.0029	0.0072	0.004	0.0051	0.00079 J	0.00064 U	0.00071 U
Barium	mg/L	6	0.0097	0.0081	0.0596	0.0113	0.0131	0.0099	0.0093	0.0114	0.0067	0.0372
Barium Dissolved	mg/L	6	0.0095	0.0058		0.0101	0.0125	0.01	0.0103	0.0108	0.0067	0.0375
Beryllium	mg/L	0.001	0.00024 U	0.00024 U	0.00024 U	0.00024 U	0.00024 U	0.00024 U	0.00024 U	0.00024 U	0.00024 U	0.00029 U
Beryllium Dissolved	mg/L	0.001	0.00024 U	0.00024 U		0.00024 U	0.00024 U	0.00024 U	0.00024 U	0.00024 U	0.00024 U	0.00029 U
Cadmium	mg/L	0.004	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00072 U
Cadmium Dissolved	mg/L	0.004	0.00071 U	0.00071 U		0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00072 U
Calcium	mg/L		34.3	10.4	82.7	23.4	44.4	47.2	46.6	53.3	49.9	64.9
Calcium Dissolved	mg/L		34.6	7.6		24	44.1	51.4	49.6	55.4	52.1	70.6
Chromium	mg/L	0.07	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0015 U
Chromium Dissolved	mg/L	0.07	0.0013 U	0.0013 U		0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0015 U
Cobalt	mg/L	0.1	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0042	0.0013 U	0.0017 J
Cobalt Dissolved	mg/L	0.1	0.0013 U	0.0013 U		0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0034 J	0.0013 U	0.0015 U
Copper	mg/L	1.3	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0029 J	0.0014 U	0.0198
Copper Dissolved	mg/L	1.3	0.0014 U	0.0014 U		0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0092
Cyanide, Total	mg/L	0.1	0.002 U	0.002 U	0.0068 J	0.0065 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Iron	mg/L	0.3	0.0424 U	0.0732 J	0.663	0.405	0.0424 U	0.0424 U	0.0424 U	0.648	0.0424 U	0.331
Iron Dissolved	mg/L	0.3	0.0424 U	0.0441 J		0.0424 U	0.0424 U	0.0424 U	0.0424 U	0.0424 U	0.0424 U	0.0491 U
Lead	mg/L	0.005	0.00038 U	0.00038 U	0.00038 U	0.00038 U	0.00038 U	0.00038 U	0.00038 U	0.00038 U	0.00038 U	0.002
Lead Dissolved	mg/L	0.005	0.00038 U	0.00038 U		0.00038 U	0.00038 U	0.00038 U	0.00038 U	0.00038 U	0.00038 U	0.00044 U
Magnesium	mg/L		5.46	10.7	16.3	5.71	0.0636 U	0.747	0.738	15.1	14.2	17.7
Magnesium Dissolved	mg/L		6.71	10.3		5.39	0.0636 U	1.33	0.999	14.2	14.9	17.3
Manganese	mg/L	0.05	0.0147	0.0059 J	0.316	0.0354	0.0025 U	0.0025 U	0.0025 U	2.46	0.0091	0.0445
Manganese Dissolved	mg/L	0.05	0.0151	0.0025 U		0.0316	0.0025 U	0.0025 U	0.0025 U	2.31	0.0025 U	0.0088
Mercury	mg/L	0.002	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00014 U
Mercury Dissolved	mg/L	0.002	0.00017 U	0.00017 U		0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00017 U	0.00014 U

TABLE 7C
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	RW-8 (163-173)	RW-8 (204-214)	RW-9 (206-216)	RW-9A (85-95)	RW-10 (120-130)	RW-10 (185-195)	RW-10 (185-195) DUP	RW-10A (51-61)	RW-10A (75-85)	SC-2
Nickel	mg/L	0.1	0.0023 J	0.0045	0.0023 J	0.0082	0.0114	0.0022 J	0.0022 J	0.0182	0.0014 U	0.0023 J
Nickel Dissolved	mg/L	0.1	0.0016 J	0.0039 J		0.0014 U	0.0093	0.0014 J	0.0017 J	0.0114	0.0014 U	0.0017 J
Potassium	mg/L		2.21	128	16.3	2.02	21.6	10.3	9.68	2.76	2.17	3.56
Potassium Dissolved	mg/L		2.03	138		1.91 *	22.6	8.74	9.72	2.75	2.12	3.67
Selenium	mg/L	0.04	0.00073 U	0.00073 U	0.00073 U	0.00073 U	0.0025 J	0.00073 U	0.00073 U	0.00073 U	0.00073 U	0.00079 U
Selenium Dissolved	mg/L	0.04	0.00073 U	0.00073 U		0.00073 U	0.0025 J	0.00073 U	0.0009 J	0.00073 U	0.00073 U	0.00079 U
Silver	mg/L	0.04	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0015 U
Silver Dissolved	mg/L	0.04	0.0013 U	0.0013 U		0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0013 U	0.0015 U
Sodium	mg/L	50	43.8	86.3	166	4.83	68.8	31.2	30.7	20.3	5.17	8.48
Sodium Dissolved	mg/L	50	42.1	89.1		4.5	63.6	25.3	30.6	17.4	5.29	8.42
Thallium	mg/L	0.002	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00031 U
Thallium Dissolved	mg/L	0.002	0.00026 U	0.00026 U		0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00026 U	0.00031 U
Vanadium	mg/L		0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0059	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0014 U
Vanadium Dissolved	mg/L		0.0019 U	0.0019 U		0.0019 U	0.0058	0.0019 U	0.0019 U	0.0019 U	0.0019 U	0.0014 U
Zinc	mg/L	2	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.0397
Zinc Dissolved	mg/L	2	0.007 U	0.007 U		0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.0365
Wet Chemistry												
Alkalinity	mg/l		82.4	277		81.4	130	74.4	78.4	185	161	229
Bicarbonate Alkalinity as CaCO3	mg/l		82.4	125		81.4	5 U	5 U	5 U	185	161	229
Chloride	mg/l	250	25.9 D	123 D		1.6	11 D	57.5 D	61.6 D	3.7	33.7	5.86
Sulfate	mg/l	250	140 D	182 D		12.3	143 D F	1200 D	1200 D	50.9 D	754 D	35

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 7D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-02	OB-03	OB-04	OB-05	OB-06	OB-07	OB-12	OB-13
1,1,1-Trichloroethane	ug/l	30	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	1	0.19 U	0.19 U	0.19 U	0.19 UJ	0.19 UJ	0.19 UJ	0.19 U	0.19 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l		0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	3	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1-Dichloroethene	ug/l	1	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l		0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l	0.03	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	ug/l	9	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l	0.02	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
1,2-Dichlorobenzene	ug/l	600	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloroethane	ug/l	2	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	ug/l	1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	600	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	ug/l	75	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone (MEK)	ug/l	300	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
2-Hexanone	ug/l	300	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l		0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l	6000	1.1 U	19	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Benzene	ug/l	1	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
Bromoform	ug/l	4	0.18 UJ	0.18 U	0.18 UJ	0.18 U	0.18 U	0.18 U	0.18 UJ	0.18 U
Bromomethane	ug/l	10	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l	700	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Carbon tetrachloride	ug/l	1	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chlorobromomethane	ug/l		0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane[1]	ug/l	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U

TABLE 7D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-02	OB-03	OB-04	OB-05	OB-06	OB-07	OB-12	OB-13
Chloroform	ug/l	70	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloromethane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l	70	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,3-Dichloropropene	ug/l		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l		0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Dichlorobromomethane	ug/l	1	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l	1000	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Ethylbenzene	ug/l	700	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Ethylene Dibromide	ug/l	0.03	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l	700	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Methyl acetate	ug/l	7000	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l		0.13 U	0.13 U	0.13 U	0.17 J	0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Methylene Chloride	ug/l	3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Styrene	ug/l	100	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	1	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	ug/l	600	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-Dichloroethene	ug/l	100	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l		0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	ug/l	2000	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Vinyl chloride	ug/l	1	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Xylenes, Total	ug/l	1000	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Tentatively Identified Compounds (TICs)										
Sulfur dioxide	ug/l									

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Generic Groundwater Quality Criteria

TABLE 7D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-2 (279-289)	RW-2 (452-462)	RW-8 (163-173)	RW-8 (204-214)	RW-9 (206-216)	RW-9A (85-95)	RW-10 (120-130)	RW-10 (185-195)
1,1,1-Trichloroethane	ug/l	30	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	1	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l		0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	3	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1-Dichloroethene	ug/l	1	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l		0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l	0.03	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	ug/l	9	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l	0.02	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
1,2-Dichlorobenzene	ug/l	600	0.39 J	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloroethane	ug/l	2	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	ug/l	1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	600	0.77 J	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	ug/l	75	1.5	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone (MEK)	ug/l	300	2.2 U	2.2 U	2.2 U	13	2.2 U	2.2 U	4.7 J	2.2 U
2-Hexanone	ug/l	300	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.75 J	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l		0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l	6000	13 B	16 B	6.5 B	8.8 B	5.1 B	6.7 B	48 B	20 B
Benzene	ug/l	1	0.34 J	0.2 J	0.35 J	3.8	0.15 J	0.09 U	0.09 U	0.09 U
Bromoform	ug/l	4	0.18 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.18 U	0.18 U	0.18 U	0.18 UJ
Bromomethane	ug/l	10	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l	700	0.22 U	0.7 J	0.22 U	1.6	0.22 U	0.22 U	0.53 J	0.62 J
Carbon tetrachloride	ug/l	1	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	50	12	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chlorobromomethane	ug/l		0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane[1]	ug/l	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U

TABLE 7D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-2 (279-289)	RW-2 (452-462)	RW-8 (163-173)	RW-8 (204-214)	RW-9 (206-216)	RW-9A (85-95)	RW-10 (120-130)	RW-10 (185-195)
Chloroform	ug/l	70	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloromethane	ug/l		0.22 U	0.32 J	0.22 U	0.49 J	0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l	70	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,3-Dichloropropene	ug/l		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l		0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Dichlorobromomethane	ug/l	1	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l	1000	0.14 U	0.14 U	0.14 UJ	0.14 UJ	0.14 U	0.14 U	0.14 U	0.14 UJ
Ethylbenzene	ug/l	700	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Ethylene Dibromide	ug/l	0.03	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l	700	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Methyl acetate	ug/l	7000	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l		0.25 J	0.32 J	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Methylene Chloride	ug/l	3	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Styrene	ug/l	100	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	1	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	ug/l	600	0.42 J	0.69 J	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-Dichloroethene	ug/l	100	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l		0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	ug/l	2000	0.15 U	0.15 U	0.15 UJ	0.15 UJ	0.15 U	0.15 U	0.15 U	0.15 UJ
Vinyl chloride	ug/l	1	0.06 U	0.2 J	0.06 U	0.24 J	0.06 U	0.06 U	0.06 U	0.06 U
Xylenes, Total	ug/l	1000	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Tentatively Identified Compounds (TICs)										
Sulfur dioxide	ug/l								27 NJ	

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Generic Groundwater Quality Criteria

TABLE 7D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-10 (185-195) DUP	RW-10A (51-61)	RW-10A (75-85)	SC-2
1,1,1-Trichloroethane	ug/l	30	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	1	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l		0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	3	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U
1,1-Dichloroethene	ug/l	1	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l		0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l	0.03	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	ug/l	9	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l	0.02	0.007 U	0.007 U	0.007 U	0.007 U
1,2-Dichlorobenzene	ug/l	600	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloroethane	ug/l	2	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	ug/l	1	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	600	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	ug/l	75	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone (MEK)	ug/l	300	2.2 U	2.2 U	2.2 U	2.2 U
2-Hexanone	ug/l	300	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l		0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l	6000	20 B	5 B	7 B	9.2
Benzene	ug/l	1	0.09 U	0.09 U	0.09 U	0.09 U
Bromoform	ug/l	4	0.18 UJ	0.18 U	0.18 UJ	0.18 UJ
Bromomethane	ug/l	10	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l	700	0.74 J	0.22 U	0.22 U	0.22 U
Carbon tetrachloride	ug/l	1	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U
Chlorobromomethane	ug/l		0.3 U	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane[1]	ug/l	5	0.37 U	0.37 U	0.37 U	0.37 U

TABLE 7D
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-10 (185-195) DUP	RW-10A (51-61)	RW-10A (75-85)	SC-2
Chloroform	ug/l	70	0.22 U	0.22 U	0.22 U	0.22 U
Chloromethane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l	70	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,3-Dichloropropene	ug/l		0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l		0.26 U	0.26 U	0.26 U	0.26 U
Dichlorobromomethane	ug/l	1	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l	1000	0.14 UJ	0.14 U	0.14 UJ	0.14 U
Ethylbenzene	ug/l	700	0.3 U	0.3 U	0.3 U	0.3 U
Ethylene Dibromide	ug/l	0.03	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l	700	0.32 U	0.32 U	0.32 U	0.32 U
Methyl acetate	ug/l	7000	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l		0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U
Methylene Chloride	ug/l	3	0.21 U	0.21 U	0.21 U	0.22 UB
Styrene	ug/l	100	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	1	0.12 U	0.12 U	0.12 U	0.15 J
Toluene	ug/l	600	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-Dichloroethene	ug/l	100	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l		0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	ug/l	2000	0.15 UJ	0.15 U	0.15 UJ	0.15 U
Vinyl chloride	ug/l	1	0.06 U	0.06 U	0.06 U	0.06 U
Xylenes, Total	ug/l	1000	0.28 U	0.28 U	0.28 U	0.28 U
Tentatively Identified Compounds (TICs)						
Sulfur dioxide	ug/l					

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Generic Groundwater Quality Criteria

TABLE 7E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-02	OB-03	OB-04	OB-05	OB-06	OB-07	OB-12	OB-13
1,1'-Biphenyl	ug/l	400	0.64 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U
1,2,4,5-Tetrachlorobenzene	ug/l		0.44 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
1,4-Dioxane[1]	ug/L	0.4	0.0765 U	0.0735 U	0.079 J	0.165	0.0735 U	0.146 J	0.0735 U	0.075 U
2,2'-oxybis[1-chloropropane]	ug/l	300	0.95 U	0.97 U	0.98 U	0.97 U	0.97 U	0.98 U	0.97 U	0.97 U
2,3,4,6-Tetrachlorophenol	ug/l	200	0.7 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
2,4,5-Trichlorophenol	ug/l	700	0.5 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
2,4,6-Trichlorophenol	ug/l	20	0.54 U	0.55 U	0.56 U	0.55 U	0.55 U	0.56 U	0.55 U	0.55 U
2,4-Dichlorophenol	ug/l	20	0.64 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U
2,4-Dimethylphenol	ug/l	100	0.93 U	0.95 U	0.96 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U
2,4-Dinitrophenol	ug/l	40	2.4 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2,4-Dinitrotoluene	ug/l		1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
2,6-Dinitrotoluene	ug/l		0.9 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
2-Chloronaphthalene	ug/l	600	0.62 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
2-Chlorophenol	ug/l	40	0.76 U	0.77 U	0.78 U	0.77 U	0.77 U	0.78 U	0.77 U	0.77 U
2-Methylnaphthalene	ug/l	30	0.9 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
2-Methylphenol	ug/l		1.3 U	1.3 UJ	1.4 U	1.3 UJ	1.3 UJ	1.4 UJ	1.3 U	1.3 UJ
2-Nitroaniline	ug/l		0.66 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U
2-Nitrophenol	ug/l		0.6 U	0.61 U	0.62 U	0.61 U	0.61 U	0.62 U	0.61 U	0.61 U
3,3'-Dichlorobenzidine	ug/l	30	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
3-Nitroaniline	ug/l		0.84 U	0.85 U	0.86 U	0.85 U	0.85 U	0.86 U	0.85 U	0.85 U
4,6-Dinitro-2-methylphenol	ug/l	1	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
4-Bromophenyl phenyl ether	ug/l		1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
4-Chloro-3-methylphenol	ug/l	100	0.78 U	0.79 U	0.8 U	0.79 U	0.79 U	0.8 U	0.79 U	0.79 U
4-Chloroaniline	ug/l		0.74 U	0.76 U	0.77 U	0.76 U	0.76 U	0.77 U	0.76 U	0.76 U
4-Chlorophenyl phenyl ether	ug/l		0.98 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methylphenol	ug/l		0.89 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
4-Nitroaniline	ug/l		0.49 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Nitrophenol	ug/l		4.7 U	4.8 U	4.9 U	4.8 U	4.8 U	4.9 U	4.8 U	4.8 U

TABLE 7E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-02	OB-03	OB-04	OB-05	OB-06	OB-07	OB-12	OB-13
Acenaphthene	ug/l	400	0.9 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Acenaphthylene	ug/l	100	0.66 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U
Acetophenone	ug/l	700	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Anthracene	ug/l	2000	0.58 U	0.59 U	0.6 U	0.59 U	0.59 U	0.6 U	0.59 U	0.59 U
Atrazine	ug/l	3	0.79 U	0.8 U	0.81 U	0.8 U	0.8 U	0.81 U	0.8 U	1.4 J
Benzaldehyde	ug/l		0.88 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
Benzo[a]anthracene	ug/l	0.1	0.038 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U
Benzo[a]pyrene	ug/l	0.1	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U
Benzo[b]fluoranthene	ug/l	0.2	0.012 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U
Benzo[g,h,i]perylene	ug/l	100	0.77 U	0.78 U	0.79 U	0.78 U	0.78 U	0.79 U	0.78 U	0.78 U
Benzo[k]fluoranthene	ug/l	0.5	0.18 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Bis(2-chloroethoxy)methane	ug/l		0.7 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Bis(2-chloroethyl)ether	ug/l	7	0.0092 U	0.0094 U	0.0095 U	0.0094 U	0.0094 U	0.0095 U	0.0094 U	0.0094 U
Bis(2-ethylhexyl) phthalate	ug/l	3	0.73 U	0.75 U	0.76 U	0.75 U	0.75 U	0.76 U	0.75 U	0.75 U
Butyl benzyl phthalate	ug/l	100	0.61 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Caprolactam	ug/l	5000	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Carbazole	ug/l		0.87 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U
Chrysene	ug/l	5	0.68 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Dibenz(a,h)anthracene	ug/l	0.3	0.022 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U
Dibenzofuran	ug/l		0.87 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U
Diethyl phthalate	ug/l	6000	1 U	1 U	1.1 U	1 U	1 U	1.1 U	1 U	1 U
Dimethyl phthalate	ug/l	100	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Di-n-butyl phthalate	ug/l	700	0.84 U	0.85 U	0.86 U	0.85 U	0.85 U	0.86 U	0.85 U	0.85 U
Di-n-octyl phthalate	ug/l	100	0.7 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Fluoranthene	ug/l	300	0.73 U	0.75 U	0.76 U	0.75 U	0.75 U	0.76 U	0.75 U	0.75 U
Fluorene	ug/l	300	0.82 U	0.83 U	0.84 U	0.83 U	0.83 U	0.84 U	0.83 U	0.83 U
Hexachlorobenzene	ug/l	0.02	0.0092 U	0.0094 U	0.0095 U	0.0094 U	0.0094 U	0.0095 U	0.0094 U	0.0094 U
Hexachlorobutadiene	ug/l	1	0.78 U	0.79 U	0.8 U	0.79 U	0.79 U	0.8 U	0.79 U	0.79 U

TABLE 7E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-02	OB-03	OB-04	OB-05	OB-06	OB-07	OB-12	OB-13
Hexachlorocyclopentadiene	ug/l	40	0.62 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
Hexachloroethane	ug/l	7	0.092 U	0.094 U	0.095 U	0.094 U	0.094 U	0.095 U	0.094 U	0.094 U
Indeno[1,2,3-cd]pyrene	ug/l	0.2	0.028 U	0.028 U	0.028 U	0.028 U	0.028 U	0.028 U	0.028 U	0.028 U
Isophorone	ug/l	40	0.68 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Naphthalene	ug/l	300	0.82 U	0.83 U	0.84 U	0.83 U	0.83 U	0.84 U	0.83 U	0.83 U
Nitrobenzene	ug/l	6	0.5 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
N-Nitrosodi-n-propylamine	ug/l	10	0.85 U	0.86 U	0.87 U	0.86 U	0.86 U	0.87 U	0.86 U	0.86 U
N-Nitrosodiphenylamine	ug/l	10	0.76 U	0.77 U	0.78 U	0.77 U	0.77 U	0.78 U	0.77 U	0.77 U
Pentachlorophenol	ug/l	0.3	0.079 U	0.1 J	0.1 J	0.11 J	0.1 J	0.1 J	0.08 U	0.08 U
Phenanthrene	ug/l	100	0.66 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U
Phenol	ug/l	2000	0.42 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Pyrene	ug/l	200	0.85 U	0.86 U	0.87 U	0.86 U	0.86 U	0.87 U	0.86 U	0.86 U
Tentatively Identified Compounds (TICs)										
Benzenesulfonamide, N-butyl-	ug/l									
Unknown	ug/l									

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Specific Groundwater Quality Criteria

TABLE 7E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-2 (279-289)	RW-2 (452-462)	RW-8 (163-173)	RW-8 (204-214)	RW-9 (206-216)	RW-9A (85-95)	RW-10 (120-130)	RW-10 (185-195)
1,1'-Biphenyl	ug/l	400	0.66 U	0.66 U	0.66 U	0.67 U	0.67 U	0.66 U	0.67 U	0.67 U
1,2,4,5-Tetrachlorobenzene	ug/l		0.45 U	0.45 U	0.45 U	0.46 U	0.46 U	0.45 U	0.46 U	0.46 U
1,4-Dioxane[1]	ug/L	0.4	11.9	0.901	0.0781 U	0.121 J	0.0915 U	0.0815 U	0.0883 J	0.0798 U
2,2'-oxybis[1-chloropropane]	ug/l	300	0.97 U	0.97 U	0.97 U	0.99 U	0.99 U	0.97 U	0.99 U	0.99 U
2,3,4,6-Tetrachlorophenol	ug/l	200	0.72 U	0.72 U	0.72 U	0.73 U	0.73 U	0.72 U	0.73 U	0.73 U
2,4,5-Trichlorophenol	ug/l	700	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.51 U	0.52 U	0.52 U
2,4,6-Trichlorophenol	ug/l	20	0.55 U	0.55 U	0.55 U	0.56 U	0.56 U	0.55 U	0.56 U	0.56 U
2,4-Dichlorophenol	ug/l	20	0.66 U	0.66 U	0.66 U	0.67 U	0.67 U	0.66 U	0.67 U	0.67 U
2,4-Dimethylphenol	ug/l	100	0.95 U	0.95 U	0.95 U	0.97 U	0.97 U	0.95 U	0.97 U	0.97 U
2,4-Dinitrophenol	ug/l	40	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ
2,4-Dinitrotoluene	ug/l		1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
2,6-Dinitrotoluene	ug/l		0.92 U	0.92 U	0.92 U	0.94 U	0.94 U	0.92 U	0.94 U	0.94 U
2-Chloronaphthalene	ug/l	600	0.64 U	0.64 U	0.64 U	0.65 U	0.65 U	0.64 U	0.65 U	0.65 U
2-Chlorophenol	ug/l	40	0.77 U	0.77 U	0.77 U	0.79 U	0.79 U	0.77 U	0.79 U	0.79 U
2-Methylnaphthalene	ug/l	30	0.92 U	0.92 U	0.92 U	0.94 U	0.94 UJ	0.92 UJ	0.94 UJ	0.94 U
2-Methylphenol	ug/l		1.3 UJ	1.3 UJ	1.3 U	1.4 U	1.4 UJ	1.3 UJ	1.4 UJ	1.4 U
2-Nitroaniline	ug/l		0.68 U	0.68 U	0.68 U	0.69 U	0.69 U	0.68 U	0.69 U	0.69 U
2-Nitrophenol	ug/l		0.61 U	0.61 U	0.61 U	0.63 U	0.63 U	0.61 U	0.63 U	0.63 U
3,3'-Dichlorobenzidine	ug/l	30	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
3-Nitroaniline	ug/l		0.85 U	0.85 U	0.85 U	0.87 U	0.87 U	0.85 U	0.87 U	0.87 U
4,6-Dinitro-2-methylphenol	ug/l	1	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
4-Bromophenyl phenyl ether	ug/l		1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
4-Chloro-3-methylphenol	ug/l	100	0.79 U	0.79 U	0.79 U	0.81 U	0.81 U	0.79 U	0.81 U	0.81 U
4-Chloroaniline	ug/l		0.76 U	0.76 U	0.76 U	0.78 U	0.78 U	0.76 U	0.78 U	0.78 U
4-Chlorophenyl phenyl ether	ug/l		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methylphenol	ug/l		0.91 U	0.91 U	0.91 U	0.93 U	0.93 U	0.91 U	0.93 U	0.93 U
4-Nitroaniline	ug/l		0.5 U	0.5 U	0.5 U	0.51 U	0.51 U	0.5 U	0.51 U	0.51 U
4-Nitrophenol	ug/l		4.8 U	4.8 U	4.8 U	4.9 U	4.9 U	4.8 U	4.9 U	4.9 U

TABLE 7E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-2 (279-289)	RW-2 (452-462)	RW-8 (163-173)	RW-8 (204-214)	RW-9 (206-216)	RW-9A (85-95)	RW-10 (120-130)	RW-10 (185-195)
Acenaphthene	ug/l	400	0.92 U	0.92 U	0.92 U	0.94 U	0.94 U	0.92 U	0.94 U	0.94 U
Acenaphthylene	ug/l	100	0.68 U	0.68 U	0.68 U	0.69 U	0.69 U	0.68 U	0.69 U	0.69 U
Acetophenone	ug/l	700	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Anthracene	ug/l	2000	0.59 U	0.59 U	0.59 U	0.61 U	0.61 U	0.59 U	0.61 U	0.61 U
Atrazine	ug/l	3	0.8 U	0.8 U	0.8 U	0.82 U	0.82 U	0.8 UJ	0.82 UJ	0.82 U
Benzaldehyde	ug/l		0.9 U	0.9 U	0.9 U	0.91 U	0.91 U	0.9 U	0.91 U	0.91 U
Benzo[a]anthracene	ug/l	0.1	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U
Benzo[a]pyrene	ug/l	0.1	0.027 U	0.027 U	0.027 UJ	0.028 UJ	0.028 U	0.027 U	0.028 U	0.028 UJ
Benzo[b]fluoranthene	ug/l	0.2	0.013 U	0.013 U	0.013 UJ	0.013 UJ	0.013 U	0.013 U	0.013 U	0.013 UJ
Benzo[g,h,i]perylene	ug/l	100	0.78 U	0.78 U	0.78 U	0.8 U	0.8 U	0.78 U	0.8 U	0.8 U
Benzo[k]fluoranthene	ug/l	0.5	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Bis(2-chloroethoxy)methane	ug/l		0.72 U	0.72 U	0.72 U	0.73 U	0.73 U	0.72 U	0.73 U	0.73 U
Bis(2-chloroethyl)ether	ug/l	7	0.033	0.0094 U	0.0094 UJ	0.0096 UJ	0.0096 U	0.0094 U	0.0096 U	0.0096 UJ
Bis(2-ethylhexyl) phthalate	ug/l	3	1.9 J	1.5 J	0.75 U	0.77 U	0.77 U	0.75 U	0.77 U	1.3 J
Butyl benzyl phthalate	ug/l	100	0.63 U	0.63 U	0.63 U	0.64 U	0.64 U	0.63 U	0.64 U	0.64 U
Caprolactam	ug/l	5000	1.1 UJ	1.1 UJ	1.1 U	1.1 U	1.1 UJ	1.1 UJ	1.1 UJ	1.1 U
Carbazole	ug/l		0.89 U	0.89 U	0.89 U	0.9 U	0.9 U	0.89 U	0.9 U	0.9 U
Chrysene	ug/l	5	0.7 U	0.7 U	0.7 U	0.71 U	0.71 U	0.7 U	0.71 U	0.71 U
Dibenz(a,h)anthracene	ug/l	0.3	0.023 U	0.023 U	0.023 UJ	0.023 UJ	0.023 U	0.023 U	0.023 U	0.023 UJ
Dibenzofuran	ug/l		0.89 U	0.89 U	0.89 U	0.9 U	0.9 U	0.89 U	0.9 U	0.9 U
Diethyl phthalate	ug/l	6000	1 U	1 U	1 U	1.1 U	1.1 U	1 U	1.1 U	1.1 U
Dimethyl phthalate	ug/l	100	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Di-n-butyl phthalate	ug/l	700	0.85 U	1.5 UB	0.85 U	0.87 U	0.87 U	0.85 U	0.87 U	0.87 U
Di-n-octyl phthalate	ug/l	100	0.72 U	0.72 U	0.72 U	0.73 U	0.73 U	0.72 U	0.73 U	0.73 U
Fluoranthene	ug/l	300	0.75 U	0.75 U	0.75 U	0.77 U	0.77 U	0.75 U	0.77 U	0.77 U
Fluorene	ug/l	300	0.83 U	0.83 U	0.83 U	0.85 U	0.85 U	0.83 U	0.85 U	0.85 U
Hexachlorobenzene	ug/l	0.02	0.0094 U	0.0094 U	0.0094 U	0.0096 U	0.0096 U	0.0094 U	0.0096 U	0.0096 U
Hexachlorobutadiene	ug/l	1	0.79 U	0.79 U	0.79 U	0.81 U	0.81 UJ	0.79 UJ	0.81 UJ	0.81 U

TABLE 7E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-2 (279-289)	RW-2 (452-462)	RW-8 (163-173)	RW-8 (204-214)	RW-9 (206-216)	RW-9A (85-95)	RW-10 (120-130)	RW-10 (185-195)
Hexachlorocyclopentadiene	ug/l	40	0.64 U	0.64 U	0.64 U	0.65 U	0.65 U	0.64 U	0.65 U	0.65 U
Hexachloroethane	ug/l	7	0.094 U	0.094 U	0.094 U	0.096 U	0.096 U	0.094 U	0.096 U	0.096 U
Indeno[1,2,3-cd]pyrene	ug/l	0.2	0.028 U	0.028 U	0.028 U	0.029 U	0.029 U	0.028 U	0.029 U	0.029 U
Isophorone	ug/l	40	0.7 U	0.7 U	0.7 U	0.71 U	0.71 U	0.7 U	1.3 J	0.71 U
Naphthalene	ug/l	300	0.83 U	0.83 U	0.83 U	0.85 U	0.85 UJ	0.83 UJ	0.85 UJ	0.85 U
Nitrobenzene	ug/l	6	0.51 U	0.51 U	0.51 U	0.52 U	0.52 U	0.51 U	0.52 U	0.52 U
N-Nitrosodi-n-propylamine	ug/l	10	0.86 U	0.86 U	0.86 U	0.88 U	0.88 U	0.86 U	0.88 U	0.88 U
N-Nitrosodiphenylamine	ug/l	10	0.77 U	0.77 U	0.77 U	0.79 U	0.79 U	0.77 U	0.79 U	0.79 U
Pentachlorophenol	ug/l	0.3	0.08 U	0.08 U	0.08 U	0.082 U	0.082 U	0.08 U	0.082 U	0.082 U
Phenanthrene	ug/l	100	0.68 U	0.68 U	0.68 U	0.69 U	0.69 U	0.68 U	0.69 U	0.69 U
Phenol	ug/l	2000	0.43 U	11	0.43 U	4.2 J	0.44 U	0.43 U	7.4 J	0.44 U
Pyrene	ug/l	200	0.86 U	0.86 U	0.86 U	0.88 U	0.88 U	0.86 U	0.88 U	0.88 U
Tentatively Identified Compounds (TICs)										
Benzenesulfonamide, N-butyl-	ug/l						17 NJ			
Unknown	ug/l							11 NJ		

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Specific Groundwater Quality Criteria

TABLE 7E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-10 (185-195) DUP	RW-10A (51-61)	RW-10A (75-85)	SC-2
1,1'-Biphenyl	ug/l	400	0.67 U	0.67 U	0.67 U	0.66 U
1,2,4,5-Tetrachlorobenzene	ug/l		0.46 U	0.46 U	0.46 U	0.45 U
1,4-Dioxane[1]	ug/L	0.4	0.0815 U	0.0798 U	0.075 U	0.0636 U
2,2'-oxybis[1-chloropropane]	ug/l	300	0.99 U	0.99 U	0.99 U	0.97 U
2,3,4,6-Tetrachlorophenol	ug/l	200	0.73 U	0.73 U	0.73 U	0.72 U
2,4,5-Trichlorophenol	ug/l	700	0.52 U	0.52 U	0.52 U	0.51 U
2,4,6-Trichlorophenol	ug/l	20	0.56 U	0.56 U	0.56 U	0.55 U
2,4-Dichlorophenol	ug/l	20	0.67 U	0.67 U	0.67 U	0.66 U
2,4-Dimethylphenol	ug/l	100	0.97 U	0.97 U	0.97 U	0.95 U
2,4-Dinitrophenol	ug/l	40	2.5 UJ	2.5 U	2.5 UJ	2.5 U
2,4-Dinitrotoluene	ug/l		1.1 U	1.1 U	1.1 U	1.1 U
2,6-Dinitrotoluene	ug/l		0.94 U	0.94 U	0.94 U	0.92 U
2-Chloronaphthalene	ug/l	600	0.65 U	0.65 U	0.65 U	0.64 U
2-Chlorophenol	ug/l	40	0.79 U	0.79 U	0.79 U	0.77 U
2-Methylnaphthalene	ug/l	30	0.94 U	0.94 UJ	0.94 U	0.92 U
2-Methylphenol	ug/l		1.4 U	1.4 UJ	1.4 U	1.3 U
2-Nitroaniline	ug/l		0.69 U	0.69 U	0.69 U	0.68 U
2-Nitrophenol	ug/l		0.63 U	0.63 U	0.63 U	0.61 U
3,3'-Dichlorobenzidine	ug/l	30	1.1 U	1.1 U	1.1 U	1.1 U
3-Nitroaniline	ug/l		0.87 U	0.87 U	0.87 U	0.85 U
4,6-Dinitro-2-methylphenol	ug/l	1	2.1 U	2.1 U	2.1 U	2.1 U
4-Bromophenyl phenyl ether	ug/l		1.1 U	1.1 U	1.1 U	1.1 U
4-Chloro-3-methylphenol	ug/l	100	0.81 U	0.81 U	0.81 U	0.79 U
4-Chloroaniline	ug/l		0.78 U	0.78 U	0.78 U	0.76 U
4-Chlorophenyl phenyl ether	ug/l		1 U	1 U	1 U	1 U
4-Methylphenol	ug/l		0.93 U	0.93 U	0.93 U	0.91 U
4-Nitroaniline	ug/l		0.51 U	0.51 U	0.51 U	0.5 U
4-Nitrophenol	ug/l		4.9 U	4.9 U	4.9 U	4.8 U

TABLE 7E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-10 (185-195) DUP	RW-10A (51-61)	RW-10A (75-85)	SC-2
Acenaphthene	ug/l	400	0.94 U	0.94 U	0.94 U	0.92 U
Acenaphthylene	ug/l	100	0.69 U	0.69 U	0.69 U	0.68 U
Acetophenone	ug/l	700	1.1 U	1.1 U	1.1 U	1.1 U
Anthracene	ug/l	2000	0.61 U	0.61 U	0.61 U	0.59 U
Atrazine	ug/l	3	0.82 U	0.82 U	0.82 U	0.8 U
Benzaldehyde	ug/l		0.91 U	0.91 U	0.91 U	0.9 U
Benzo[a]anthracene	ug/l	0.1	0.039 U	0.039 U	0.039 U	0.039 U
Benzo[a]pyrene	ug/l	0.1	0.028 UJ	0.028 U	0.028 UJ	0.027 U
Benzo[b]fluoranthene	ug/l	0.2	0.013 UJ	0.013 U	0.013 UJ	0.013 U
Benzo[g,h,i]perylene	ug/l	100	0.8 U	0.8 U	0.8 U	0.78 U
Benzo[k]fluoranthene	ug/l	0.5	0.19 U	0.19 U	0.19 U	0.19 U
Bis(2-chloroethoxy)methane	ug/l		0.73 U	0.73 U	0.73 U	0.72 U
Bis(2-chloroethyl)ether	ug/l	7	0.0096 UJ	0.0096 U	0.0096 UJ	0.0094 U
Bis(2-ethylhexyl) phthalate	ug/l	3	0.77 U	0.77 U	1 J	0.75 U
Butyl benzyl phthalate	ug/l	100	0.64 U	0.64 U	0.64 U	0.63 U
Caprolactam	ug/l	5000	1.1 U	1.1 UJ	1.1 U	1.1 U
Carbazole	ug/l		0.9 U	0.9 U	0.9 U	0.89 U
Chrysene	ug/l	5	0.71 U	0.71 U	0.71 U	0.7 U
Dibenz(a,h)anthracene	ug/l	0.3	0.023 UJ	0.023 U	0.023 UJ	0.023 U
Dibenzofuran	ug/l		0.9 U	0.9 U	0.9 U	0.89 U
Diethyl phthalate	ug/l	6000	1.1 U	1.1 U	1.1 U	1 U
Dimethyl phthalate	ug/l	100	1 U	1 U	1 U	1 U
Di-n-butyl phthalate	ug/l	700	0.87 U	0.87 U	0.87 U	0.85 U
Di-n-octyl phthalate	ug/l	100	0.73 U	0.73 U	0.73 U	0.72 U
Fluoranthene	ug/l	300	0.77 U	0.77 U	0.77 U	0.75 U
Fluorene	ug/l	300	0.85 U	0.85 U	0.85 U	0.83 U
Hexachlorobenzene	ug/l	0.02	0.0096 U	0.0096 U	0.0096 U	0.0094 U
Hexachlorobutadiene	ug/l	1	0.81 U	0.81 UJ	0.81 U	0.79 U

TABLE 7E
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	RW-10 (185-195) DUP	RW-10A (51-61)	RW-10A (75-85)	SC-2
Hexachlorocyclopentadiene	ug/l	40	0.65 U	0.65 U	0.65 U	0.64 U
Hexachloroethane	ug/l	7	0.096 U	0.096 U	0.096 U	0.094 U
Indeno[1,2,3-cd]pyrene	ug/l	0.2	0.029 U	0.029 U	0.029 U	0.028 U
Isophorone	ug/l	40	0.71 U	0.71 U	0.71 U	0.7 U
Naphthalene	ug/l	300	0.85 U	0.85 UJ	0.85 U	0.83 U
Nitrobenzene	ug/l	6	0.52 U	0.52 U	0.52 U	0.51 U
N-Nitrosodi-n-propylamine	ug/l	10	0.88 U	0.88 U	0.88 U	0.86 U
N-Nitrosodiphenylamine	ug/l	10	0.79 U	0.79 U	0.79 U	0.77 U
Pentachlorophenol	ug/l	0.3	0.082 U	0.082 U	0.082 U	0.11 J
Phenanthrene	ug/l	100	0.69 U	0.69 U	0.69 U	0.68 U
Phenol	ug/l	2000	0.44 U	0.44 U	0.44 U	0.43 U
Pyrene	ug/l	200	0.88 U	0.88 U	0.88 U	0.86 U
Tentatively Identified Compounds (TICs)						
Benzenesulfonamide, N-butyl-	ug/l					
Unknown	ug/l					

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Specific Groundwater Quality Criteria

TABLE 7F
SUMMARY OF POLYCHLORINATED BIPHENYLS (PCBs) IN GROUNDWATER
CANNON MINE PIT (CMP)
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	OB-02	OB-03	OB-04	OB-05	OB-06	OB-07	OB-12	OB-13	RW-2 (279-289)
PCB-1016	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U F	0.098 U
PCB-1221	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1232	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1242	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1248	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1254	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1260	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U F	0.084 U	0.084 U	0.084 U F	0.084 U
PCB-1262	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1268	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
Polychlorinated biphenyls, Total	ug/l	0.5	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U

Parameter	Result Unit	RW-2 (452-462)	RW-8 (163-173)	RW-8 (204-214)	RW-9A (85-95)	RW-10 (120-130)	RW-10 (185-195)	RW-10 (185-195) DUP	RW-10A (51-61)	RW-10A (75-85)	SC-2
PCB-1016	ug/l	0.098 U	0.098 U	0.098 U	0.12 U	0.12 U	0.1 U	0.1 U	0.13 U	0.098 U	0.098 U
PCB-1221	ug/l	0.098 U	0.098 U	0.098 U	0.12 U	0.12 U	0.1 U	0.1 U	0.13 U	0.098 U	0.098 U
PCB-1232	ug/l	0.098 U	0.098 U	0.098 U	0.12 U	0.12 U	0.1 U	0.1 U	0.13 U	0.098 U	0.098 U
PCB-1242	ug/l	0.098 U	0.098 U	0.098 U	0.12 U	0.12 U	0.1 U	0.1 U	0.13 U	0.098 U	0.098 U
PCB-1248	ug/l	0.77	0.098 U	0.098 U	0.12 U	0.12 U	0.1 U	0.1 U	0.13 U	0.098 U	0.098 U
PCB-1254	ug/l	0.084 U	0.084 U	0.084 U	0.099 U	0.1 U	0.089 U	0.088 U	0.11 U	0.084 U	0.084 U
PCB-1260	ug/l	0.084 U	0.084 U	0.084 U	0.099 U	0.1 U	0.089 U	0.088 U	0.11 U	0.084 U	0.084 U
PCB-1262	ug/l	0.084 U	0.084 U	0.084 U	0.099 U	0.1 U	0.089 U	0.088 U	0.11 U	0.084 U	0.084 U
PCB-1268	ug/l	0.084 U	0.084 U	0.084 U	0.099 U	0.1 U	0.089 U	0.088 U	0.11 U	0.084 U	0.084 U
Polychlorinated biphenyls, Total	ug/l	0.77	0.098 U	0.098 U	0.12 U	0.12 U	0.1 U	0.1 U	0.13 U	0.098 U	0.098 U

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 8A
SUMMARY OF DETECTED ORGANIC COMPOUNDS IN GROUNDWATER
SALLY'S POND AREA
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

VOC Parameter	Result Unit	NJGWQS ug/l	RW-12 (55-65)	RW-12 (130-140)
Acetone	ug/l	6000	12 B	6.5 B
Carbon disulfide	ug/l	700	1.1	0.6 J
Cyclohexane	ug/l			0.54 J
Toluene	ug/l	600	1.9	
VOC Tentatively Identified Compounds (TICs)				
None				

SVOC Parameter	Result Unit	NJGWQS ug/l	OB-10	OB-29	RW-12 (55-65)
1,4-Dioxane[1]	ug/L	0.4	0.172	0.156	
Bis(2-ethylhexyl) phthalate	ug/l	3			2.2
Di-n-butyl phthalate	ug/l	700			1.9 UB
Isophorone	ug/l	40			2.1 J
Phenol	ug/l	2000			6.3 J
SVOC Tentatively Identified Compounds (TICs)					
None					
PCBs					
PCB-1248	ug/l				0.33 J
Polychlorinated biphenyls, Total	ug/l	0.5			0.33 J

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Specific Groundwater Quality Criteria

TABLE 8B
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
SALLY'S POND AREA
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	OB-10	OB-29	RW-12 (55-65)	RW-12 (130-140)
Aluminum	mg/L	0.2	0.0135 U	1.18	0.156	0.877
Aluminum Dissolved	mg/L	0.2	0.0135 U	0.0135 U	0.15	0.506
Antimony	mg/L	0.006	0.00076 U	0.00076 U	0.00076 U	0.00062 U
Antimony Dissolved	mg/L	0.006	0.00076 U	0.00076 U	0.00076 U	0.00062 U
Arsenic	mg/L	0.003	0.00071 U	0.00071 U	0.012	0.0135
Arsenic Dissolved	mg/L	0.003	0.00071 U	0.00071 U	0.0139	0.015
Barium	mg/L	6	0.0069	0.0135	0.0206	0.0151
Barium Dissolved	mg/L	6	0.0064	0.0066	0.0221	0.0082
Beryllium	mg/L	0.001	0.00029 U	0.00029 U	0.00029 U	0.00024 U
Beryllium Dissolved	mg/L	0.001	0.00029 U	0.00029 U	0.00029 U	0.00024 U
Cadmium	mg/L	0.004	0.00072 U	0.00072 U	0.00072 U	0.00071 U
Cadmium Dissolved	mg/L	0.004	0.00072 U	0.00072 U	0.00072 U	0.00071 U
Calcium	mg/L		14	14.1	61.8	38.5
Calcium Dissolved	mg/L		13.7	13.8	64.1	35.5
Chromium	mg/L	0.07	0.0015 U	0.0021 J	0.0015 U	0.0013 U
Chromium Dissolved	mg/L	0.07	0.0015 U	0.0015 U	0.0015 U	0.0013 U
Cobalt	mg/L	0.1	0.0015 U	0.0015 U	0.0015 U	0.0013 U
Cobalt Dissolved	mg/L	0.1	0.0015 U	0.0015 U	0.0015 U	0.0013 U
Copper	mg/L	1.3	0.0016 U	0.0039 J	0.0016 U	0.0014 U
Copper Dissolved	mg/L	1.3	0.0016 U	0.0016 U	0.0016 U	0.0014 U
Cyanide, Total	mg/L	0.1	0.002 U	0.002 U	0.002 U	0.002 U
Iron	mg/L	0.3	0.187	1.53	0.0491 U	0.4
Iron Dissolved	mg/L	0.3	0.0491 U	0.0491 U	0.0491 U	0.0424 U
Lead	mg/L	0.005	0.00044 U	0.00044 U	0.00044 U	0.00041 J
Lead Dissolved	mg/L	0.005	0.00044 U	0.00044 U	0.00044 U	0.00038 U
Magnesium	mg/L		4.25	4.57	0.484	0.71
Magnesium Dissolved	mg/L		3.84	3.86	0.59	0.0636 U
Manganese	mg/L	0.05	0.0262	0.0366	0.003 U	0.0119
Manganese Dissolved	mg/L	0.05	0.003 U	0.003 U	0.003 U	0.0025 U

TABLE 8B
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN GROUNDWATER
SALLY'S POND AREA
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	OB-10	OB-29	RW-12 (55-65)	RW-12 (130-140)
Mercury	mg/L	0.002	0.00014 U	0.00014 U	0.00014 U	0.00017 U
Mercury Dissolved	mg/L	0.002	0.00014 U	0.00014 U	0.00014 U	0.00017 U
Nickel	mg/L	0.1	0.0016 U	0.0024 J	0.0021 J	0.004
Nickel Dissolved	mg/L	0.1	0.0016 U	0.0016 U	0.0017 J	0.0014 U
Potassium	mg/L		1.3	1.52	23.8	9.7
Potassium Dissolved	mg/L		1.26	1.3	23.6	8.73
Selenium	mg/L	0.04	0.00079 U	0.00079 U	0.0063 J	0.00092 J
Selenium Dissolved	mg/L	0.04	0.00079 U	0.00079 U	0.0071 J	0.0012 J
Silver	mg/L	0.04	0.0015 U	0.0015 U	0.0015 U	0.0013 U
Silver Dissolved	mg/L	0.04	0.0015 U	0.0015 U	0.0015 U	0.0013 U
Sodium	mg/L	50	3.86	3.89	128	84.2
Sodium Dissolved	mg/L	50	3.31	3.32	140	85.1
Thallium	mg/L	0.002	0.00031 U	0.00031 U	0.00031 U	0.00026 U
Thallium Dissolved	mg/L	0.002	0.00031 U	0.00031 U	0.00031 U	0.00026 U
Vanadium	mg/L		0.0014 U	0.0023 J	0.0023 J	0.0019 U
Vanadium Dissolved	mg/L		0.0014 U	0.0014 U	0.002 J	0.0019 U
Zinc	mg/L	2	0.0065 U	0.0079 J	0.0065 U	0.0422
Zinc Dissolved	mg/L	2	0.0065 U	0.0065 U	0.0065 U	0.007 U
Wet Chemistry						
Alkalinity	mg/l		52.1	50.1	98.5	129
Bicarbonate Alkalinity as CaCO3	mg/l		52.1	50.1	5 U	5 U
Chloride	mg/l	250	4.41	4.34	51.1 D	183 D
Sulfate	mg/l	250	5.63	5.63	291 D	1390 D

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 8C
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
SALLY'S POND AREA
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	OB-10	OB-29	RW-12 (55-65)	RW-12 (130-140)
1,1,1-Trichloroethane	ug/l	30	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	1	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l		0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	3	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U
1,1-Dichloroethene	ug/l	1	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l		0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l	0.03	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	ug/l	9	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l	0.02	0.007 U	0.007 U	0.007 U	0.007 U
1,2-Dichlorobenzene	ug/l	600	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloroethane	ug/l	2	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	ug/l	1	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	600	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	ug/l	75	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone (MEK)	ug/l	300	2.2 U	2.2 U	2.2 U	2.2 U
2-Hexanone	ug/l	300	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l		0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l	6000	1.1 U	1.1 U	12 B	6.5 B
Benzene	ug/l	1	0.09 U	0.09 U	0.09 U	0.09 U
Bromoform	ug/l	4	0.18 U	0.18 U	0.18 UJ	0.18 UJ
Bromomethane	ug/l	10	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l	700	0.22 U	0.22 U	1.1	0.6 J
Carbon tetrachloride	ug/l	1	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U
Chlorobromomethane	ug/l		0.3 U	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane[1]	ug/l	5	0.37 U	0.37 U	0.37 U	0.37 U
Chloroform	ug/l	70	0.22 U	0.22 U	0.22 U	0.22 U

TABLE 8C
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN GROUNDWATER
SALLY'S POND AREA
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	OB-10	OB-29	RW-12 (55-65)	RW-12 (130-140)
Chloromethane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l	70	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,3-Dichloropropene	ug/l		0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l		0.26 U	0.26 U	0.26 U	0.54 J
Dichlorobromomethane	ug/l	1	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l	1000	0.14 U	0.14 U	0.14 U	0.14 UJ
Ethylbenzene	ug/l	700	0.3 U	0.3 U	0.3 U	0.3 U
Ethylene Dibromide	ug/l	0.03	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l	700	0.32 U	0.32 U	0.32 U	0.32 U
Methyl acetate	ug/l	7000	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l		0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U
Methylene Chloride	ug/l	3	0.21 U	0.21 U	0.21 U	0.21 U
Styrene	ug/l	100	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	1	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	ug/l	600	0.25 U	0.25 U	1.9	0.25 U
trans-1,2-Dichloroethene	ug/l	100	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l		0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	ug/l	2000	0.15 U	0.15 U	0.15 U	0.15 UJ
Vinyl chloride	ug/l	1	0.06 U	0.06 U	0.06 U	0.06 U
Xylenes, Total	ug/l	1000	0.28 U	0.28 U	0.28 U	0.28 U
Tentatively Identified Compounds (TICs)						
None						

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Generic Groundwater Quality Criteria

TABLE 8D
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
SALLY'S POND AREA
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	OB-10	OB-29	RW-12 (55-65)	RW-12 (130-140)
1,1'-Biphenyl	ug/l	400	0.64 U	0.66 U	0.66 U	0.66 U
1,2,4,5-Tetrachlorobenzene	ug/l		0.44 U	0.45 U	0.45 U	0.45 U
1,4-Dioxane[1]	ug/L	0.4	0.172	0.156	0.0815 U	0.0781 U
2,2'-oxybis[1-chloropropane]	ug/l	300	0.95 U	0.97 U	0.97 U	0.97 U
2,3,4,6-Tetrachlorophenol	ug/l	200	0.7 U	0.72 U	0.72 U	0.72 U
2,4,5-Trichlorophenol	ug/l	700	0.5 U	0.51 U	0.51 U	0.51 U
2,4,6-Trichlorophenol	ug/l	20	0.54 U	0.55 U	0.55 U	0.55 U
2,4-Dichlorophenol	ug/l	20	0.64 U	0.66 U	0.66 U	0.66 U
2,4-Dimethylphenol	ug/l	100	0.93 U	0.95 U	0.95 U	0.95 U
2,4-Dinitrophenol	ug/l	40	2.4 U	2.5 U	2.5 U	2.5 UJ
2,4-Dinitrotoluene	ug/l		1.1 U	1.1 U	1.1 U	1.1 U
2,6-Dinitrotoluene	ug/l		0.9 U	0.92 U	0.92 U	0.92 U
2-Chloronaphthalene	ug/l	600	0.62 U	0.64 U	0.64 U	0.64 U
2-Chlorophenol	ug/l	40	0.76 U	0.77 U	0.77 U	0.77 U
2-Methylnaphthalene	ug/l	30	0.9 U	0.92 U	0.92 U	0.92 U
2-Methylphenol	ug/l		1.3 UJ	1.3 UJ	1.3 UJ	1.3 U
2-Nitroaniline	ug/l		0.66 U	0.68 U	0.68 U	0.68 U
2-Nitrophenol	ug/l		0.6 U	0.61 U	0.61 U	0.61 U
3,3'-Dichlorobenzidine	ug/l	30	1.1 U	1.1 U	1.1 U	1.1 U
3-Nitroaniline	ug/l		0.84 U	0.85 U	0.85 U	0.85 U
4,6-Dinitro-2-methylphenol	ug/l	1	2.1 U	2.1 U	2.1 U	2.1 U
4-Bromophenyl phenyl ether	ug/l		1 U	1.1 U	1.1 U	1.1 U
4-Chloro-3-methylphenol	ug/l	100	0.78 U	0.79 U	0.79 U	0.79 U
4-Chloroaniline	ug/l		0.74 U	0.76 U	0.76 U	0.76 U
4-Chlorophenyl phenyl ether	ug/l		0.98 U	1 U	1 U	1 U
4-Methylphenol	ug/l		0.89 U	0.91 U	0.91 U	0.91 U
4-Nitroaniline	ug/l		0.49 U	0.5 U	0.5 U	0.5 U
4-Nitrophenol	ug/l		4.7 U	4.8 U	4.8 U	4.8 U
Acenaphthene	ug/l	400	0.9 U	0.92 U	0.92 U	0.92 U
Acenaphthylene	ug/l	100	0.66 U	0.68 U	0.68 U	0.68 U
Acetophenone	ug/l	700	1.1 U	1.1 U	1.1 U	1.1 U
Anthracene	ug/l	2000	0.58 U	0.59 U	0.59 U	0.59 U
Atrazine	ug/l	3	0.79 U	0.8 U	0.8 U	0.8 U
Benzaldehyde	ug/l		0.88 U	0.9 U	0.9 U	0.9 U
Benzo[a]anthracene	ug/l	0.1	0.038 U	0.039 U	0.039 U	0.039 U
Benzo[a]pyrene	ug/l	0.1	0.027 U	0.027 U	0.027 U	0.027 UJ
Benzo[b]fluoranthene	ug/l	0.2	0.012 U	0.013 U	0.013 U	0.013 UJ
Benzo[g,h,i]perylene	ug/l	100	0.77 U	0.78 U	0.78 U	0.78 U

TABLE 8D
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN GROUNDWATER
SALLY'S POND AREA
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	OB-10	OB-29	RW-12 (55-65)	RW-12 (130-140)
Benzo[k]fluoranthene	ug/l	0.5	0.18 U	0.19 U	0.19 U	0.19 U
Bis(2-chloroethoxy)methane	ug/l		0.7 U	0.72 U	0.72 U	0.72 U
Bis(2-chloroethyl)ether	ug/l	7	0.0092 U	0.0094 U	0.0094 U	0.0094 UJ
Bis(2-ethylhexyl) phthalate	ug/l	3	0.73 U	0.75 U	2.2	0.75 U
Butyl benzyl phthalate	ug/l	100	0.61 U	0.63 U	0.63 U	0.63 U
Caprolactam	ug/l	5000	1.1 U	1.1 U	1.1 UJ	1.1 U
Carbazole	ug/l		0.87 U	0.89 U	0.89 U	0.89 U
Chrysene	ug/l	5	0.68 U	0.7 U	0.7 U	0.7 U
Dibenz(a,h)anthracene	ug/l	0.3	0.022 U	0.023 U	0.023 U	0.023 UJ
Dibenzofuran	ug/l		0.87 U	0.89 U	0.89 U	0.89 U
Diethyl phthalate	ug/l	6000	1 U	1 U	1 U	1 U
Dimethyl phthalate	ug/l	100	1 U	1 U	1 U	1 U
Di-n-butyl phthalate	ug/l	700	0.84 U	0.85 U	1.9 UB	0.85 U
Di-n-octyl phthalate	ug/l	100	0.7 U	0.72 U	0.72 U	0.72 U
Fluoranthene	ug/l	300	0.73 U	0.75 U	0.75 U	0.75 U
Fluorene	ug/l	300	0.82 U	0.83 U	0.83 U	0.83 U
Hexachlorobenzene	ug/l	0.02	0.0092 U	0.0094 U	0.0094 U	0.0094 U
Hexachlorobutadiene	ug/l	1	0.78 U	0.79 U	0.79 U	0.79 U
Hexachlorocyclopentadiene	ug/l	40	0.62 U	0.64 U	0.64 U	0.64 U
Hexachloroethane	ug/l	7	0.092 U	0.094 U	0.094 U	0.094 U
Indeno[1,2,3-cd]pyrene	ug/l	0.2	0.028 U	0.028 U	0.028 U	0.028 U
Isophorone	ug/l	40	0.68 U	0.7 U	2.1 J	0.7 U
Naphthalene	ug/l	300	0.82 U	0.83 U	0.83 U	0.83 U
Nitrobenzene	ug/l	6	0.5 U	0.51 U	0.51 U	0.51 U
N-Nitrosodi-n-propylamine	ug/l	10	0.85 U	0.86 U	0.86 U	0.86 U
N-Nitrosodiphenylamine	ug/l	10	0.76 U	0.77 U	0.77 U	0.77 U
Pentachlorophenol	ug/l	0.3	0.079 U	0.08 U	0.08 U	0.08 U
Phenanthrene	ug/l	100	0.66 U	0.68 U	0.68 U	0.68 U
Phenol	ug/l	2000	0.42 U	0.43 U	6.3 J	0.43 U
Pyrene	ug/l	200	0.85 U	0.86 U	0.86 U	0.86 U
Tentatively Identified Compounds (TICs)						
None						

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Specific Groundwater Quality Criteria

TABLE 8E
SUMMARY OF POLYCHLORINATED BIPHENYLS (PCBs) IN GROUNDWATER
SALLY'S POND AREA
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	OB-10	OB-29	RW-12 (55-65)	RW-12 (130-140)
PCB-1016	ug/l		0.098 U	0.098 U	0.098 U	0.1 U
PCB-1221	ug/l		0.098 U	0.098 U	0.098 U	0.1 U
PCB-1232	ug/l		0.098 U	0.098 U	0.098 U	0.1 U
PCB-1242	ug/l		0.098 U	0.098 U	0.098 U	0.1 U
PCB-1248	ug/l		0.098 U	0.098 U	0.33 J	0.1 U
PCB-1254	ug/l		0.084 U	0.084 U	0.084 U	0.088 U
PCB-1260	ug/l		0.084 U	0.084 U	0.084 U	0.088 U
PCB-1262	ug/l		0.084 U	0.084 U	0.084 U	0.088 U
PCB-1268	ug/l		0.084 U	0.084 U	0.084 U	0.088 U
Polychlorinated biphenyls, Total	ug/l	0.5	0.098 U	0.098 U	0.33 J	0.1 U

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 9A
SUMMARY OF DECTECTED ORGANIC COMPOUNDS IN MINE WATER
CANNON AND PETERS MINE
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

VOC Parameter	Result Unit	NJGWQS ug/l	CM-50	CM-100	CM-160	CM-275	PM Air Shaft-50	PM Air Shaft-180	PM Air Shaft-230
1,1-Dichloroethane	ug/l	50						0.64 J	
1,2-Dichlorobenzene	ug/l	600							0.66 J
1,2-Dichloroethane	ug/l	2							0.33 J
1,3-Dichlorobenzene	ug/l	600							2.7
1,4-Dichlorobenzene	ug/l	75						0.67 J	7.7
Acetone	ug/l	6000	2.9 UB	5.6 B	6.4 B	5.6 B			
Benzene	ug/l	1						5.9	29
Carbon disulfide	ug/l	700						0.24 J	
Chlorobenzene	ug/l	50						1.5	20
Chloroethane[1]	ug/l	5						44	17
Chloroform	ug/l	70	2.3	0.26 J					
cis-1,2-Dichloroethene	ug/l	70						0.31 J	
Cyclohexane	ug/l							1.4	3.5
Isopropylbenzene	ug/l	700						1.6	13
Methylcyclohexane	ug/l							0.47 J	0.73 J
Methylene Chloride	ug/l	3	0.7 J	0.49 J	0.8 J	0.86 J	0.46 J	0.25 J	0.81 J
Toluene	ug/l	600							0.28 J
Vinyl chloride	ug/l	1						0.12 J	
Xylenes, Total	ug/l	1000		0.42 J	0.65 J	0.43 J		1 J	1.1 J
VOC Tentatively Identified Compounds (TICs)									
Indane	ug/l								5.7 NJ
Naphthalene	ug/l	300							5.4 NJ

TABLE 9A
SUMMARY OF DECTECTED ORGANIC COMPOUNDS IN MINE WATER
CANNON AND PETERS MINE
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

SVOC Parameter	Result Unit	NJGWQS ug/l	CM-50	CM-100	CM-160	CM-275	PM Air Shaft-50	PM Air Shaft-180	PM Air Shaft-230
1,4-Dioxane[2]	ug/L	0.4			0.0786 J	0.163		20.3/16.6*	146/107*
Bis(2-ethylhexyl) phthalate	ug/l	3	1.7 J		1.5 J	2.8	1.5 UB	2.2 B	1.5 UB
Di-n-butyl phthalate	ug/l	700	1.7 UB		1.5 UB	2.5 UB	1.5 UB	1.7 UB	1.7 UB
Naphthalene	ug/l	300						1.4 J	5.7 J
Pentachlorophenol	ug/l	0.3	0.1 J	0.11 J	0.11 J	0.12 J			
SVOC Tentatively Identified Compounds (TICs)									
None									
PCBs									
None	ug/l								

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

*Reported 1,4-Dioxane results via Methods 8270 SIM by Alpha Analytical and Method 522 by Pace Analytical, respectively. See report text for additional discussion.

[1] Interim Generic Groundwater Quality Criteria

TABLE 9B
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN MINE WATER
CANNON AND PETERS MINE
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	CM-50	CM-100	CM-160	CM-275	PM Air Shaft-50	PM Air Shaft-180	PM Air Shaft-230
Aluminum	mg/L	0.2	0.0211 J	0.0439	0.0264 J	0.0504	0.08	0.0325 J	0.0547
Aluminum Dissolved	mg/L	0.2	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0284 J	0.0182 U	0.0182 U
Antimony	mg/L	0.006	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00062 U	0.00062 U	0.00062 U
Antimony Dissolved	mg/L	0.006	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00062 U	0.00062 U	0.00062 U
Arsenic	mg/L	0.003	0.00071 U	0.00071 U	0.00071 U	0.00094 J	0.00064 U	0.00064 U	0.00064 U
Arsenic Dissolved	mg/L	0.003	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00064 U	0.00064 U	0.00064 U
Barium	mg/L	6	0.0408	0.0443	0.0523	0.134	0.0101	0.457	0.553
Barium Dissolved	mg/L	6	0.0438	0.0375	0.0482	0.0997	0.0094	0.305	0.137
Beryllium	mg/L	0.001	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00024 U	0.00024 U	0.00024 U
Beryllium Dissolved	mg/L	0.001	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00024 U	0.00024 U	0.00024 U
Cadmium	mg/L	0.004	0.00072 U	0.00072 U	0.0108	0.0132	0.00071 U	0.00071 U	0.00071 U
Cadmium Dissolved	mg/L	0.004	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00071 U	0.00071 U	0.00071 U
Calcium	mg/L		36.5	38.3	44.9	89.4	6.65	48.1	109
Calcium Dissolved	mg/L		38.3	38.2	47.5	93.8	6.29	45.3	97.4
Chromium	mg/L	0.07	0.0015 U	0.002 J	0.0048	0.0255	0.0013 U	0.0032 J	0.0033 J
Chromium Dissolved	mg/L	0.07	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.0013 U
Cobalt	mg/L	0.1	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.0013 U
Cobalt Dissolved	mg/L	0.1	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.0013 U
Copper	mg/L	1.3	0.0016 U	0.0017 J	0.0065	0.0403	0.0027 J	0.0018 J	0.0014 U
Copper Dissolved	mg/L	1.3	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0022 J	0.0014 U	0.0014 U
Cyanide, Total	mg/L	0.1	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U F	0.002 U	0.002 U
Iron	mg/L	0.3	1.18	8.65	12.9	21.9	0.176	89.6	139
Iron Dissolved	mg/L	0.3	0.136	0.0491 U	0.0491 U	2.09	0.0805 J	19.4	22.6
Lead	mg/L	0.005	0.00047 J	0.00051 J	0.163	0.192	0.0017	0.131	0.0082
Lead Dissolved	mg/L	0.005	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 J	0.00038 U	0.00038 U
Magnesium	mg/L		9.66	11.1	13.6	21.1	1.61	4.73	13
Magnesium Dissolved	mg/L		10.6	11.7	15	23.2	1.67	4.41	11.6
Manganese	mg/L	0.05	0.121	0.275	0.453	1.23	0.0048 J	0.955	2.34

TABLE 9B
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN MINE WATER
CANNON AND PETERS MINE
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Units	NJGWQS mg/l	CM-50	CM-100	CM-160	CM-275	PM Air Shaft-50	PM Air Shaft-180	PM Air Shaft-230
Manganese Dissolved	mg/L	0.05	0.109	0.253	0.396	1.16	0.0041 J	0.826	1.86
Mercury	mg/L	0.002	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00017 U	0.00017 U	0.00017 U
Mercury Dissolved	mg/L	0.002	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00017 U	0.00017 U	0.00017 U
Nickel	mg/L	0.1	0.0016 U	0.0016 U	0.0022 J	0.0073	0.0014 U	0.0014 U	0.0014 U
Nickel Dissolved	mg/L	0.1	0.0016 U	0.0016 U	0.0017 J	0.0044	0.0014 U	0.0014 U	0.0014 U
Potassium	mg/L		2.09	2.11	2.15	7.58	0.587	2.17	8.03
Potassium Dissolved	mg/L		2	2.08	2.09	7.31	0.581	2.04	8.26
Selenium	mg/L	0.04	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00073 U	0.00073 U	0.00073 U
Selenium Dissolved	mg/L	0.04	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00073 U	0.00073 U	0.00073 U
Silver	mg/L	0.04	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.0013 U
Silver Dissolved	mg/L	0.04	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0013 U	0.0013 U	0.0013 U
Sodium	mg/L	50	77.4	80.5	80.4	53.6	2.51	5.75	32.4
Sodium Dissolved	mg/L	50	83.6	83.2	87.1	58.3	2.73	5.76	31.5
Thallium	mg/L	0.002	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00026 U	0.00026 U	0.00026 U
Thallium Dissolved	mg/L	0.002	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00026 U	0.00026 U	0.00026 U
Vanadium	mg/L		0.0014 U	0.0014 U	0.0014 U	0.0014 J	0.0019 U	0.0062	0.0037 J
Vanadium Dissolved	mg/L		0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0019 U	0.0019 U	0.0019 U
Zinc	mg/L	2	0.0657	1.07	3.01	4.26	0.405	3.09	0.294
Zinc Dissolved	mg/L	2	0.025	0.046	0.402	0.532	0.428	1.5	0.175
Wet Chemistry									
Alkalinity	mg/l		107	125	135	352	34.2	173	388
Bicarbonate Alkalinity as CaCO3	mg/l		107	125	135	352	5 U	173	388
Chloride	mg/l	250	142 D	146 D	168 D	85.9 D	1.32	2.66 D	11.6 D
Sulfate	mg/l	250	13.6	6.5	2.94	0.71	7.3	1.22	0.67

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 9C
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN MINE WATER
CANNON AND PETERS MINE
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	CM-50	CM-100	CM-160	CM-275	PM Air Shaft-50	PM Air Shaft-180	PM Air Shaft-230
1,1,1-Trichloroethane	ug/l	30	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	1	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l		0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	3	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.64 J	0.24 U
1,1-Dichloroethene	ug/l	1	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l		0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l	0.03	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	ug/l	9	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l	0.02	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
1,2-Dichlorobenzene	ug/l	600	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.66 J
1,2-Dichloroethane	ug/l	2	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.33 J
1,2-Dichloropropane	ug/l	1	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	600	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	2.7
1,4-Dichlorobenzene	ug/l	75	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.67 J	7.7
2-Butanone (MEK)	ug/l	300	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
2-Hexanone	ug/l	300	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l		0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l	6000	2.9 UB	5.6 B	6.4 B	5.6 B	1.1 U	1.1 U	1.1 U
Benzene	ug/l	1	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	5.9	29
Bromoform	ug/l	4	0.18 UJ	0.18 UJ	0.18 UJ	0.18 UJ	0.18 U	0.18 U	0.18 U
Bromomethane	ug/l	10	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l	700	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.24 J	0.22 U
Carbon tetrachloride	ug/l	1	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	50	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	1.5	20
Chlorobromomethane	ug/l		0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane[1]	ug/l	5	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	44	17
Chloroform	ug/l	70	2.3		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U

TABLE 9C
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN MINE WATER
CANNON AND PETERS MINE
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	CM-50	CM-100	CM-160	CM-275	PM Air Shaft-50	PM Air Shaft-180	PM Air Shaft-230
Chloromethane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l	70	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.31 J	0.26 U
cis-1,3-Dichloropropene	ug/l		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l		0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	1.4	3.5
Dichlorobromomethane	ug/l	1	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l	1000	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Ethylbenzene	ug/l	700	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Ethylene Dibromide	ug/l	0.03	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l	700	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	1.6	13
Methyl acetate	ug/l	7000	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l		0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.47 J	0.73 J
Methylene Chloride	ug/l	3	0.7 J	0.49 J	0.8 J	0.86 J	0.46 J	0.25 J	0.81 J
Styrene	ug/l	100	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	1	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	ug/l	600	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.28 J
trans-1,2-Dichloroethene	ug/l	100	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l		0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	ug/l	2000	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Vinyl chloride	ug/l	1	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.12 J	0.06 U
Xylenes, Total	ug/l	1000	0.28 U	0.42 J	0.65 J	0.43 J	0.28 U	1 J	1.1 J
Tentatively Identified Compounds (TICs)									
Indane	ug/l								5.7 NJ
Naphthalene	ug/l	300							5.4 NJ

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

[1] Interim Generic Groundwater Quality Criteria

TABLE 9D
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN MINE WATER
CANNON AND PETERS MINE
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	CM-50	CM-100	CM-160	CM-275	PM Air Shaft-50	PM Air Shaft-180	PM Air Shaft-230
1,1'-Biphenyl	ug/l	400	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.63 U	0.63 U
1,2,4,5-Tetrachlorobenzene	ug/l		0.45 U	0.45 U	0.45 U	0.45 U	0.45 UJ	0.43 UJ	0.43 UJ
1,4-Dioxane[1]	ug/L	0.4	0.0735 U	0.0735 U	0.0786 J	0.163	0.0735 U	20.3/16.6*	146/107*
2,2'-oxybis[1-chloropropane]	ug/l	300	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.93 U	0.93 U
2,3,4,6-Tetrachlorophenol	ug/l	200	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.69 U	0.69 U
2,4,5-Trichlorophenol	ug/l	700	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.49 U	0.49 U
2,4,6-Trichlorophenol	ug/l	20	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.53 U	0.53 U
2,4-Dichlorophenol	ug/l	20	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.63 U	0.63 U
2,4-Dimethylphenol	ug/l	100	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.91 U	0.91 U
2,4-Dinitrophenol	ug/l	40	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.4 U	2.4 U
2,4-Dinitrotoluene	ug/l		1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1 U	1 U
2,6-Dinitrotoluene	ug/l		0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.88 U	0.88 U
2-Chloronaphthalene	ug/l	600	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.61 U	0.61 U
2-Chlorophenol	ug/l	40	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.74 U	0.74 U
2-Methylnaphthalene	ug/l	30	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.88 U	0.88 U
2-Methylphenol	ug/l		1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ
2-Nitroaniline	ug/l		0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.65 U	0.65 U
2-Nitrophenol	ug/l		0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.59 U	0.59 U
3,3'-Dichlorobenzidine	ug/l	30	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1 U	1 U
3-Nitroaniline	ug/l		0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.82 U	0.82 U
4,6-Dinitro-2-methylphenol	ug/l	1	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2 U	2 U
4-Bromophenyl phenyl ether	ug/l		1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1 U	1 U
4-Chloro-3-methylphenol	ug/l	100	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.76 U	0.76 U
4-Chloroaniline	ug/l		0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.73 U	0.73 U
4-Chlorophenyl phenyl ether	ug/l		1 U	1 U	1 U	1 U	1 U	0.96 U	0.96 U
4-Methylphenol	ug/l		0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.87 U	0.87 U
4-Nitroaniline	ug/l		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.48 U	0.48 U

TABLE 9D
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN MINE WATER
CANNON AND PETERS MINE
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	CM-50	CM-100	CM-160	CM-275	PM Air Shaft-50	PM Air Shaft-180	PM Air Shaft-230
4-Nitrophenol	ug/l		4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.7 U	4.7 U
Acenaphthene	ug/l	400	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.88 U	0.88 U
Acenaphthylene	ug/l	100	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.65 U	0.65 U
Acetophenone	ug/l	700	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1 U	1 U
Anthracene	ug/l	2000	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.57 U	0.57 U
Atrazine	ug/l	3	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.77 U	0.77 U
Benzaldehyde	ug/l		0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.86 U	0.86 U
Benzo[a]anthracene	ug/l	0.1	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.037 U	0.037 U
Benzo[a]pyrene	ug/l	0.1	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.026 U	0.026 U
Benzo[b]fluoranthene	ug/l	0.2	0.013 U	0.013 U	0.013 U	0.013 U	0.013 U	0.012 U	0.012 U
Benzo[g,h,i]perylene	ug/l	100	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.75 U	0.75 U
Benzo[k]fluoranthene	ug/l	0.5	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U	0.18 U
Bis(2-chloroethoxy)methane	ug/l		0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.69 U	0.69 U
Bis(2-chloroethyl)ether	ug/l	7	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.009 U	0.009 U
Bis(2-ethylhexyl) phthalate	ug/l	3	1.7 J	0.75 U	1.5 J	2.8	1.5 UB	2.2 B	1.5 UB
Butyl benzyl phthalate	ug/l	100	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.6 U	0.6 U
Caprolactam	ug/l	5000	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ
Carbazole	ug/l		0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.85 U	0.85 U
Chrysene	ug/l	5	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.67 U	0.67 U
Dibenz(a,h)anthracene	ug/l	0.3	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U	0.022 U	0.022 U
Dibenzofuran	ug/l		0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.85 U	0.85 U
Diethyl phthalate	ug/l	6000	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dimethyl phthalate	ug/l	100	1 U	1 U	1 U	1 U	1 U	0.98 U	0.98 U
Di-n-butyl phthalate	ug/l	700	1.7 UB	0.85 U	1.5 UB	2.5 UB	1.5 UB	1.7 UB	1.7 UB
Di-n-octyl phthalate	ug/l	100	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.69 U	0.69 U
Fluoranthene	ug/l	300	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.72 U	0.72 U
Fluorene	ug/l	300	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.8 U	0.8 U
Hexachlorobenzene	ug/l	0.02	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 UJ	0.009 UJ	0.009 UJ

TABLE 9D
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN MINE WATER
CANNON AND PETERS MINE
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	CM-50	CM-100	CM-160	CM-275	PM Air Shaft-50	PM Air Shaft-180	PM Air Shaft-230
Hexachlorobutadiene	ug/l	1	0.79 U	0.79 U	0.79 U	0.79 U	0.79 UJ	0.76 UJ	0.76 UJ
Hexachlorocyclopentadiene	ug/l	40	0.64 U	0.64 U	0.64 U	0.64 U	0.64 UJ	0.61 UJ	0.61 UJ
Hexachloroethane	ug/l	7	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U	0.09 U	0.09 U
Indeno[1,2,3-cd]pyrene	ug/l	0.2	0.028 U	0.028 U	0.028 U	0.028 U	0.028 U	0.027 U	0.027 U
Isophorone	ug/l	40	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.67 U	0.67 U
Naphthalene	ug/l	300	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	1.4 J	5.7 J
Nitrobenzene	ug/l	6	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.49 U	0.49 U
N-Nitrosodi-n-propylamine	ug/l	10	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.83 U	0.83 U
N-Nitrosodiphenylamine	ug/l	10	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.74 U	0.74 U
Pentachlorophenol	ug/l	0.3	0.1 J	0.11 J	0.11 J	0.12 J	0.08 UJ	0.077 UJ	0.077 UJ
Phenanthrene	ug/l	100	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.65 U	0.65 U
Phenol	ug/l	2000	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.41 U	0.41 U
Pyrene	ug/l	200	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.83 U	0.83 U
Tentatively Identified Compounds (TICs)									
None									

[1] Interim Specific Groundwater Quality Criteria

*Reported 1,4-Dioxane results via Methods 8270 SIM by Alpha Analytical and Method 522 by Pace Analytical, respectively.

TABLE 9E
SUMMARY OF POLYCHLORINATED BIPHENYLS (PCBs) IN MINE WATER
CANNON AND PETERS MINE
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJGWQS ug/l	CM-50	CM-100	CM-160	CM-275	PM Air Shaft-50	PM Air Shaft-180	PM Air Shaft-230
PCB-1016	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1221	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1232	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1242	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1248	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1254	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1260	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1262	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1268	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
Polychlorinated biphenyls, Total	ug/l	0.5	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U

TABLE 10A
SUMMARY OF DETECTED ORGANIC COMPOUNDS IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

VOC Parameter	Result Unit	NJSWQS ug/l	PMP-Pond	PMP-Pond DUP	SR-3 Pond	SR-3 SEEP 1	SR-3 SEEP 2	SW-MRB-01	SW-MRB-02	SW-NOB-01
1,2-Dibromo-3-Chloropropane	ug/l									
Acetone	ug/l		4.8 UB	5.9 B	5.5 B	5.3 B	5.9 B	4.2 UB		5.5 B
Benzene	ug/l	0.15				0.38 J	0.61 J			
Chloroethane	ug/l					2.5	4.1			
Methylene Chloride	ug/l	2.5								
Toluene	ug/l	1300			0.36 J				0.39 J	
VOC Tentatively Identified Compounds (TICs)										
None										

SVOC Parameter	Result Unit	NJSWQS ug/l	PMP-Pond	PMP-Pond DUP	SR-3 Pond	SR-3 SEEP 1	SR-3 SEEP 2	SW-03	SW-04	SW-MRB-01
1,4-Dioxane	ug/L				2.94	3.43	3.5			
Bis(2-ethylhexyl) phthalate	ug/l	1.2	1.9 J	1.9 J	1.5 J			2 J	1.7 J	1.1 J
Di-n-butyl phthalate	ug/l	2000	1.9 UB	1.4 UB	1.3 J			1.9 J	1.3 J	
Pentachlorophenol	ug/l	0.27								
SVOC Tentatively Identified Compounds (TICs)										
None										
PCBs										
None										

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 10A
SUMMARY OF DETECTED ORGANIC COMPOUNDS IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

VOC Parameter	Result Unit	NJSWQS ug/l	SW-NOB-02	SW-PAB-00	SW-PAB-01	SW-PAB-01A	SW-PAB-02	SW-PAB-03	SW-PAB-04	SW-PMB-01
1,2-Dibromo-3-Chloropropane	ug/l									
Acetone	ug/l		6.6 B	4.6 UB	5.1 B	5.8 B	7.9 B	4.6 UB	8.2 B	6.8 B
Benzene	ug/l	0.15			0.12 J					
Chloroethane	ug/l				1.5					
Methylene Chloride	ug/l	2.5			0.38 J	0.53 J				
Toluene	ug/l	1300								
VOC Tentatively Identified Compounds (TICs)										
None										

SVOC Parameter	Result Unit	NJSWQS ug/l	SW-MRB-02	SW-MRB-03	SW-NOB-01	SW-NOB-02	SW-PAB-01	SW-PAB-01A	SW-PAB-02	SW-PAB-03
1,4-Dioxane	ug/L						1.4	2.32	1.2	0.442
Bis(2-ethylhexyl) phthalate	ug/l	1.2	3.1	2.1	2.3		1.4 J		3.2	1.9 J
Di-n-butyl phthalate	ug/l	2000	1.7 J	2 J	2.2 UB		0.89 J		2.8 UB	1.9 UB
Pentachlorophenol	ug/l	0.27				0.11 J				
SVOC Tentatively Identified Compounds (TICs)										
None										
PCBs										
None										

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 10A
SUMMARY OF DETECTED ORGANIC COMPOUNDS IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

VOC Parameter	Result Unit	NJSWQS ug/l	SW-PMB-02	SW-SP-01
1,2-Dibromo-3-Chloropropane	ug/l		0.0091 J	
Acetone	ug/l		4.2 UB	9.4 B
Benzene	ug/l	0.15		
Chloroethane	ug/l			
Methylene Chloride	ug/l	2.5		
Toluene	ug/l	1300		
VOC Tentatively Identified Compounds (TICs)				
None				

SVOC Parameter	Result Unit	NJSWQS ug/l	SW-PAB-04	SW-PMB-01	SW-PMB-02	SW-SP-01
1,4-Dioxane	ug/L		0.34			
Bis(2-ethylhexyl) phthalate	ug/l	1.2		4	2.2 J	4
Di-n-butyl phthalate	ug/l	2000		2.7 UB	2 UB	2.4 J
Pentachlorophenol	ug/l	0.27		0.12 J		
SVOC Tentatively Identified Compounds (TICs)						
None						
PCBs						
None						

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 10B
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	PMP-Pond	PMP-Pond DUP	SR-3 Pond	SR-3 SEEP 1	SR-3 SEEP 2	SW-03	SW-04	SW-11	SW-MRB-00	SW-MRB-01	SW-MRB-02
Aluminum	mg/L		0.0209 J	0.0201 J	0.0135 U	0.521	0.0313 J	0.0261 J	0.0135 U	0.014 J	0.0738	0.121	0.135
Aluminum Dissolved	mg/L		0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.063	0.0168 J	0.0257 J	0.0152 J	0.0151 J
Antimony	mg/L	0.0056	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U
Antimony Dissolved	mg/L	0.0056	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U
Arsenic	mg/L	0.000017	0.00071 U	0.00071 U	0.00071 U	0.0014 J	0.0008 J	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U
Arsenic Dissolved	mg/L	0.000017	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U
Barium	mg/L	2	0.1	0.101	0.116	0.327	0.264	0.0181	0.0183	0.0103	0.0089	0.0114	0.015
Barium Dissolved	mg/L	2	0.0997	0.102	0.0941	0.214	0.215	0.0161	0.0184	0.0096	0.008	0.0104	0.0111
Beryllium	mg/L	0.006	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U
Beryllium Dissolved	mg/L	0.006	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U
Cadmium	mg/L	0.0034	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U
Cadmium Dissolved	mg/L	0.0034	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U
Calcium	mg/L		20	19.9	28.7	27.3	26.8	18.3	36.8	11.5	4.04	4.45	6.35
Calcium Dissolved	mg/L		20.9	20.9	29.3	27.6	27.7	17.9	37.6	11.3	4.14	4.5	5.81
Chromium	mg/L	0.092	0.0015 U	0.0015 U	0.0015 U	0.0023 J	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Chromium Dissolved	mg/L	0.092	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Cobalt	mg/L		0.0015 U	0.0015 U	0.0015 U	0.0021 J	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Cobalt Dissolved	mg/L		0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Copper	mg/L	1.3	0.0016 U	0.0016 U	0.0016 U	0.0054	0.0016 U	0.0027 J	0.0016 J	0.0016 U	0.0019 J	0.0021 J	0.0016 U
Copper Dissolved	mg/L	1.3	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 J	0.0016 U
Cyanide, Total	mg/L	0.14	0.002 U	0.002 U	0.002 J	0.002 U	0.002 J	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U
Iron	mg/L		1.78	1.77	1.35	48.2	35.6	0.505	0.131	0.422	0.323	0.502	3.58
Iron Dissolved	mg/L		0.0613 J	0.0491 U	0.0491 U	0.0721 J	0.119 J	0.179	0.0491 U	0.242	0.0762 J	0.112 J	0.834
Lead	mg/L	0.005	0.00063 J	0.00044 U	0.00044 U	0.017	0.0009 J	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00068 J
Lead Dissolved	mg/L	0.005	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U
Magnesium	mg/L		3.32	3.31	4.78	4.38	4.13	6.35	9.84	3.31	1.69	1.61	2.1
Magnesium Dissolved	mg/L		3.29	3.3	4.76	4.19	4.19	6.1	10.6	3.4	1.7	1.56	2.03

TABLE 10B
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	PMP-Pond	PMP-Pond DUP	SR-3 Pond	SR-3 SEEP 1	SR-3 SEEP 2	SW-03	SW-04	SW-11	SW-MRB-00	SW-MRB-01	SW-MRB-02
Manganese	mg/L		0.22	0.22	0.577	1.03	0.89	0.193	0.0316	0.128	0.0259	0.0783	0.697
Manganese Dissolved	mg/L		0.143	0.148	0.0041 J	0.877	0.857	0.103	0.0165	0.0842	0.0037 J	0.0041 J	0.11
Mercury	mg/L	0.00005	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Mercury Dissolved	mg/L	0.00005	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Nickel	mg/L	0.5	0.0016 U	0.0016 U	0.0016 U	0.0045	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U
Nickel Dissolved	mg/L	0.5	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0027 J	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U
Potassium	mg/L		5.13	5.13	1.91	1.97	1.66	0.887	2.69	0.63	0.506	0.532	0.276
Potassium Dissolved	mg/L		5.22	5.09	1.88	1.74	1.72	0.873	2.7	0.598	0.529	0.503	0.25
Selenium	mg/L	0.17	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U
Selenium Dissolved	mg/L	0.17	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U
Silver	mg/L	0.17	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Silver Dissolved	mg/L	0.17	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Sodium	mg/L		3.28	2.33	4.31	3.9	3.86	82.7	81.7	4.42	2.67	2.52	3.04
Sodium Dissolved	mg/L		5.77	2.26	5.97 J	3.94	3.92	78.1	87.1	4.25	2.62	2.41	3.03
Thallium	mg/L	0.00024	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U
Thallium Dissolved	mg/L	0.00024	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U
Vanadium	mg/L		0.0014 U	0.0014 U	0.0014 U	0.0033 J	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 J
Vanadium Dissolved	mg/L		0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U
Zinc	mg/L	7.4	0.0065 U	0.0065 U	0.0065 U	0.0367	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0128 J
Zinc Dissolved	mg/L	7.4	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U
Wet Chemistry													
Alkalinity	mg/l		80.4	76.4	92.5	84.4	82.4	32.2	98.5	40.2	15.1	24.1	31.2
Bicarbonate Alkalinity as	mg/l		80.4	76.4	92.5	84.4	82.4	32.2	98.5	40.2	15.1	24.1	31.2
Chloride	mg/l	250	1.69	1.67	2.09	2.91 D	2.21 D	134 D	149 D	2	1.87	1.83	2.54
Sulfate	mg/l		0.11 U	0.11 U	0.83	0.98	1	5.13	7.7	5.68	5.67	4.97	3.48

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 10B
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	SW-MRB-03	SW-NOB-01	SW-NOB-02	SW-PAB-00	SW-PAB-01	SW-PAB-01A	SW-PAB-02	SW-PAB-03	SW-PAB-04	SW-PMB-01	SW-PMB-02	SW-SP-01
Aluminum	mg/L		0.0273 J	0.247	0.036 J	0.0276 J	0.038 J	0.0135 U	0.026 J	0.0436	0.0267 J	0.61	0.0729	0.0187 J
Aluminum Dissolved	mg/L		0.0135 U	0.0706	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U	0.0135 U
Antimony	mg/L	0.0056	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U
Antimony Dissolved	mg/L	0.0056	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U	0.00076 U
Arsenic	mg/L	0.000017	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.0011 J	0.00071 U	0.00071 U	0.00086 J	0.00071 U	0.0035	0.00071 U	0.00071 U
Arsenic Dissolved	mg/L	0.000017	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U	0.00071 U
Barium	mg/L	2	0.0119	0.0146	0.0092	0.0113	0.133	0.0702	0.103	0.113	0.0248	0.345	0.0192	0.0127
Barium Dissolved	mg/L	2	0.0101	0.0136	0.0086	0.0106	0.11	0.0638	0.0842	0.1	0.023	0.0377	0.019	0.012
Beryllium	mg/L	0.006	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U
Beryllium Dissolved	mg/L	0.006	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U	0.00029 U
Cadmium	mg/L	0.0034	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U
Cadmium Dissolved	mg/L	0.0034	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U	0.00072 U
Calcium	mg/L		12.8	8.8	10.5	12.6	16.8	26.5	28.1	31.1	23.6	58.9	43.3	12
Calcium Dissolved	mg/L		12.3	8.83	11	12.3	17.3	27.3	28.2	31.4	24.7	61.4	46.5	13
Chromium	mg/L	0.092	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0016 J	0.0015 U	0.0015 U
Chromium Dissolved	mg/L	0.092	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Cobalt	mg/L		0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.004	0.0015 U	0.0015 U
Cobalt Dissolved	mg/L		0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Copper	mg/L	1.3	0.0016 J	0.0019 J	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0031 J	0.008	0.0016 U	0.0016 U
Copper Dissolved	mg/L	1.3	0.0016 U	0.0016 J	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U
Cyanide, Total	mg/L	0.14	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.002 U	0.0061 J	0.002 U	0.002 U
Iron	mg/L		0.709	0.536	0.0778 J	0.0787 J	31.1	3.87	5.79	12.7	0.21	46.8	0.692	0.695
Iron Dissolved	mg/L		0.219	0.201	0.0491 U	0.0491 U	0.0491 U	0.0491 U	0.182	0.0614 J	0.0491 U	0.0625 J	0.0491 U	0.291
Lead	mg/L	0.005	0.00044 U	0.00067 J	0.00044 U	0.00044 U	0.00066 J	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.0032	0.00044 U	0.00044 U
Lead Dissolved	mg/L	0.005	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U	0.00044 U
Magnesium	mg/L		4.33	3.13	4.83	3.71	3.45	5.02	4.79	5.39	5.38	11.1	11.6	3.67
Magnesium Dissolved	mg/L		4.31	3.11	4.93	3.77	3.54	5.06	4.61	5.26	5.47	12.6	13.1	3.86

TABLE 10B
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	SW-MRB-03	SW-NOB-01	SW-NOB-02	SW-PAB-00	SW-PAB-01	SW-PAB-01A	SW-PAB-02	SW-PAB-03	SW-PAB-04	SW-PMB-01	SW-PMB-02	SW-SP-01
Manganese	mg/L		0.226	0.0449	0.0142	0.0425	0.678	1.31	1.8	3.2	0.0644	17.4	0.247	0.113
Manganese Dissolved	mg/L		0.116	0.0159	0.0063 J	0.0149	0.621	1.24	1.11	3.36	0.0295	0.901	0.159	0.0126
Mercury	mg/L	0.00005	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Mercury Dissolved	mg/L	0.00005	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U
Nickel	mg/L	0.5	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0032 J	0.0016 U	0.0016 U
Nickel Dissolved	mg/L	0.5	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U	0.0016 U
Potassium	mg/L		0.68	0.749	0.862	0.671	0.986	1.69	1.64	0.637	1.11	10.2	4.63	0.914
Potassium Dissolved	mg/L		0.642	0.713	0.908	0.662	1.02	1.71	1.48	0.658	1.16	10.7	4.82	1.02
Selenium	mg/L	0.17	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U
Selenium Dissolved	mg/L	0.17	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U	0.00079 U
Silver	mg/L	0.17	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Silver Dissolved	mg/L	0.17	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U	0.0015 U
Sodium	mg/L		18.6	2.58	3.52	4.9	3.63	4.18	6.3	6.68	6.38	71.4	44.7	18.1
Sodium Dissolved	mg/L		18.7	2.52	3.32	4.86	3.71	4.25	6.48	6.95	6.32	82.1	49.3	18.8
Thallium	mg/L	0.00024	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U
Thallium Dissolved	mg/L	0.00024	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U	0.00031 U
Vanadium	mg/L		0.0014 U	0.0017 J	0.0014 U	0.0014 U	0.0014 J	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0025 J	0.0014 U	0.0014 U
Vanadium Dissolved	mg/L		0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U
Zinc	mg/L	7.4	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0066 J	0.0065 U	0.0065 U	0.0257	0.0065 U	0.0065 U
Zinc Dissolved	mg/L	7.4	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U	0.0065 U
Wet Chemistry														
Alkalinity	mg/l		28.1	30.2	40.2	40.2	56.3	84.4	94.5	105	76.4	205	147	30.2
Bicarbonate Alkalinity as	mg/l		28.1	30.2	40.2	40.2	56.3	84.4	94.5	105	76.4	205	147	30.2
Chloride	mg/l	250	9.67 D	1.65	1.68	1.69	1.83 D	2.54	5.96 J	7.19 D	7.66 D	139 D	85.4 D	34.3 D
Sulfate	mg/l		4.46	5.05	7.05	6.39	1.25	1.36	0.93	0.8	2.47	1.99	6.74	5.29

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 10C
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	PMP-Pond	PMP-Pond DUP	SR-3 Pond	SR-3 SEEP 1	SR-3 SEEP 2	SW-03	SW-04	SW-11
1,1,1-Trichloroethane	ug/l	120	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	4.7	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l		0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	13	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l		0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1-Dichloroethene	ug/l	4.7	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l		0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l		0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	ug/l	21	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l		0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
1,2-Dichlorobenzene	ug/l	2000	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloroethane	ug/l	0.29	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	ug/l	0.5	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	2200	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	ug/l	550	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone (MEK)	ug/l		2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
2-Hexanone	ug/l		0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l		0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l		4.8 UB	5.9 B	5.5 B	5.3 B	5.9 B	1.1 U	1.1 U	1.1 U
Benzene	ug/l	0.15	0.09 U	0.09 U	0.09 U	0.38 J	0.61 J	0.09 U	0.09 U	0.09 U
Bromoform	ug/l	4.3	0.18 UJ	0.18 UJ	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Bromomethane	ug/l	47	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Carbon tetrachloride	ug/l	0.33	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	210	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chlorobromomethane	ug/l		0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	ug/l	0.4	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane	ug/l		0.37 U	0.37 U	0.37 U F	2.5	4.1	0.37 U	0.37 U	0.37 U

TABLE 10C
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	PMP-Pond	PMP-Pond DUP	SR-3 Pond	SR-3 SEEP 1	SR-3 SEEP 2	SW-03	SW-04	SW-11
Chloroform	ug/l	68	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloromethane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l		0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,3-Dichloropropene	ug/l		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l		0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Dichlorobromomethane	ug/l	0.55	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l		0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Ethylbenzene	ug/l	530	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Ethylene Dibromide	ug/l		0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l		0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Methyl acetate	ug/l		0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l	70	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Methylene Chloride	ug/l	2.5	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Styrene	ug/l		0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	0.34	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	ug/l	1300	0.25 U	0.25 U	0.36 J	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-Dichloroethene	ug/l	590	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l		0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	ug/l		0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Vinyl chloride	ug/l	0.082	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Xylenes, Total	ug/l		0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Tentatively Identified Compounds (TICs)										
None										

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 10C
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	SW-MRB-00	SW-MRB-01	SW-MRB-02	SW-MRB-03	SW-NOB-01	SW-NOB-02	SW-PAB-00	SW-PAB-01
1,1,1-Trichloroethane	ug/l	120	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	4.7	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l		0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	13	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l		0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1-Dichloroethene	ug/l	4.7	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l		0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l		0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	ug/l	21	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l		0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
1,2-Dichlorobenzene	ug/l	2000	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloroethane	ug/l	0.29	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	ug/l	0.5	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	2200	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	ug/l	550	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone (MEK)	ug/l		2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
2-Hexanone	ug/l		0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l		0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l		1.1 U	4.2 UB	1.1 U	1.1 U	5.5 B	6.6 B	4.6 UB	5.1 B
Benzene	ug/l	0.15	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.12 J
Bromoform	ug/l	4.3	0.18 U	0.18 UJ	0.18 U	0.18 U	0.18 UJ	0.18 U	0.18 U	0.18 U
Bromomethane	ug/l	47	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Carbon tetrachloride	ug/l	0.33	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	210	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chlorobromomethane	ug/l		0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	ug/l	0.4	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane	ug/l		0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	1.5

TABLE 10C
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	SW-MRB-00	SW-MRB-01	SW-MRB-02	SW-MRB-03	SW-NOB-01	SW-NOB-02	SW-PAB-00	SW-PAB-01
Chloroform	ug/l	68	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloromethane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l		0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,3-Dichloropropene	ug/l		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l		0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Dichlorobromomethane	ug/l	0.55	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l		0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Ethylbenzene	ug/l	530	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Ethylene Dibromide	ug/l		0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l		0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Methyl acetate	ug/l		0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l	70	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Methylene Chloride	ug/l	2.5	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.38 J
Styrene	ug/l		0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	0.34	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	ug/l	1300	0.25 U	0.25 U	0.39 J	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-Dichloroethene	ug/l	590	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l		0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	ug/l		0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Vinyl chloride	ug/l	0.082	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Xylenes, Total	ug/l		0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Tentatively Identified Compounds (TICs)										
None										

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 10C
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	SW-PAB-01A	SW-PAB-02	SW-PAB-03	SW-PAB-04	SW-PMB-01	SW-PMB-02	SW-SP-01
1,1,1-Trichloroethane	ug/l	120	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	4.7	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l		0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	13	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l		0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1-Dichloroethene	ug/l	4.7	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l		0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l		0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	ug/l	21	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l		0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.0091 J	0.007 U
1,2-Dichlorobenzene	ug/l	2000	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloroethane	ug/l	0.29	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	ug/l	0.5	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	2200	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	ug/l	550	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone (MEK)	ug/l		2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
2-Hexanone	ug/l		0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l		0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l		5.8 B	7.9 B	4.6 UB	8.2 B	6.8 B	4.2 UB	9.4 B
Benzene	ug/l	0.15	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
Bromoform	ug/l	4.3	0.18 U	0.18 UJ	0.18 UJ	0.18 U	0.18 UJ	0.18 UJ	0.18 U
Bromomethane	ug/l	47	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Carbon tetrachloride	ug/l	0.33	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	210	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chlorobromomethane	ug/l		0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	ug/l	0.4	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane	ug/l		0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U

TABLE 10C
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	SW-PAB-01A	SW-PAB-02	SW-PAB-03	SW-PAB-04	SW-PMB-01	SW-PMB-02	SW-SP-01
Chloroform	ug/l	68	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloromethane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l		0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,3-Dichloropropene	ug/l		0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l		0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Dichlorobromomethane	ug/l	0.55	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l		0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Ethylbenzene	ug/l	530	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Ethylene Dibromide	ug/l		0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l		0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Methyl acetate	ug/l		0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l	70	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l		0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Methylene Chloride	ug/l	2.5	0.53 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Styrene	ug/l		0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	0.34	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	ug/l	1300	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-Dichloroethene	ug/l	590	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l		0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	1	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	ug/l		0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Vinyl chloride	ug/l	0.082	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U	0.06 U
Xylenes, Total	ug/l		0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
Tentatively Identified Compounds (TICs)									
None									

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 10C
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	PMP-Pond	PMP-Pond DUP	SR-3 Pond	SR-3 SEEP 1	SR-3 SEEP 2	SW-03	SW-04
1,1'-Biphenyl	ug/l		0.63 U	0.63 U	0.66 U	0.66 U	0.66 U	0.66 U	0.63 U
1,2,4,5-Tetrachlorobenzene	ug/l	0.97	0.43 U	0.43 U	0.45 U	0.45 U	0.45 U	0.45 U	0.43 U
1,4-Dioxane	ug/L		0.0735 U	0.0735 U	2.94	3.43	3.5	0.0735 U	0.0735 U
2,2'-oxybis[1-chloropropane]	ug/l	1400	0.93 U	0.93 U	0.97 U	0.97 U	0.97 U	0.97 U	0.93 U
2,3,4,6-Tetrachlorophenol	ug/l		0.69 U	0.69 U	0.72 U	0.72 U	0.72 U	0.72 U	0.69 U
2,4,5-Trichlorophenol	ug/l	1800	0.49 U	0.49 U	0.51 U	0.51 U	0.51 U	0.51 U	0.49 U
2,4,6-Trichlorophenol	ug/l	0.58	0.53 U	0.53 U	0.55 U	0.55 U	0.55 U	0.55 U	0.53 U
2,4-Dichlorophenol	ug/l	77	0.63 U	0.63 U	0.66 U	0.66 U	0.66 U	0.66 U	0.63 U
2,4-Dimethylphenol	ug/l	380	0.91 U	0.91 U	0.95 U	0.95 U	0.95 U	0.95 U	0.91 U
2,4-Dinitrophenol	ug/l	69	2.4 U	2.4 U	2.5 U	2.5 U	2.5 U	2.5 U	2.4 U
2,4-Dinitrotoluene	ug/l	0.11	1 U	1 U	1.1 U	1.1 U	1.1 U	1.1 U	1 U
2,6-Dinitrotoluene	ug/l		0.88 U	0.88 U	0.92 U	0.92 U	0.92 U	0.92 U	0.88 U
2-Chloronaphthalene	ug/l	1000	0.61 U	0.61 U	0.64 U	0.64 U	0.64 U	0.64 U	0.61 U
2-Chlorophenol	ug/l	81	0.74 U	0.74 U	0.77 U	0.77 U	0.77 U	0.77 U	0.74 U
2-Methylnaphthalene	ug/l		0.88 U	0.88 U	0.92 U	0.92 U	0.92 U	0.92 U	0.88 U
2-Methylphenol	ug/l		1.3 UJ	1.3 UJ	1.3 U F	1.3 U	1.3 U	1.3 U	1.3 U
2-Nitroaniline	ug/l		0.65 U	0.65 U	0.68 U	0.68 U	0.68 U	0.68 U	0.65 U
2-Nitrophenol	ug/l		0.59 U	0.59 U	0.61 U	0.61 U	0.61 U	0.62 U	0.59 U
3,3'-Dichlorobenzidine	ug/l	0.021	1 U	1 U	1.1 U	1.1 U	1.1 U	1.1 U	1 U
3-Nitroaniline	ug/l		0.82 U	0.82 U	0.85 U	0.85 U	0.85 U	0.86 U	0.82 U
4,6-Dinitro-2-methylphenol	ug/l	13	2 U	2 U	2.1 U	2.1 U	2.1 U	2.1 U	2 U
4-Bromophenyl phenyl ether	ug/l		1 U	1 U	1.1 U	1.1 U	1.1 U	1.1 U	1 U
4-Chloro-3-methylphenol	ug/l		0.76 U	0.76 U	0.79 U	0.79 U	0.79 U	0.79 U	0.76 U
4-Chloroaniline	ug/l		0.73 U	0.73 U	0.76 U	0.76 U	0.76 U	0.76 U	0.73 U
4-Chlorophenyl phenyl ether	ug/l		0.96 U	0.96 U	1 U	1 U	1 U	1 U	0.96 U

TABLE 10C
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	PMP-Pond	PMP-Pond DUP	SR-3 Pond	SR-3 SEEP 1	SR-3 SEEP 2	SW-03	SW-04
4-Methylphenol	ug/l		0.87 U	0.87 U	0.91 U	0.91 U	0.91 U	0.91 U	0.87 U
4-Nitroaniline	ug/l		0.48 U	0.48 U	0.5 U	0.5 U	0.5 U	0.5 U	0.48 U
4-Nitrophenol	ug/l		4.7 U	4.7 U	4.8 U	4.8 U	4.8 U	4.9 U	4.7 U
Acenaphthene	ug/l	670	0.88 U	0.88 U	0.92 U	0.92 U	0.92 U	0.92 U	0.88 U
Acenaphthylene	ug/l		0.65 U	0.65 U	0.68 U	0.68 U	0.68 U	0.68 U	0.65 U
Acetophenone	ug/l		1 U	1 U	1.1 U	1.1 U	1.1 U	1.1 U	1 U
Anthracene	ug/l	8300	0.57 U	0.57 U	0.59 U	0.59 U	0.59 U	0.6 U	0.57 U
Atrazine	ug/l		0.77 U	0.77 U	0.8 U	0.8 U	0.8 U	0.81 U	0.77 U
Benzaldehyde	ug/l		0.86 U	0.86 U	0.9 U	0.9 U	0.9 U	0.9 U	0.86 U
Benzo[a]anthracene	ug/l	0.038	0.037 U	0.037 U	0.039 UJ	0.039 UJ	0.039 UJ	0.039 UJ	0.037 UJ
Benzo[a]pyrene	ug/l	0.0038	0.026 U	0.026 U	0.027 UJ	0.027 UJ	0.027 UJ	0.027 UJ	0.026 UJ
Benzo[b]fluoranthene	ug/l	0.038	0.012 U	0.012 U	0.013 UJ	0.013 UJ	0.013 UJ	0.013 UJ	0.012 UJ
Benzo[g,h,i]perylene	ug/l		0.75 U	0.75 U	0.78 U	0.78 U	0.78 U	0.78 U	0.75 U
Benzo[k]fluoranthene	ug/l	0.38	0.18 U	0.18 U	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U
Bis(2-chloroethoxy)methane	ug/l		0.69 U	0.69 U	0.72 U	0.72 U	0.72 U	0.72 U	0.69 U
Bis(2-chloroethyl)ether	ug/l	0.03	0.009 U	0.009 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.009 U
Bis(2-ethylhexyl) phthalate	ug/l	1.2	1.9 J	1.9 J	1.5 J	0.75 U	0.75 U	2 J	1.7 J
Butyl benzyl phthalate	ug/l	150	0.6 U	0.6 U	0.63 U	0.63 U	0.63 U	0.63 U	0.6 U
Caprolactam	ug/l		1.1 UJ	1.1 UJ	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Carbazole	ug/l		0.85 U	0.85 U	0.89 U	0.89 U	0.89 U	0.89 U	0.85 U
Chrysene	ug/l	3.8	0.67 U	0.67 U	0.7 U	0.7 U	0.7 U	0.7 U	0.67 U
Dibenz(a,h)anthracene	ug/l	0.0038	0.022 U	0.022 U	0.023 UJ	0.023 UJ	0.023 UJ	0.023 UJ	0.022 UJ
Dibenzofuran	ug/l		0.85 U	0.85 U	0.89 U	0.89 U	0.89 U	0.89 U	0.85 U

TABLE 10C
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	PMP-Pond	PMP-Pond DUP	SR-3 Pond	SR-3 SEEP 1	SR-3 SEEP 2	SW-03	SW-04
Diethyl phthalate	ug/l	17000	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dimethyl phthalate	ug/l		0.98 U	0.98 U	1 U	1 U	1 U	1 U	0.98 U
Di-n-butyl phthalate	ug/l	2000	1.9 UB	1.4 UB	1.3 J	0.85 U	0.85 U	1.9 J	1.3 J
Di-n-octyl phthalate	ug/l		0.69 U	0.69 U	0.72 U	0.72 U	0.72 U	0.72 U	0.69 U
Fluoranthene	ug/l	130	0.72 U	0.72 U	0.75 U	0.75 U	0.75 U	0.75 U	0.72 U
Fluorene	ug/l	1100	0.8 U	0.8 U	0.83 U	0.83 U	0.83 U	0.84 U	0.8 U
Hexachlorobenzene	ug/l	0.00028	0.009 U	0.009 U	0.0094 UJ	0.0094 UJ	0.0094 UJ	0.0094 UJ	0.009 UJ
Hexachlorobutadiene	ug/l	0.44	0.76 U	0.76 U	0.79 U	0.79 U	0.79 U	0.79 U	0.76 U
Hexachlorocyclopentadiene	ug/l	40	0.61 U	0.61 U	0.64 U	0.64 U	0.64 U	0.64 U	0.61 U
Hexachloroethane	ug/l	1.4	0.09 U	0.09 U	0.094 U	0.094 U	0.094 U	0.094 U	0.09 U
Indeno[1,2,3-cd]pyrene	ug/l	0.038	0.027 U	0.027 U	0.028 UJ	0.028 UJ	0.028 UJ	0.028 UJ	0.027 UJ
Isophorone	ug/l	35	0.67 U	0.67 U	0.7 U	0.7 U	0.7 U	0.7 U	0.67 U
Naphthalene	ug/l		0.8 U	0.8 U	0.83 U	0.83 U	0.83 U	0.84 U	0.8 U
Nitrobenzene	ug/l	17	0.49 U	0.49 U	0.51 U	0.51 U	0.51 U	0.51 U	0.49 U
N-Nitrosodi-n-propylamine	ug/l	0.005	0.83 U	0.83 U	0.86 U	0.86 U	0.86 U	0.87 U	0.83 U
N-Nitrosodiphenylamine	ug/l	3.3	0.74 U	0.74 U	0.77 U	0.77 U	0.77 U	0.77 U	0.74 U
Pentachlorophenol	ug/l	0.27	0.077 U	0.077 U	0.08 U	0.08 U	0.08 U	0.081 U	0.077 U
Phenanthrene	ug/l		0.65 U	0.65 U	0.68 U	0.68 U	0.68 U	0.68 U	0.65 U
Phenol	ug/l	10000	0.41 U	0.41 U	0.43 U	0.43 U	0.43 U	0.43 U	0.41 U
Pyrene	ug/l	830	0.83 U	0.83 U	0.86 U F	0.86 U	0.86 U	0.87 U	0.83 U
Tentatively Identified Compounds (TICs)									
None									

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 10C
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	SW-11	SW-MRB-00	SW-MRB-01	SW-MRB-02	SW-MRB-03	SW-NOB-01	SW-NOB-02	SW-PAB-00
1,1'-Biphenyl	ug/l		0.63 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U
1,2,4,5-Tetrachlorobenzene	ug/l	0.97	0.43 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U	0.45 U
1,4-Dioxane	ug/L		0.0798 U	0.075 U	0.0735 U	0.075 U	0.075 U	0.0815 U	0.075 U	0.0735 U
2,2'-oxybis[1-chloropropane]	ug/l	1400	0.93 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U
2,3,4,6-Tetrachlorophenol	ug/l		0.69 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
2,4,5-Trichlorophenol	ug/l	1800	0.49 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
2,4,6-Trichlorophenol	ug/l	0.58	0.53 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U
2,4-Dichlorophenol	ug/l	77	0.63 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U	0.66 U
2,4-Dimethylphenol	ug/l	380	0.91 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U
2,4-Dinitrophenol	ug/l	69	2.4 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
2,4-Dinitrotoluene	ug/l	0.11	1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
2,6-Dinitrotoluene	ug/l		0.88 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
2-Chloronaphthalene	ug/l	1000	0.61 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
2-Chlorophenol	ug/l	81	0.74 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
2-Methylnaphthalene	ug/l		0.88 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
2-Methylphenol	ug/l		1.3 U	1.3 U	1.3 UJ	1.3 U	1.3 U	1.3 UJ	1.3 U	1.3 U
2-Nitroaniline	ug/l		0.65 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U
2-Nitrophenol	ug/l		0.59 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U
3,3'-Dichlorobenzidine	ug/l	0.021	1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
3-Nitroaniline	ug/l		0.82 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U	0.85 U
4,6-Dinitro-2-methylphenol	ug/l	13	2 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
4-Bromophenyl phenyl ether	ug/l		1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
4-Chloro-3-methylphenol	ug/l		0.76 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
4-Chloroaniline	ug/l		0.73 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U	0.76 U
4-Chlorophenyl phenyl ether	ug/l		0.96 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

TABLE 10C
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	SW-11	SW-MRB-00	SW-MRB-01	SW-MRB-02	SW-MRB-03	SW-NOB-01	SW-NOB-02	SW-PAB-00
4-Methylphenol	ug/l		0.87 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
4-Nitroaniline	ug/l		0.48 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Nitrophenol	ug/l		4.7 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
Acenaphthene	ug/l	670	0.88 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Acenaphthylene	ug/l		0.65 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U
Acetophenone	ug/l		1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
Anthracene	ug/l	8300	0.57 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U
Atrazine	ug/l		0.77 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Benzaldehyde	ug/l		0.86 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U	0.9 U
Benzo[a]anthracene	ug/l	0.038	0.037 UJ	0.039 UJ	0.039 U	0.039 UJ	0.039 UJ	0.039 U	0.039 UJ	0.039 UJ
Benzo[a]pyrene	ug/l	0.0038	0.026 UJ	0.027 UJ	0.027 U	0.027 UJ	0.027 UJ	0.027 U	0.027 UJ	0.027 UJ
Benzo[b]fluoranthene	ug/l	0.038	0.012 UJ	0.013 UJ	0.013 U	0.013 UJ	0.013 UJ	0.013 U	0.013 UJ	0.013 UJ
Benzo[g,h,i]perylene	ug/l		0.75 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U
Benzo[k]fluoranthene	ug/l	0.38	0.18 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Bis(2-chloroethoxy)methane	ug/l		0.69 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Bis(2-chloroethyl)ether	ug/l	0.03	0.009 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U
Bis(2-ethylhexyl) phthalate	ug/l	1.2	0.72 U	0.75 U	1.1 J	3.1	2.1	2.3	0.75 U	0.75 U
Butyl benzyl phthalate	ug/l	150	0.6 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Caprolactam	ug/l		1.1 U	1.1 U	1.1 UJ	1.1 U	1.1 U	1.1 UJ	1.1 U	1.1 U
Carbazole	ug/l		0.85 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U
Chrysene	ug/l	3.8	0.67 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Dibenz(a,h)anthracene	ug/l	0.0038	0.022 UJ	0.023 UJ	0.023 U	0.023 UJ	0.023 UJ	0.023 U	0.023 UJ	0.023 UJ
Dibenzofuran	ug/l		0.85 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U

TABLE 10C
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	SW-11	SW-MRB-00	SW-MRB-01	SW-MRB-02	SW-MRB-03	SW-NOB-01	SW-NOB-02	SW-PAB-00
Diethyl phthalate	ug/l	17000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Dimethyl phthalate	ug/l		0.98 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Di-n-butyl phthalate	ug/l	2000	0.82 U	0.85 U	0.85 U	1.7 J	2 J	2.2 UB	0.85 U	0.85 U
Di-n-octyl phthalate	ug/l		0.69 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
Fluoranthene	ug/l	130	0.72 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U	0.75 U
Fluorene	ug/l	1100	0.8 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
Hexachlorobenzene	ug/l	0.00028	0.009 UJ	0.0094 UJ	0.0094 U	0.0094 UJ	0.0094 UJ	0.0094 U	0.0094 UJ	0.0094 UJ
Hexachlorobutadiene	ug/l	0.44	0.76 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
Hexachlorocyclopentadiene	ug/l	40	0.61 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U	0.64 U
Hexachloroethane	ug/l	1.4	0.09 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U
Indeno[1,2,3-cd]pyrene	ug/l	0.038	0.027 UJ	0.028 UJ	0.028 U	0.028 UJ	0.028 UJ	0.028 U	0.028 UJ	0.028 UJ
Isophorone	ug/l	35	0.67 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
Naphthalene	ug/l		0.8 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U
Nitrobenzene	ug/l	17	0.49 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U	0.51 U
N-Nitrosodi-n-propylamine	ug/l	0.005	0.83 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U
N-Nitrosodiphenylamine	ug/l	3.3	0.74 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U	0.77 U
Pentachlorophenol	ug/l	0.27	0.077 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.11 J	0.08 U
Phenanthrene	ug/l		0.65 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U	0.68 U
Phenol	ug/l	10000	0.41 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U	0.43 U
Pyrene	ug/l	830	0.83 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U	0.86 U
Tentatively Identified Compounds (TICs)										
None										

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 10C
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	SW-PAB-01	SW-PAB-01A	SW-PAB-02	SW-PAB-03	SW-PAB-04	SW-PMB-01	SW-PMB-02	SW-SP-01
1,1'-Biphenyl	ug/l		0.66 U	0.66 U	0.63 U	0.63 U	0.66 U	0.66 U	0.72 U	0.66 U
1,2,4,5-Tetrachlorobenzene	ug/l	0.97	0.45 U	0.45 U	0.43 U	0.43 U	0.45 U	0.45 U	0.49 U	0.45 U
1,4-Dioxane	ug/L		1.4	2.32	1.2	0.442	0.34	0.0815 U	0.0735 U	0.075 U
2,2'-oxybis[1-chloropropane]	ug/l	1400	0.97 U	0.97 U	0.93 U	0.93 U	0.97 U	0.97 U	1.1 U	0.97 U
2,3,4,6-Tetrachlorophenol	ug/l		0.72 U	0.72 U	0.69 U	0.69 U	0.72 U	0.72 U	0.78 U	0.72 U
2,4,5-Trichlorophenol	ug/l	1800	0.51 U	0.51 U	0.49 U	0.49 U	0.51 U	0.51 U	0.56 U	0.51 U
2,4,6-Trichlorophenol	ug/l	0.58	0.55 U	0.55 U	0.53 U	0.53 U	0.55 U	0.55 U	0.6 U	0.55 U
2,4-Dichlorophenol	ug/l	77	0.66 U	0.66 U	0.63 U	0.63 U	0.66 U	0.66 U	0.72 U	0.66 U
2,4-Dimethylphenol	ug/l	380	0.95 U	0.95 U	0.91 U	0.91 U	0.95 U	0.95 U	1 U	0.95 U
2,4-Dinitrophenol	ug/l	69	2.5 U	2.5 U	2.4 U	2.4 U	2.5 U	2.5 U	2.7 U	2.5 U
2,4-Dinitrotoluene	ug/l	0.11	1.1 U	1.1 U	1 U	1 U	1.1 U	1.1 U	1.2 U	1.1 U
2,6-Dinitrotoluene	ug/l		0.92 U	0.92 U	0.88 U	0.88 U	0.92 U	0.92 U	1 U	0.92 U
2-Chloronaphthalene	ug/l	1000	0.64 U	0.64 U	0.61 U	0.61 U	0.64 U	0.64 U	0.69 U	0.64 U
2-Chlorophenol	ug/l	81	0.77 U	0.77 U	0.74 U	0.74 U	0.77 U	0.77 U	0.84 U	0.77 U
2-Methylnaphthalene	ug/l		0.92 U	0.92 U	0.88 U	0.88 U	0.92 U	0.92 U	1 U	0.92 U
2-Methylphenol	ug/l		1.3 U	1.3 U	1.3 UJ	1.3 UJ	1.3 U	1.3 UJ	1.5 UJ	1.3 U
2-Nitroaniline	ug/l		0.68 U	0.68 U	0.65 U	0.65 U	0.68 U	0.68 U	0.74 U	0.68 U
2-Nitrophenol	ug/l		0.61 U	0.61 U	0.59 U	0.59 U	0.61 U	0.61 U	0.67 U	0.61 U
3,3'-Dichlorobenzidine	ug/l	0.021	1.1 U	1.1 U	1 U	1 U	1.1 U	1.1 U	1.2 U	1.1 U
3-Nitroaniline	ug/l		0.85 U	0.85 U	0.82 U	0.82 U	0.85 U	0.85 U	0.93 U	0.85 U
4,6-Dinitro-2-methylphenol	ug/l	13	2.1 U	2.1 U	2 U	2 U	2.1 U	2.1 U	2.3 U	2.1 U
4-Bromophenyl phenyl ether	ug/l		1.1 U	1.1 U	1 U	1 U	1.1 U	1.1 U	1.2 U	1.1 U
4-Chloro-3-methylphenol	ug/l		0.79 U	0.79 U	0.76 U	0.76 U	0.79 U	0.79 U	0.86 U	0.79 U
4-Chloroaniline	ug/l		0.76 U	0.76 U	0.73 U	0.73 U	0.76 U	0.76 U	0.83 U	0.76 U
4-Chlorophenyl phenyl ether	ug/l		1 U	1 U	0.96 U	0.96 U	1 U	1 U	1.1 U	1 U

TABLE 10C
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	SW-PAB-01	SW-PAB-01A	SW-PAB-02	SW-PAB-03	SW-PAB-04	SW-PMB-01	SW-PMB-02	SW-SP-01
4-Methylphenol	ug/l		0.91 U	0.91 U	0.87 U	0.87 U	0.91 U	0.91 U	0.99 U	0.91 U
4-Nitroaniline	ug/l		0.5 U	0.5 U	0.48 U	0.48 U	0.5 U	0.5 U	0.55 U	0.5 U
4-Nitrophenol	ug/l		4.8 U	4.8 U	4.7 U	4.7 U	4.8 U	4.8 U	5.3 U	4.8 U
Acenaphthene	ug/l	670	0.92 U	0.92 U	0.88 U	0.88 U	0.92 U	0.92 U	1 U	0.92 U
Acenaphthylene	ug/l		0.68 U	0.68 U	0.65 U	0.65 U	0.68 U	0.68 U	0.74 U	0.68 U
Acetophenone	ug/l		1.1 U	1.1 U	1 U	1 U	1.1 U	1.1 U	1.2 U	1.1 U
Anthracene	ug/l	8300	0.59 U	0.59 U	0.57 U	0.57 U	0.59 U	0.59 U	0.65 U	0.59 U
Atrazine	ug/l		0.8 U	0.8 U	0.77 U	0.77 U	0.8 U	0.8 U	0.88 U	0.8 U
Benzaldehyde	ug/l		0.9 U	0.9 U	0.86 U	0.86 U	0.9 U	0.9 U	0.98 U	0.9 U
Benzo[a]anthracene	ug/l	0.038	0.039 UJ	0.039 UJ	0.037 U	0.037 U	0.039 UJ	0.039 U	0.042 U	0.039 UJ
Benzo[a]pyrene	ug/l	0.0038	0.027 UJ	0.027 UJ	0.026 U	0.026 U	0.027 UJ	0.027 U	0.03 U	0.027 UJ
Benzo[b]fluoranthene	ug/l	0.038	0.013 UJ	0.013 UJ	0.012 U	0.012 U	0.013 UJ	0.013 U	0.014 U	0.013 UJ
Benzo[g,h,i]perylene	ug/l		0.78 U	0.78 U	0.75 U	0.75 U	0.78 U	0.78 U	0.85 U	0.78 U
Benzo[k]fluoranthene	ug/l	0.38	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.19 U	0.2 U	0.19 U
Bis(2-chloroethoxy)methane	ug/l		0.72 U	0.72 U	0.69 U	0.69 U	0.72 U	0.72 U	0.78 U	0.72 U
Bis(2-chloroethyl)ether	ug/l	0.03	0.0094 U	0.0094 U	0.009 U	0.009 U	0.0094 U	0.0094 U	0.01 U	0.0094 U
Bis(2-ethylhexyl) phthalate	ug/l	1.2	1.4 J	0.75 U	3.2	1.9 J	0.75 U	4	2.2 J	4
Butyl benzyl phthalate	ug/l	150	0.63 U	0.63 U	0.6 U	0.6 U	0.63 U	0.63 U	0.68 U	0.63 U
Caprolactam	ug/l		1.1 U	1.1 U	1.1 UJ	1.1 UJ	1.1 U	1.1 UJ	1.2 UJ	1.1 U
Carbazole	ug/l		0.89 U	0.89 U	0.85 U	0.85 U	0.89 U	0.89 U	0.97 U	0.89 U
Chrysene	ug/l	3.8	0.7 U	0.7 U	0.67 U	0.67 U	0.7 U	0.7 U	0.76 U	0.7 U
Dibenz(a,h)anthracene	ug/l	0.0038	0.023 UJ	0.023 UJ	0.022 U	0.022 U	0.023 UJ	0.023 U	0.025 U	0.023 UJ
Dibenzofuran	ug/l		0.89 U	0.89 U	0.85 U	0.85 U	0.89 U	0.89 U	0.97 U	0.89 U

TABLE 10C
SUMMARY OF SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCS) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	SW-PAB-01	SW-PAB-01A	SW-PAB-02	SW-PAB-03	SW-PAB-04	SW-PMB-01	SW-PMB-02	SW-SP-01
Diethyl phthalate	ug/l	17000	1 U	1 U	1 U	1 U	1 U	1 U	1.1 U	1 U
Dimethyl phthalate	ug/l		1 U	1 U	0.98 U	0.98 U	1 U	1 U	1.1 U	1 U
Di-n-butyl phthalate	ug/l	2000	0.89 J	0.85 U	2.8 UB	1.9 UB	0.85 U	2.7 UB	2 UB	2.4 J
Di-n-octyl phthalate	ug/l		0.72 U	0.72 U	0.69 U	0.69 U	0.72 U	0.72 U	0.78 U	0.72 U
Fluoranthene	ug/l	130	0.75 U	0.75 U	0.72 U	0.72 U	0.75 U	0.75 U	0.82 U	0.75 U
Fluorene	ug/l	1100	0.83 U	0.83 U	0.8 U	0.8 U	0.83 U	0.83 U	0.91 U	0.83 U
Hexachlorobenzene	ug/l	0.00028	0.0094 UJ	0.0094 UJ	0.009 U	0.009 U	0.0094 UJ	0.0094 U	0.01 U	0.0094 UJ
Hexachlorobutadiene	ug/l	0.44	0.79 U	0.79 U	0.76 U	0.76 U	0.79 U	0.79 U	0.86 U	0.79 U
Hexachlorocyclopentadiene	ug/l	40	0.64 U	0.64 U	0.61 U	0.61 U	0.64 U	0.64 U	0.69 U	0.64 U
Hexachloroethane	ug/l	1.4	0.094 U	0.094 U	0.09 U	0.09 U	0.094 U	0.094 U	0.1 U	0.094 U
Indeno[1,2,3-cd]pyrene	ug/l	0.038	0.028 UJ	0.028 UJ	0.027 U	0.027 U	0.028 UJ	0.028 U	0.031 U	0.028 UJ
Isophorone	ug/l	35	0.7 U	0.7 U	0.67 U	0.67 U	0.7 U	0.7 U	0.76 U	0.7 U
Naphthalene	ug/l		0.83 U	0.83 U	0.8 U	0.8 U	0.83 U	0.83 U	0.91 U	0.83 U
Nitrobenzene	ug/l	17	0.51 U	0.51 U	0.49 U	0.49 U	0.51 U	0.51 U	0.56 U	0.51 U
N-Nitrosodi-n-propylamine	ug/l	0.005	0.86 U	0.86 U	0.83 U	0.83 U	0.86 U	0.86 U	0.94 U	0.86 U
N-Nitrosodiphenylamine	ug/l	3.3	0.77 U	0.77 U	0.74 U	0.74 U	0.77 U	0.77 U	0.84 U	0.77 U
Pentachlorophenol	ug/l	0.27	0.08 U	0.08 U	0.077 U	0.077 U	0.08 U	0.12 J	0.088 U	0.08 U
Phenanthrene	ug/l		0.68 U	0.68 U	0.65 U	0.65 U	0.68 U	0.68 U	0.74 U	0.68 U
Phenol	ug/l	10000	0.43 U	0.43 U	0.41 U	0.41 U	0.43 U	0.43 U	0.47 U	0.43 U
Pyrene	ug/l	830	0.86 U	0.86 U	0.83 U	0.83 U	0.86 U	0.86 U	0.94 U	0.86 U
Tentatively Identified Compounds (TICs)										
None										

See Table 12 for validation qualifiers.

Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 10D
SUMMARY OF POLYCHLORINATED BIPHENYLS (PCBs) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	NJSWQS ug/l	PMP-Pond	PMP-Pond DUP	SR-3 Pond	SR-3 SEEP 1	SR-3 SEEP 2	SW-03	SW-04	SW-11
PCB-1016	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1221	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1232	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1242	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1248	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1254	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1260	ug/l		0.084 U	0.084 U	0.084 U F	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1262	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1268	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
Polychlorinated biphenyls, Total	ug/l	0.000064	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U

Parameter	Result Unit	NJSWQS ug/l	SW-MRB-00	SW-MRB-01	SW-MRB-02	SW-MRB-03	SW-NOB-01	SW-NOB-02	SW-PAB-00	SW-PAB-01
PCB-1016	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1221	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1232	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1242	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1248	ug/l		0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1254	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1260	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1262	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1268	ug/l		0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
Polychlorinated biphenyls, Total	ug/l	0.000064	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U

TABLE 10D
SUMMARY OF POLYCHLORINATED BIPHENYLS (PCBs) IN SURFACE WATER
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	SW-PAB-01A	SW-PAB-02	SW-PAB-03	SW-PAB-04	SW-PMB-01	SW-PMB-02	SW-SP-01
PCB-1016	ug/l	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1221	ug/l	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1232	ug/l	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1242	ug/l	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1248	ug/l	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U
PCB-1254	ug/l	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1260	ug/l	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1262	ug/l	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
PCB-1268	ug/l	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U	0.084 U
Polychlorinated biphenyls, Total	ug/l	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U

See Table 12 for validation qualifiers.
Result exceeds NJGWQS (NJAC 7:9C March 2014)

TABLE 11A
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN FIELD AND TRIP BLANKS
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	FB-01-081616	FB-02-081816	FB-03-081916	FB-04-082416	FB-05-082916	TB-01-081616TB	TB-02-081716TB	TB-03-081816TB
1,1,1-Trichloroethane	ug/l	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	0.19 U	0.19 UJ	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1-Dichloroethene	ug/l	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,2,4-Trichlorobenzene	ug/l	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
1,2-Dichlorobenzene	ug/l	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloroethane	ug/l	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	ug/l	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	ug/l	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone (MEK)	ug/l	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
2-Hexanone	ug/l	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l	1.1 U	1.1 U	6.3 B	1.1 U	7.4 B	1.1 U	1.1 U	1.1 U
Benzene	ug/l	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
Bromoform	ug/l	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 UJ	0.18 U
Bromomethane	ug/l	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Carbon tetrachloride	ug/l	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chlorobromomethane	ug/l	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	ug/l	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane	ug/l	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U

TABLE 11A
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN FIELD AND TRIP BLANKS
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	FB-01-081616	FB-02-081816	FB-03-081916	FB-04-082416	FB-05-082916	TB-01-081616TB	TB-02-081716TB	TB-03-081816TB
Chloroform	ug/l	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloromethane	ug/l	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,3-Dichloropropene	ug/l	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Dichlorobromomethane	ug/l	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Ethylbenzene	ug/l	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Ethylene Dibromide	ug/l	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Methyl acetate	ug/l	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Methylene Chloride	ug/l	0.21 U	1.4	1.4	1.2	0.87 J	4.1	2.9	0.21 U
Styrene	ug/l	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	ug/l	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-Dichloroethene	ug/l	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	0.22 U	0.22 U	0.22 U	0.22 U	0.26 J	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	ug/l	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Vinyl chloride	ug/l	0.06 U	0.06 U	0.06 U	0.06 UJ	0.06 U	0.06 U	0.06 U	0.06 U
Xylenes, Total	ug/l	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U

TABLE 11A
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN FIELD AND TRIP BLANKS
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	TB-04-081916TB	TB-05-082216TB	TB-06-082316	TB-07-082416TB	TB-08-082516TB	TB-09-082916TB
1,1,1-Trichloroethane	ug/l	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U
1,1,2,2-Tetrachloroethane	ug/l	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,1,2-Trichloroethane	ug/l	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U	0.08 U
1,1-Dichloroethane	ug/l	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
1,1-Dichloroethene	ug/l	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
1,2,3-Trichlorobenzene	ug/l	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
1,2,3-Trichloropropane	ug/l	0.011 U	0.011 U	0.011 U		0.011 U	
1,2,4-Trichlorobenzene	ug/l	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
1,2-Dibromo-3-Chloropropane	ug/l	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U	0.007 U
1,2-Dichlorobenzene	ug/l	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloroethane	ug/l	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloropropane	ug/l	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
1,3-Dichlorobenzene	ug/l	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,4-Dichlorobenzene	ug/l	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
2-Butanone (MEK)	ug/l	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
2-Hexanone	ug/l	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U
4-Methyl-2-pentanone (MIBK)	ug/l	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U	0.63 U
Acetone	ug/l	8.4	5.6	7.9	8.3	4.1 J	7.4
Benzene	ug/l	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U
Bromoform	ug/l	0.18 U	0.18 UJ	0.18 U	0.18 U	0.18 UJ	0.18 U
Bromomethane	ug/l	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Carbon disulfide	ug/l	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Carbon tetrachloride	ug/l	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chlorobenzene	ug/l	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Chlorobromomethane	ug/l	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chlorodibromomethane	ug/l	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloroethane	ug/l	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U

TABLE 11A
SUMMARY OF VOLATILE ORGANIC COMPOUNDS (VOCS) IN FIELD AND TRIP BLANKS
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	TB-04-081916TB	TB-05-082216TB	TB-06-082316	TB-07-082416TB	TB-08-082516TB	TB-09-082916TB
Chloroform	ug/l	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Chloromethane	ug/l	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
cis-1,2-Dichloroethene	ug/l	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
cis-1,3-Dichloropropene	ug/l	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U
Cyclohexane	ug/l	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U
Dichlorobromomethane	ug/l	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Dichlorodifluoromethane	ug/l	0.14 U	0.14 U	0.14 U	0.14 U	0.14 UJ	0.14 U
Ethylbenzene	ug/l	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Ethylene Dibromide	ug/l	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U	0.006 U
Isopropylbenzene	ug/l	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U
Methyl acetate	ug/l	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Methyl tert-butyl ether	ug/l	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
Methylcyclohexane	ug/l	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Methylene Chloride	ug/l	0.21 U	0.21 U	0.21 U	0.21 U	0.23 J	0.21 U
Styrene	ug/l	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U
Tetrachloroethene	ug/l	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U
Toluene	ug/l	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-Dichloroethene	ug/l	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
trans-1,3-Dichloropropene	ug/l	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	ug/l	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Trichlorofluoromethane	ug/l	0.15 U	0.15 U	0.15 U	0.15 U	0.15 UJ	0.15 U
Vinyl chloride	ug/l	0.06 U	0.06 U	0.06 U	0.06 UJ	0.06 U	0.06 U
Xylenes, Total	ug/l	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U	0.28 U

TABLE 11B
SUMMARY OF SEMI VOLATILE ORGANIC COMPOUNDS (SVOCS) IN FIELD BLANKS
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	FB-01-081616	FB-02-081816	FB-03-081916	FB-04-082416	FB-05-082916
1,1'-Biphenyl	ug/l	0.67 U	0.63 U	0.66 U	0.67 U	0.63 U
1,2,4,5-Tetrachlorobenzene	ug/l	0.46 U	0.43 U	0.45 U	0.46 U	0.43 U
1,4-Dioxane	ug/l	0.0815 U	0.0798 U	0.075 U	0.0765 U	0.0721 U
2,2'-oxybis[1-chloropropane]	ug/l	0.99 U	0.93 U	0.97 U	0.99 U	0.93 U
2,3,4,6-Tetrachlorophenol	ug/l	0.73 U	0.69 U	0.72 U	0.73 U	0.69 U
2,4,5-Trichlorophenol	ug/l	0.52 U	0.49 U	0.51 U	0.52 U	0.49 U
2,4,6-Trichlorophenol	ug/l	0.56 U	0.53 U	0.55 U	0.56 U	0.53 U
2,4-Dichlorophenol	ug/l	0.67 U	0.63 U	0.66 U	0.67 U	0.63 U
2,4-Dimethylphenol	ug/l	0.97 U	0.91 U	0.95 U	0.97 U	0.91 U
2,4-Dinitrophenol	ug/l	2.5 U	2.4 U	2.5 U	2.5 UJ	2.4 U
2,4-Dinitrotoluene	ug/l	1.1 U	1 U	1.1 U	1.1 U	1 U
2,6-Dinitrotoluene	ug/l	0.94 U	0.88 U	0.92 U	0.94 U	0.88 U
2-Chloronaphthalene	ug/l	0.65 U	0.61 U	0.64 U	0.65 U	0.61 U
2-Chlorophenol	ug/l	0.79 U	0.74 U	0.77 U	0.79 U	0.74 U
2-Methylnaphthalene	ug/l	0.94 U	0.88 U	0.92 U	0.94 U	0.88 UJ
2-Methylphenol	ug/l	1.4 UJ	1.3 UJ	1.3 U	1.4 U	1.3 UJ
2-Nitroaniline	ug/l	0.69 U	0.65 U	0.68 U	0.69 U	0.65 U
2-Nitrophenol	ug/l	0.63 U	0.59 U	0.61 U	0.63 U	0.59 U
3,3'-Dichlorobenzidine	ug/l	1.1 U	1 U	1.1 U	1.1 U	1 U
3-Nitroaniline	ug/l	0.87 U	0.82 U	0.85 U	0.87 U	0.82 U
4,6-Dinitro-2-methylphenol	ug/l	2.1 U	2 U	2.1 U	2.1 U	2 U
4-Bromophenyl phenyl ether	ug/l	1.1 U	1 U	1.1 U	1.1 U	1 U
4-Chloro-3-methylphenol	ug/l	0.81 U	0.76 U	0.79 U	0.81 U	0.76 U
4-Chloroaniline	ug/l	0.78 U	0.73 U	0.76 U	0.78 U	0.73 U
4-Chlorophenyl phenyl ether	ug/l	1 U	0.96 U	1 U	1 U	0.96 U
4-Methylphenol	ug/l	0.93 U	0.87 U	0.91 U	0.93 U	0.87 U
4-Nitroaniline	ug/l	0.51 U	0.48 U	0.5 U	0.51 U	0.48 U
4-Nitrophenol	ug/l	4.9 U	4.7 U	4.8 U	4.9 U	4.7 U
Acenaphthene	ug/l	0.94 U	0.88 U	0.92 U	0.94 U	0.88 U
Acenaphthylene	ug/l	0.69 U	0.65 U	0.68 U	0.69 U	0.65 U
Acetophenone	ug/l	1.1 U	1 U	1.1 U	1.1 U	1 U
Anthracene	ug/l	0.61 U	0.57 U	0.59 U	0.61 U	0.57 U
Atrazine	ug/l	0.82 U	0.77 U	0.8 U	0.82 U	0.77 U
Benzaldehyde	ug/l	0.91 U	0.86 U	0.9 U	0.91 U	0.86 U
Benzo[a]anthracene	ug/l	0.039 U	0.037 U	0.039 UJ	0.039 U	0.037 U
Benzo[a]pyrene	ug/l	0.028 U	0.026 U	0.027 UJ	0.028 UJ	0.026 U
Benzo[b]fluoranthene	ug/l	0.013 U	0.012 U	0.013 UJ	0.013 UJ	0.012 U
Benzo[g,h,i]perylene	ug/l	0.8 U	0.75 U	0.78 U	0.8 U	0.75 U
Benzo[k]fluoranthene	ug/l	0.19 U	0.18 U	0.19 U	0.19 U	0.18 U
Bis(2-chloroethoxy)methane	ug/l	0.73 U	0.69 U	0.72 U	0.73 U	0.69 U
Bis(2-chloroethyl)ether	ug/l	0.0096 U	0.009 U	0.0094 U	0.0096 UJ	0.009 U

TABLE 11B
SUMMARY OF SEMI VOLATILE ORGANIC COMPOUNDS (SVOCS) IN FIELD BLANKS
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	FB-01-081616	FB-02-081816	FB-03-081916	FB-04-082416	FB-05-082916
Bis(2-ethylhexyl) phthalate	ug/l	0.77 U	0.72 U	0.75 U	0.77 U	0.72 U
Butyl benzyl phthalate	ug/l	0.64 U	0.6 U	0.63 U	0.64 U	0.6 U
Caprolactam	ug/l	1.1 U	1.1 U	1.1 U	1.1 U	1.1 UJ
Carbazole	ug/l	0.9 U	0.85 U	0.89 U	0.9 U	0.85 U
Chrysene	ug/l	0.71 U	0.67 U	0.7 U	0.71 U	0.67 U
Dibenz(a,h)anthracene	ug/l	0.023 U	0.022 U	0.023 UJ	0.023 UJ	0.022 U
Dibenzofuran	ug/l	0.9 U	0.85 U	0.89 U	0.9 U	0.85 U
Diethyl phthalate	ug/l	1.1 U	1 U	1 U	1.1 U	1 U
Dimethyl phthalate	ug/l	1 U	0.98 U	1 U	1 U	0.98 U
Di-n-butyl phthalate	ug/l	0.87 U	0.82 U	0.85 U	0.87 U	0.82 U
Di-n-octyl phthalate	ug/l	0.73 U	0.69 U	0.72 U	0.73 U	0.69 U
Fluoranthene	ug/l	0.77 U	0.72 U	0.75 U	0.77 U	0.72 U
Fluorene	ug/l	0.85 U	0.8 U	0.83 U	0.85 U	0.8 U
Hexachlorobenzene	ug/l	0.0096 U	0.009 U	0.0094 UJ	0.0096 U	0.009 U
Hexachlorobutadiene	ug/l	0.81 U	0.76 U	0.79 U	0.81 U	0.76 UJ
Hexachlorocyclopentadiene	ug/l	0.65 U	0.61 U	0.64 U	0.65 U	0.61 U
Hexachloroethane	ug/l	0.096 U	0.09 U	0.094 U	0.096 U	0.09 U
Indeno[1,2,3-cd]pyrene	ug/l	0.029 U	0.027 U	0.028 UJ	0.029 U	0.027 U
Isophorone	ug/l	0.71 U	0.67 U	0.7 U	0.71 U	0.67 U
Naphthalene	ug/l	0.85 U	0.8 U	0.83 U	0.85 U	0.8 UJ
Nitrobenzene	ug/l	0.52 U	0.49 U	0.51 U	0.52 U	0.49 U
N-Nitrosodi-n-propylamine	ug/l	0.88 U	0.83 U	0.86 U	0.88 U	0.83 U
N-Nitrosodiphenylamine	ug/l	0.79 U	0.74 U	0.77 U	0.79 U	0.74 U
Pentachlorophenol	ug/l	0.082 U	0.077 U	0.08 U	0.082 U	0.077 U
Phenanthrene	ug/l	0.69 U	0.65 U	0.68 U	0.69 U	0.65 U
Phenol	ug/l	0.44 U	0.41 U	0.43 U	0.44 U	0.41 U
Pyrene	ug/l	0.88 U	0.83 U	0.86 U	0.88 U	0.83 U

TABLE 11C
SUMMARY OF METALS AND WET CHEMISTRY PARAMETERS IN FIELD BLANKS
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	FB-01-081616	FB-02-081816	FB-03-081916	FB-04-082416	FB-05-082916
Aluminum	ug/l	13.5 U	13.5 U	13.5 U	18.2 U	18.2 U
Antimony	ug/l	0.76 U	0.76 U	0.76 U	0.62 U	0.62 U
Arsenic	ug/l	0.71 U	0.71 U	0.71 U	0.64 U	0.64 U
Barium	ug/l	1.5 U	1.5 U	1.5 U	1.2 U	1.2 U
Beryllium	ug/l	0.29 U	0.29 U	0.29 U	0.24 U	0.24 U
Cadmium	ug/l	0.72 U	0.72 U	0.72 U	0.71 U	0.71 U
Calcium	ug/l	69.5 U	69.5 U	69.5 U	60.5 U	60.5 U
Chromium	ug/l	1.5 U	1.5 U	1.5 U	1.3 U	1.3 U
Cobalt	ug/l	1.5 U	1.5 U	1.5 U	1.3 U	1.3 U
Copper	ug/l	1.6 U	1.6 U	1.6 U	1.4 U	1.4 U
Cyanide, Total	mg/l	0.002 U		0.002 U	0.002 U	0.002 U
Iron	ug/l	49.1 U	49.1 U	49.1 U	42.4 U	42.4 U
Lead	ug/l	0.44 U	0.44 U	0.44 U	0.38 U	0.38 U
Magnesium	ug/l	68.4 U	68.4 U	68.4 U	63.6 U	63.6 U
Manganese	ug/l	3 U	3 U	3 U	2.5 U	2.5 U
Mercury	ug/l	0.14 U	0.14 U	0.14 U	0.17 U	0.17 U
Nickel	ug/l	1.6 U	1.6 U	1.6 U	1.4 U	1.4 U
Potassium	ug/l	74.8 U	74.8 U	74.8 U	91.4 U	91.4 U
Selenium	ug/l	0.79 U	0.79 U	0.79 U	0.73 U	0.73 U
Silver	ug/l	1.5 U	1.5 U	1.5 U	1.3 U	1.3 U
Sodium	ug/l	87.6 U	87.6 U	87.6 U	73.5 J	69 U
Thallium	ug/l	0.31 U	0.31 U	0.31 U	0.26 U	0.26 U
Vanadium	ug/l	1.4 U	1.4 U	1.4 U	1.9 U	1.9 U
Zinc	ug/l	6.5 U	6.5 U	6.5 U	7 U	7 U
Wet Chemistry						
Alkalinity	mg/l	5 U	5 U	5 U	5 U	5 U
Bicarbonate Alkalinity as CaCO3	mg/l	5 U	5 U	5 U	5	5 U
Chloride	mg/l	0.2	0.19	0.21	0.2	0.15
Sulfate	mg/l	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U

TABLE 11D
SUMMARY OF PCBs IN FIELD BLANKS
AUGUST 2016
RINGWOOD MINES/LANDFILL SUPERFUND SITE

Parameter	Result Unit	FB-01-081616	FB-02-081816	FB-03-081916	FB-04-082416	FB-05-082916
PCB-1016	ug/l	0.098 U	0.098 U	0.098 U	0.1 U	0.098 U
PCB-1221	ug/l	0.098 U	0.098 U	0.098 U	0.1 U	0.098 U
PCB-1232	ug/l	0.098 U	0.098 U	0.098 U	0.1 U	0.098 U
PCB-1242	ug/l	0.098 U	0.098 U	0.098 U	0.1 U	0.098 U
PCB-1248	ug/l	0.098 U	0.098 U	0.098 U	0.1 U	0.098 U
PCB-1254	ug/l	0.084 U	0.084 U	0.084 U	0.088 U	0.084 U
PCB-1260	ug/l	0.084 U	0.084 U	0.084 U	0.088 U	0.084 U
PCB-1262	ug/l	0.084 U	0.084 U	0.084 U	0.088 U	0.084 U
PCB-1268	ug/l	0.084 U	0.084 U	0.084 U	0.088 U	0.084 U
Polychlorinated biphenyls, Total	ug/l	0.098 U	0.098 U	0.098 U	0.1 U	0.098 U

Table 12
CADENA Data Validation Qualifiers
August 2015

Validation Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
J-	The result is an estimated quantity, but the result may be biased low.
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

Table 13A
Summary of Historical and Current Groundwater Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead: 2004-2016
Ringwood Mines/Landfill Superfund Site

Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
OB-01	OB-1(110104)	5-31'	11/1/2004	< 1.0		<1	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	OB-1 (123004)		12/30/2004	< 0.31		<1	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	OB-1 (9/26/2006)		9/26/2006	< 0.21		<1	< 1.5 J	< 2.6	1.8 BJ	< 2.6	NA	NA
	OB-1(040607)		4/6/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	OB-1(071009)		10/9/2007	< 0.19		<1	< 1.1	< 0.94	< 1.1	< 0.94	NA	NA
	OB-1(080430)		4/30/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-1(080908)		9/8/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-1(070209)		7/2/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-1(102209)		10/22/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-1(052610)		5/26/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-1 (052011)		5/20/2011	< 0.26		<1	< 0.92	1.2 B	< 0.92	< 0.94	NA	NA
	OB-1 (042612)		4/26/2012	< 0.22	NA	<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
OB-02	OB-2 (10/13/04)	8-42'	10/13/2004	< 0.50		<2	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	OB-2 (10/2/2006)		10/2/2006	< 0.21		<1	< 1.5	< 2.6	2.0	< 2.6	NA	NA
	OB-2(040607)		4/6/2007	< 0.21		<1	< 1.5	3.2	< 1.5	< 2.8	NA	NA
	OB-2(071008)		10/8/2007	< 0.19		<1	< 1.1	< 0.94	< 1.1	< 0.94	NA	NA
	OB-2(080428)		4/28/2008	< 0.26		<1	< 1.7	1.8 B	< 1.7	< 1.4	NA	NA
	OB-2 (080917)		9/17/2008	< 0.26		<1	< 1.7	< 1.4	1.7 B	< 1.4	NA	NA
	OB-2(063009)		6/30/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-2(102009)		10/20/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-2(052510)		5/25/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-2(051611)		5/16/2011	< 0.26		<1	< 0.92	1.3 B	< 0.92	< 1.1	NA	NA
	OB-2 (041912)		4/19/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-2 (111813)		11/18/2013	< 0.28		<1	< 1.5	2.6 B	< 1.5	< 2.4	NA	NA
	OB-2(091514)		9/15/2014	< 0.21		<1	< 2.6	< 1.3	< 3.0 B	< 1.3	NA	NA
	OB-2(081215)		8/12/2015	<0.2	<0.27	<1	1.2 UB	<0.2	<0.5	<0.2	NA	NA
	OB-2(081716)		8/17/2016	< 0.09	< 0.0765	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
OB-03	OB-3 (10/13/04)	9-24'	10/13/2004	< 0.50		<2	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	OB-3		9/28/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	OB-3(040307)		4/3/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	OB-3(071008)		10/8/2007	< 0.19		<1	< 1.1	< 0.94	< 1.1	< 0.94	NA	NA
	OB-3(080428)		4/28/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-3(080909)		9/9/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-3(063009)		6/30/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-3(102009)		10/20/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-3(052510)		5/25/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-3(151711)		5/17/2011	< 0.26		<1	< 0.92	< 0.94	< 0.92	< 0.94	NA	NA
	OB-3(042312)		4/23/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-3(042312) DUP		4/23/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-3 (111513)		11/15/2013	< 0.28 J		<1 J	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	OB-3(090814)		9/8/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	DUP(090814)		9/8/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	OB-3(081015)		8/10/2015	<0.2	<0.27	<1	<0.5	<0.2	<0.5	<0.2	NA	NA
	OB-3(081616)		8/16/2016	< 0.09	< 0.0735	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
OB-04	OB-4 (10/14/04)	28-61'	10/14/2004	< 0.50		<2	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	OB-4		9/29/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	OB-4(040607)		4/6/2007	< 0.21		<1	< 1.5	4.1	< 1.5	< 2.8	NA	NA
	OB-4(071009)		10/9/2007	< 0.19		<1	< 1.1	< 0.94	< 1.1	< 0.94	NA	NA
	OB-4(080428)		4/28/2008	< 0.26		<1	< 1.7	1.6 B	< 1.7	< 1.4	NA	NA
	OB-4(080910)		9/10/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-4(070109)		7/1/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-4(102109)		10/21/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-4(052610)		5/26/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-4(051711)		5/17/2011	< 0.26		<1	1.1 B	1.2 B	< 0.92	< 0.94	NA	NA
	OB-4 (042712)		4/27/2012	< 0.22		<1 J	< 0.97	1.9 J	< 0.97	< 1.7	NA	NA
	OB-4 (111313)		11/13/2013	< 0.28		<1	1.7 B	< 3.9 B	2.2 B	< 3.4 B	NA	NA
	OB-4(091514)		9/15/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	OB-4(081015)		8/10/2015	<0.2	<0.27	<1	<0.5	<0.2	<0.5	<0.2	NA	NA
	OB-4(081716)		8/17/2016	< 0.09	0.079 J	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
	OB-5 (10/15/04)		10/15/2004	< 0.50		<2	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA

Table 13A
Summary of Historical and Current Groundwater Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead: 2004-2016
Ringwood Mines/Landfill Superfund Site

Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
OB-05	OB-5 (10/2/2006)	18-63'	10/2/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	2.6 B	NA	NA
	OB-5(040407)		4/4/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	OB-5(071009)		10/9/2007	< 0.19		<1	< 1.1	< 0.94	< 1.1	< 0.94	NA	NA
	OB-5(080428)		4/28/2008	< 0.26		<1	< 1.7	1.5 B	< 1.7	1.4 B	NA	NA
	OB-5(080909)		9/9/2008	< 0.26		<1	< 1.7	1.7 B	< 1.7	< 1.4	NA	NA
	OB-5(070109)		7/1/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-5(102109)		10/21/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-5(052610)		5/26/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-5(051711)		5/17/2011	< 0.26		<1	< 0.92	1.2 B	< 0.92	< 0.94	NA	NA
	OB-5 (041912)		4/19/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-5 (041912) DUP		4/19/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-5(111113)		11/11/2013	< 0.28		<1	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	OB-5(090814)		9/8/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	OB-5(081015)		8/10/2015	<0.2	<0.27	<1	<0.5	<0.2	<0.5	<0.2	NA	NA
	OB-5(081816)		8/18/2016	< 0.09	0.165	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
OB-06	OB-6 (11/2/04)	10-36'	11/2/2004	< 0.31		<1	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	OB-6 (123004)		12/30/2004	< 0.31		<1	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	OB-6		9/26/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	OB-6(040607)		4/6/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	OB-6(071009)		10/9/2007	< 0.19		<1	< 1.1	< 0.94	< 1.1	< 0.94	NA	NA
	OB-6(080501)		5/1/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	1.9 B	NA	NA
	OB-6(080908)		9/8/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-6(070209)		7/2/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-6 (111513)		11/15/2013	< 0.28 J		<1 J	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	OB-6(090814)		9/8/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	OB-6(080615)		8/6/2015	<0.2	<0.27	<1	<0.7 B	<0.2	<0.2 B	<0.2	NA	NA
	OB-6(081816)		8/18/2016	< 0.09	< 0.0735	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
OB-07	OB-7 (101304)	14-42'	10/13/2004	< 0.50		<2	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	REP101304		10/13/2004	< 0.50		<2	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	OB-7		9/28/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	OB7(041107)		4/11/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	OB-7(071009)		10/9/2007	< 0.19		<1	< 1.1	< 0.94	< 1.1	< 0.94	NA	NA
	OB-7(080430)		4/30/2008	< 0.26		<1	< 1.7	2.9 B	2.0 B	1.9 B	NA	NA
	OB-7(080910)		9/10/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-7(080910) DUP		9/10/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-7(070109)		7/1/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-7(102109)		10/21/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-7(052510)		5/25/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-7(052510) DUP		5/25/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-7(051711)		5/17/2011	< 0.26		<1	< 0.92	1.2 B	< 0.92	1.3 B	NA	NA
	OB-7 (041912)		4/19/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	DUP (111213)		11/12/2013	< 0.28		<1	< 3.0 B	< 2.4	< 3.0 B	< 2.4	NA	NA
	OB-7 (111213)		11/12/2013	< 0.28		<1	< 3.0 B	< 2.4	< 3.0 B	< 2.4	NA	NA
	OB-7 (090514)		9/5/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	DUP (090514)		9/5/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	OB-7(082415)		8/24/2015	<0.2	<0.27	<1	<0.57 J	<0.2	<0.5	<0.2	NA	NA
	OB-7(081816)		8/18/2016	< 0.09	0.146 J	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
OB-10	OB-10 (10/14/04)	10-20'	10/14/2004	< 0.50		<2	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	OB-10 (10/2/2006)		10/2/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	OB-10 (040207)		4/2/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	OB-10 (071012)		10/12/2007	< 0.19		<1	< 1.1	< 0.94	< 1.1	< 0.94	NA	NA
	OB-10(080429)		4/29/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-10(080910)		9/10/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-10(070109)		7/1/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-10(102109)		10/21/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-10(102109) DUP		10/21/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-10(052610)		5/26/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-10(051711)		5/17/2011	< 0.26		<1	< 0.92	< 0.94	< 0.92	< 0.94	NA	NA
	OB-10(051711) DUP		5/17/2011	< 0.26		<1	< 0.92	< 0.94	< 0.92	< 0.94	NA	NA
	OB-10 (042012)		4/20/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA

Table 13A
Summary of Historical and Current Groundwater Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead: 2004-2016
Ringwood Mines/Landfill Superfund Site

Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
	OB-10 (111413)		11/14/2013	< 0.28 J		<1 J	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	OB-10(090914)		9/9/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	DUP(090914)		9/9/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	OB-10(081415)		8/14/2015	<0.2	<0.27	<1	<1.3 B	<0.2	<0.5	<0.2	NA	NA
	OB-10(081616)		8/16/2016	< 0.09	0.172	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
OB-11	OB-11(10/14/04)	25-40'	10/14/2004	1.2		2.6	*< 5.0*	< 3.0	*< 5.0*	< 3.0	NA	NA
	OB-11R(061110)		6/11/2010	5.2		39.1	24.9	< 1.9	3.8	< 1.9	NA	NA
	OB-11R(051811)		5/18/2011	3.7		20.2	23.9	7.4	19.5	2.4 B	NA	NA
	OB-11R (042612)		4/26/2012	3.7		37.9 J	21.0	4.5	7.5 J	3.7 J	NA	NA
	OB-11R (110813)		11/8/2013	4.7		30.2	25.3	< 2.4	7.3	< 2.4	NA	NA
	OB-11R (091114)		9/11/2014	3.5		21.2	26.6	< 1.3	6.1	< 1.3	31.2	0.4 J
	DUP (091114)		9/11/2014	NA		NA	NA	NA	NA	NA	31	< 0.2
OB-11R	OB-11R (032015)	25-40'	3/20/2015	3.2		24.3	NA	NA	NA	NA	NA	NA
	OB-11R (042115)		4/21/2015	2.9		21.2	NA	NA	NA	NA	NA	NA
	OB-11R (060115)		6/1/2015	2.9		22	NA	NA	NA	NA	NA	NA
	OB-11R (080615)		8/6/2015	2.9	4.3J	23	25 B	<0.2	<0.89 B	<0.2	NA	NA
	OB-11R (121515)		12/15/2015	3.1	1.3	30	NA	NA	NA	NA	NA	NA
	OB-11R (052516)[2]		5/25/2016	2.4/2.8	1.8/5.41	19/22	NA	NA	NA	NA	NA	NA
	DUP2 (052516)		5/25/2016	2.5	1.6	20	NA	NA	NA	NA	NA	NA
	OB-11R (081716)		8/17/2016	3.2	5.97	24	23.8	< 0.44	< 0.71	< 0.44	NA	NA
	OB-12 (1101/04)		11/1/2004	< 1.0		<1	*< 5.0*	< 3.0	*< 5.0*	< 3.0	NA	NA
	OB-12 (123004)		12/30/2004	< 0.31		<1	*< 5.0*	< 3.0	*< 5.0*	< 3.0	NA	NA
	OB-12		9/28/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	OB-12(040307)		4/3/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	OB-12(071008)		10/8/2007	< 0.19		<1	< 1.1	< 0.94	< 1.1	< 0.94	NA	NA
	OB-12(080428)		4/28/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-12(080909)		9/9/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-12(063009)		6/30/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
OB-12	OB-12(063009)DUP	9-40'	6/30/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-12(102009)		10/20/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-12(052510)		5/25/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-12(051711)		5/17/2011	< 0.26		<1	< 0.92	< 0.94	< 0.92	< 0.94	NA	NA
	OB-12 (041912)		4/19/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-12 (111813)		11/18/2013	< 0.28		<1	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	OB-12(091514)		9/15/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	OB-12(081015)		8/10/2015	<0.2	<0.27	<1	<0.5	<0.2	<0.5	<0.2	NA	NA
	OB-12(081716)		8/17/2016	< 0.09	< 0.0735	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
	OB-13 (10/13/04)		10/13/2004	< 0.50		<2	*< 5.0*	< 3.0	*< 5.0*	< 3.0	NA	NA
	OB-13		10/3/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	OB-13(040307)		4/3/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	OB-13(071008)		10/8/2007	< 0.19		<1	< 1.1	< 0.94	< 1.1	< 0.94	NA	NA
	OB-13(080428)		4/28/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-13(080910)		9/10/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-13(070109)		7/1/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
OB-13	OB-13(102109)	8-60'	10/21/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-13(052510)		5/25/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-13(051711)		5/17/2011	< 0.26		<1	< 0.92	< 0.94	< 0.92	< 0.94	NA	NA
	OB-13 (042012)		4/20/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-13 (111313)		11/13/2013	< 0.28		<1	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	OB-13(090814)		9/8/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	OB-13(081015)		8/10/2015	<0.2	<0.27	<1	<0.5	<0.2	<0.5	<0.2	NA	NA
	OB-13(081616)		8/16/2016	< 0.09	< 0.075	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
	OB-14A (10/12/04)		10/12/2004	< 0.50		<2	16.7	< 3.0	19.6	< 3.0	NA	NA
	OB-14A		9/27/2006	< 0.21		<1	4.5 J	< 2.6	5.5 J	< 2.6	NA	NA
	OB-14A(040907)		4/9/2007	< 0.21		<1	2.4	3.3	< 1.5	2.9 B	NA	NA
	OB-14A (071011)		10/11/2007	< 0.19		<1	23.1	1.4 B	5.6	< 0.94	NA	NA
	DUP (071011)		10/11/2007	< 0.19		<1	21.6	1 B	5	1.2 B	NA	NA
	OB-14A(080430)		4/30/2008	< 0.26		<1	14.4	4.0	3.8	2.7 B	NA	NA
	OB-14A(080911)		9/11/2008	< 0.26		<1	2.3 BJ	< 1.4	< 1.7	< 1.4	NA	NA
	OB-14A(070609)		7/6/2009	< 0.23		<1	< 3.0	< 1.7	< 3.0	< 1.7	NA	NA

Table 13A
Summary of Historical and Current Groundwater Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead: 2004-2016
Ringwood Mines/Landfill Superfund Site

Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
OB-14A	OB-14A(102309)	4-14'	10/23/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-14A(052810)		5/28/2010	< 0.23		<1	1.8 B	< 1.9	< 1.4	< 1.9	NA	NA
	OB-14A(051911)		5/19/2011	< 0.26		<1	< 0.92	3.8 J	< 0.92	< 3.0	NA	NA
	OB-14A(041812)		4/18/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-14A (110613)		11/6/2013	< 0.28		<1	2.8 B	< 3.6 B	< 1.5	< 2.4	NA	NA
	OB-14A(090314)		9/3/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	OB-14A(091114)		9/11/2014	< 0.21		<1	4.8	< 1.3	3.5	< 1.3	5.2	0.5 J
	OB-14A(081315)		8/13/2015	<0.0.2	<0.27	<1	9.2	0.86 J	1.1 J	<0.2	NA	NA
	OB-14A(052316)[2]		5/23/2016	<1/<0.09	<0.42/0.087J	<1/<0.13	NA	NA	NA	NA	NA	NA
	OB-14A(081616)		8/16/2016	< 0.09	< 0.0833	< 0.37	1 J	0.56 J	< 0.71	< 0.44	NA	NA
OB-14B	OB-14B (10/12/04)	25-35'	10/12/2004	< 0.50		<2	< *5.0*	3.6	< *5.0*	< 3.0	NA	NA
	OB-14B		9/27/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	OB-14B(040907)		4/9/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	OB-14B (071011)		10/11/2007	< 0.19		<1	2.8 B	1.1 B	1.6 B	< 0.94	NA	NA
	OB-14B(080430)		4/30/2008	< 0.26		<1	2.1 B	3.2	< 1.7	2.1 B	NA	NA
	OB-14B(080911)		9/11/2008	< 0.26		<1	2 BJ	< 1.4	2.6 BJ	< 1.4	NA	NA
	OB-14B(070609)		7/6/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-14B(102309)		10/23/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-14B(052810)		5/28/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-14B(051911)		5/19/2011	< 0.26		<1	1.6 J	4.8 J	< 0.92	< 3.0	NA	NA
	OB-14B(041812)		4/18/2012	< 0.22		<1	< 3	< 1.7	< 0.97	< 1.7	NA	NA
	OB-14B (110613)		11/6/2013	< 0.28		<1	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	OB-14B(091114)		9/11/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	OB-14B(081315)		8/13/2015	<0.2	<0.27	<1	2.5	<0.2	1.1 J	<0.2	NA	NA
	OB-14B(052316)[2]		5/23/2016	<1/<0.09	0.18 J/0.32	<1/<0.13	NA	NA	NA	NA	NA	NA
	OB-14B(081616)		8/16/2016	< 0.09	0.28	< 0.37	0.79 J	< 0.44	0.89 J	< 0.44	NA	NA
OB-15B	OB-15B (10/12/04)	25-35'	10/12/2004	< 0.50		<2	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	OB-15B		10/3/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	OB-15B(041207)		4/12/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	OB-15B(071016)		10/16/2007	< 0.19		<1	< 1.1	1.0 B	< 1.1	< 0.94	NA	NA
	OB-15B(080502)		5/2/2008	< 0.26		<1	< 1.7	2.6 B	< 1.7	2.1 B	NA	NA
	OB-15B(080916)		9/16/2008	< 0.26		<1	1.7 B	< 1.4	< 1.7	< 1.4	NA	NA
	OB-15B(070609)		7/6/2009	< 0.23		<1	< 3.0	< 1.7	< 2.4	< 1.7	NA	NA
	OB-15B(102609)		10/26/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-15B(061110)		6/11/2010	< 0.23		<1	3.2	2.0 B	< 1.4	< 1.9	NA	NA
	OB-15B(052311)		5/23/2011	< 0.22		<1	1.2 B	2.0 B	< 0.92	< 0.94	NA	NA
	OB-15B(042412)		4/24/2012	< 0.22		<1	1.5 B	< 1.7	1.4 B	< 1.7	NA	NA
	OB-15B (112013)		11/20/2013	< 0.28 J		<1 J	2.9 B	< 2.4	< 1.5	< 2.4	NA	NA
	OB-15B (090514)		9/5/2014	< 0.21		<1	< 2.6	1.4 B	< 2.6	< 1.3	NA	NA
	OB-15B (082415)		8/24/2015	<0.2	<0.27	<1	1.4 J	<0.63 B	1.1 J	<0.2	NA	NA
	OB-15B (081716)		8/17/2016	< 0.09	< 0.0781	< 0.37	< 0.71	< 0.44	0.78 J	< 0.44	NA	NA
OB-16	OB-16 (10/12/04)	5-15'	10/12/2004	< 0.50		<2	7.6	< 3.0	6.3	< 3.0	NA	NA
	OB-16 (9/27/2006)		9/27/2006	< 0.21		<1	6.2	< 2.6	4.2	< 2.6	NA	NA
	OB-16(041007)		4/10/2007	< 0.21		<1	4.4	< 2.8	3.3	< 2.8	NA	NA
	OB-16(071010)		10/10/2007	< 0.19		<1	8.8	< 0.94	3.6	< 0.94	NA	NA
	OB-16(080501)		5/1/2008	< 0.26		<1	4.6	3.7	< 1.7	1.6 B	NA	NA
	OB-16(080911)		9/11/2008	< 0.26		<1	7.4	< 1.4	2.6 BJ	< 1.4	NA	NA
	OB-16(070809)		7/8/2009	< 0.23		<1	5.1	< 1.7	< 2.4	< 1.7	NA	NA
	OB-16(102309)		10/23/2009	NA		NA	6.1	< 1.7	< 2.4	< 1.7	NA	NA
	OB-16		10/29/2009	< 0.23		<1	NA	NA	NA	NA	NA	NA
	OB-16(052710)		5/27/2010	< 0.23		<1	7.8	< 1.9	< 1.4	< 1.9	NA	NA
	OB-16(051911)		5/19/2011	< 0.26		<1	9.1	< 3.0	6.0	< 3.0	NA	NA
	OB-16(041712)		4/17/2012	< 0.22		<1	6.9 J	< 1.7	< 3	1.8 B	NA	NA
	OB-16 (110613)		11/6/2013	< 0.28		<1	9.9	< 2.4	6.4	< 2.4	NA	NA
	OB-16 (091014)		9/10/2014	< 0.21		<1	4.7	1.3 B	< 2.6	1.8 B	12.7	0.8 J
	OB-16 (081315)		8/13/2015	<0.2	<0.27	<1	12	<0.2	2.3	<0.2	NA	NA
	OB-16 (052316)[2]		5/23/2016	<1/<0.09	<0.42/<0.0735	<1/<0.13	NA	NA	NA	NA	NA	NA
	OB-16 (081616)		8/16/2016	< 0.09	< 0.0781	< 0.37	7.9	< 0.44	< 0.71	< 0.44	NA	NA
	OB-17(10/11/04)		10/11/2004	< 0.50		<2	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	OB-17		9/27/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA

Table 13A
Summary of Historical and Current Groundwater Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead: 2004-2016
Ringwood Mines/Landfill Superfund Site

Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
OB-17	OB-17(041007)	3-13'	4/10/2007	< 0.21		<1	< 1.5	3.5	< 1.5	< 2.8	NA	NA
	OB-17(071010)		10/10/2007	< 0.19		<1	2.5 B	1.7 B	< 1.1	< 0.94	NA	NA
	OB-17(080501)		5/1/2008	< 0.26		<1	< 1.7	2.3 B	< 1.7	2.4 B	NA	NA
	OB-17(080911)		9/11/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-17(070809)		7/8/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-17(102309)		10/23/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-17(052710)		5/27/2010	< 0.23		<1	1.9 B	< 1.9	< 1.4	< 1.9	NA	NA
	OB-17(051911)		5/19/2011	< 0.26		<1	< 0.92	< 3.0	< 0.92	< 3.0	NA	NA
	OB-17(041712)		4/17/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-17 (110613)		11/6/2013	< 0.28		<1	1.9 B	< 2.4	< 1.5	< 2.4	NA	NA
	OB-17(090314)		9/3/2014	< 0.21		<1	3.5	< 1.3	< 2.6	< 1.3	NA	NA
	OB-17(081315)		8/13/2015	<0.2	17	<1	5.0 B	0.36 J	0.58 J	<0.2	NA	NA
	OB-17(052416)[2]		5/24/2016	<1/<0.09	2.9/18.9	<1/<0.13	NA	NA	NA	NA	NA	NA
	OB-17(081616)		8/16/2016	< 0.09	17.5	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
OB-18	OB-18 (10/14/04)	10-20'	10/11/2004	< 0.50		<2	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	OB-18		9/26/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	OB-18(041007)		4/10/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	DUP(041007) (OB-18)		4/10/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	OB-18(071010)		10/10/2007	< 0.19		<1	< 1.1	1.2 B	< 1.1	1.0 B	NA	NA
	OB-18(080501)		5/1/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	1.8 B	NA	NA
	OB-18(080911)		9/11/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-18(070809)		7/8/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-18(102309)		10/23/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-18(052710)		5/27/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-18(051911)		5/19/2011	< 0.26		<1	< 0.92	< 0.94	< 0.92	< 1.1	NA	NA
	OB-18(041712)		4/17/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-18 (110613)		11/6/2013	< 0.28		<1	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	OB-18(09032014)		9/3/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	OB-18(081315)		8/13/2015	<0.2	<0.27	<1	1.4 J	<0.2	<0.5	<0.2	NA	NA
	OB-18(052316)[2]		5/23/2016	<1/<0.09	<0.42/<0.0735	<1/<0.13	1.4 J	<0.2	<0.5	<0.2	NA	NA
	OB-18(081616)		8/16/2016	< 0.09	< 0.0798	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
OB-19	MW-19	5-20'	10/3/2006	0.55 J		3.1	3.1	9.4	< 1.5	< 2.6	NA	NA
	OB-19(040907)		4/9/2007	0.59 J		1.5	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	OB-19(071015)		10/15/2007	< 0.19		<1	1.9 B	1.3 B	< 1.1	1.1 B	NA	NA
	DUP(071015)		10/15/2007	< 0.19		<1	1.8 B	1.0 B	< 1.1	< 0.94	NA	NA
	OB-19(080429)		4/29/2008	0.56 J		1.5	< 1.7	1.4 B	< 1.7	< 1.4	NA	NA
	OB-19(080912)		9/12/2008	0.37 J		4.3	4 J	< 1.4	< 1.7	< 1.4	NA	NA
	OB-19(070709)		7/7/2009	1.2		6.2	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-19(102709)		10/27/2009	0.39 J		1.4 J	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-19(060110)		6/1/2010	0.29 J		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-19 (052011)		5/20/2011	0.90 J		2.8	< 0.92	3.5	< 0.92	1.0 B	NA	NA
	OB-19 (042512)		4/25/2012	0.32 J		2.3	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-19(111113)		11/11/2013	< 0.28		<1	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	OB-19 (090414)		9/4/2014	< 0.21		<1	6.0	< 1.3	< 2.6	< 1.3	NA	NA
	OB-19(080515)		8/5/2015	<0.2	<0.27	<1	<1.6 B	<0.44 J	<0.87 B	<0.2	NA	NA
	OB-19 (121515)		12/15/2015	1.4	1.89	8.7	NA	NA	NA	NA	NA	NA
	OB-19 (052516)[2]		5/23/2016	1.3/1.5	1.3/4.77	6.8/7.9	NA	NA	NA	NA	NA	NA
	OB-19 (081716)		8/17/2016	0.23 J	0.878	1.5	0.9 J	0.47 J	< 0.71	< 0.44	NA	NA
OB-20A	MW-20	5-20'	10/4/2006	0.36 J		<1	13.9	< 2.6	13.1	< 2.6	NA	NA
	OB-20A(040307)		4/3/2007	0.48 J		<1	24.6	< 2.8	20.8	< 2.8	NA	NA
	OB-20A (071011)		10/11/2007	0.36 J		<1	18.6	3	2.4 B	< 0.94	NA	NA
	OB-20A(080429)		4/29/2008	< 0.26		<1	3.7	2.1 B	< 1.7	1.8 B	NA	NA
	OB-20A(080915)		9/15/2008	< 0.26		<1	7.8	< 1.4	5.3	< 1.4	NA	NA
	OB-20A(070909)		7/9/2009	< 0.23		<1	< 3.0	< 1.7	< 3.0	< 1.7	NA	NA
	OB-20A(102809)		10/28/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-20A(060210)		6/2/2010	< 0.23		<1	7.9	1.9 B	< 1.4	< 1.9	NA	NA
	OB-20A(051811)		5/18/2011	< 0.22		<1	< 0.92	5.6	< 0.92	1.0 J	NA	NA
	OB-20A(051811) DUP		5/18/2011	< 0.22		<1	< 0.92	2.8 B	< 0.92	< 0.94	NA	NA
	OB-20A (042712)		4/27/2012	< 0.22		<1	< 3.0	3.0 J	< 3.0	< 1.7	NA	NA
	OB-20A (110813)		11/8/2013	< 0.28		<1	7.2	11.2 J	3.4	< 2.4	NA	NA

Table 13A
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Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
	DUP (110813)		11/8/2013	< 0.28		<1	5.7	< 2.4 J	2.2 B	< 2.4	NA	NA
	OB-20A (090514)		9/5/2014	< 0.21		<1	7.7	< 1.3	3.9	< 1.3	NA	NA
	OB-20A (031915)		3/19/2015	<0.21		<1	NA	NA	NA	NA	NA	NA
	OB-20A (042115)		4/21/2015	<0.24		<.5	NA	NA	NA	NA	NA	NA
	OB-20A (060115)		6/1/2015	<0.20		<1	NA	NA	NA	NA	NA	NA
	OB-20A (080515)		8/5/2015	<0.2	<0.27	<1	7.1	<0.44 J	2.0 B	<0.2	NA	NA
	OB-20A (121415)		12/14/2015	<0.09	<0.053	<1	NA	NA	NA	NA	NA	NA
	OB-20A (052616)[2]		5/26/2016	<1/<0.09	<0.42/0.175	<1/<0.13	NA	NA	NA	NA	NA	NA
	OB-20A (081816)		8/18/2016	< 0.09	0.147 J	< 0.37	2.3	0.59 J	< 0.71	< 0.44	NA	NA
	MW-20 OB-34		10/4/2006	2.0		4.5	1.5 B	3.1	< 1.5	< 2.6	NA	NA
	REP100406		10/4/2006	1.9		3.8	1.9 B	3.5	1.6 B	< 2.6	NA	NA
	OB20B(040507)		4/5/2007	1.4		1.8	1.5 B	< 2.8	< 1.5	2.9 B	NA	NA
	DUP(040507) (OB20B)(040507)		4/5/2007	1.5		1.8	< 1.5	< 2.8	< 1.5	3.6	NA	NA
	OB-20B (071011)		10/11/2007	1.5		2.8	1.2 B	1.1 B	< 1.1	1 B	NA	NA
	OB-20B(080429)		4/29/2008	1.4		2.1	< 1.7	3.8	< 1.7	2.4 B	NA	NA
	OB-20B(080915)		9/15/2008	0.90 J		1.9	3.8	< 1.4	< 1.7	< 1.4	NA	NA
	OB-20B(070909)		7/9/2009	0.83 J		1.6	< 3.0	< 1.7	< 2.4	< 1.7	NA	NA
	OB-20B(102809)		10/28/2009	0.77 J		1.2	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-20B(060210)		6/2/2010	1.1		1.3	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-20B(051811)		5/18/2011	0.86 J		1.5	< 0.92	2.5 B	< 0.92	2.2 B	NA	NA
OB-20B	OB-20B (042712)	24-34'	4/27/2012	0.66 J		1.6 J	< 0.97	2.8 J	< 0.97	< 1.7	NA	NA
	OB-20B (110813)		11/8/2013	0.52 J		1.5	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	OB-20B (090514)		9/5/2014	0.37 J		1.1	2.7 B	< 1.3	2.9 B	< 1.3	NA	NA
	OB-20B(100914)		10/9/2014	0.40 J		1.6	3.9	< 1.3	3.1	< 1.3	NA	NA
	OB-20B(100914)		10/9/2014	0.40 J		1.5	3.4	< 1.3	3.7	< 1.3	NA	NA
	OB-20B(031915		3/19/2015	0.46J		3.6	NA	NA	NA	NA	NA	NA
	OB-20B(042115)		4/21/2015	0.36J		2.4	NA	NA	NA	NA	NA	NA
	OB-20B(060115)		6/1/2015	0.27J		1.7	NA	NA	NA	NA	NA	NA
	OB-20B(080515)		8/5/2015	0.27 J	0.95J	1.8	1.5 J	0.28 J	<1.1 B	<0.2	NA	NA
	OB-20B(121415)		12/14/2015	0.5J	1.25	4.4	NA	NA	NA	NA	NA	NA
	DUP(121415)		12/14/2015	0.51J	1.37	6.7	NA	NA	NA	NA	NA	NA
	OB-20B(052416)[2]		5/25/2016	0.28J/0.29J	1.0/2.0	2.6/2.5	NA	NA	NA	NA	NA	NA
	OB-20B(081816)		8/18/2016	0.15 J	1.26	3.9	1.6 J	< 0.44	< 0.71	< 0.44	NA	NA
	MW-21		10/5/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	REP100506		10/5/2006	< 0.21		NA	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	OB-21(040907)		4/9/2007	< 0.21		<1	10.4	29.2	< 1.5	< 2.8	NA	NA
	OB-21(071015)		10/15/2007	< 0.19		<1	9.0 B	27.0	< 1.1	< 0.94	NA	NA
	OB-21(080429)		4/29/2008	< 0.26		<1	< 1.7	2.1 B	< 1.7	< 1.4	NA	NA
	OB-21(080912)		9/12/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	OB-21(070709)		7/7/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-21(070709) DUP		7/7/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-21(102709)		10/27/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
OB-21	OB-21(060110)	6-21'	6/1/2010	< 0.23		<1	< 1.4	2.5 B	< 1.4	< 1.9	NA	NA
	OB-21(051811)		5/18/2011	< 0.22		<1	< 0.92	2.8 B	< 0.92	< 0.94	NA	NA
	OB-21(042412)		4/24/2012	< 0.22		<1	< 3.0	< 1.7	< 0.97	< 1.7	NA	NA
	OB-21 (110713)		11/7/2013	< 0.28 J		<1 J	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	OB-21 (090414)		9/4/2014	< 0.21		<1	2.9 B	< 1.3	< 2.6	< 1.3	NA	NA
	DUP (090414)		9/4/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	OB-21(042015)		4/20/2015	<0.24		<.5	NA	NA	NA	NA	NA	NA
	OB-21(080615)		8/16/2015	<0.2	<0.27	<1	<1.4 B	1.8 J	<0.56 B	0.24 J	NA	NA
	OB-21(081816)		8/18/2016	< 0.09	< 0.0781	< 0.37	< 0.71	1.5	< 0.71	< 0.44	NA	NA
	OB-22		11/30/2006	< 0.21		<1	9.5	19.5	< 1.5	< 2.8	NA	NA
	OB-22(040407)		4/4/2007	< 0.21		<1	5.2	9.1	< 1.5	< 2.8	NA	NA
	OB-22(080501)		5/1/2008	< 0.26		<1	< 1.7	2.3 B	< 1.7	< 1.4	NA	NA
OB-22	OB-22(070809)	10-20'	7/8/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-22(052810)		5/28/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-22(051911)		5/19/2011	< 0.26		<1	< 0.92	< 0.94	< 0.92	< 1.1	NA	NA
	OB-22 (041912)		4/19/2012	< 0.22	NA	<1	NA	NA	NA	NA	NA	NA
	OB-23		11/28/2006	< 0.21		<1	1.8 B	< 2.8 J	< 1.5	3.0 J	NA	NA
	OB-23(041107)		4/11/2007	< 0.21		<1	< 1.5	24.1	< 1.5	< 2.8	NA	NA

Table 13A
Summary of Historical and Current Groundwater Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead: 2004-2016
Ringwood Mines/Landfill Superfund Site

Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
OB-23	OB-23(080502)	10-20'	5/2/2008	< 0.26		<1	< 1.7	2.5 B	< 1.7	< 1.4	NA	NA
	OB-23(070809)		7/8/2009	< 0.23		<1	< 2.4	7.5	< 2.4	< 1.7	NA	NA
	OB-23(052810)		5/28/2010	< 0.23		<1	2.2 B	2.2 B	< 1.4	< 1.9	NA	NA
	OB-23(051911)		5/19/2011	< 0.26		<1	< 0.92	5.5 J	< 0.92	< 3.0	NA	NA
OB-24	OB-24	5-15'	11/28/2006	< 0.21		<1	< 1.5	2.8 B	< 1.5	< 2.8	NA	NA
	OB-24(041107)		4/11/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	OB-24(071012)		10/12/2007	< 0.19		<1	1.9 B	1.2 BJ	< 1.1	1.5 BJ	NA	NA
	OB-24(080430)		4/30/2008	< 0.26		<1	1.7 B	1.5 B	< 1.7	< 1.4	NA	NA
	DUP-02(080430) (OB-24)		4/30/2008	< 0.26		<1	< 1.7	1.6 B	1.7 B	< 1.4	NA	NA
	OB-24(080911)		9/11/2008	< 0.26		<1	2.5 BJ	< 1.4	< 1.7	< 1.4	NA	NA
	OB-24(070809)		7/8/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-24(102609)		10/26/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-24(052810)		5/28/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-24(051911)		5/19/2011	< 0.26		<1	< 0.92	4.2 J	< 0.92	< 3.0	NA	NA
	OB-24(041812)		4/18/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-24 (110613)		11/6/2013	< 0.28		<1	< 1.5	< 3.0 B	< 1.5	< 2.4	NA	NA
	DUP (110613)		11/6/2013	< 0.28		<1	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	OB-24(090314)		9/3/2014	0.50		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	OB-24(081315)		8/13/2015	<0.2	<0.27	<1	1.8 J	0.24 J	0.64 J	<0.2	NA	NA
	OB-24(052416)[2]		5/24/2016	<1/<0.09	<0.40/<0.0735	<1/<0.13	NA	NA	NA	NA	NA	NA
	OB-24(081616)		8/16/2016	< 0.09	< 0.075	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
OB-25	OB-25	10-20'	11/30/2006	< 0.21		<1	9.1 J	31.5 J	< 1.5	< 2.8	NA	NA
	REP-061130		11/30/2006	< 0.21		<1	23.1 J	59.3 J	< 1.5	< 2.8	NA	NA
	OB-25(041207)		4/12/2007	< 0.21		<1	7.1	594	< 1.5	< 2.8	NA	NA
	OB-25(071012)		10/12/2007	< 0.19		<1	1.1 B	3.1	< 1.1	1.5 B	NA	NA
	OB-25(080429)		4/29/2008	< 0.26		<1	2.1 B	13.8	< 1.7	< 1.4	NA	NA
	OB-25(080918)		9/18/2008	< 0.26		<1	19.8	45.7	< 1.7	< 1.4	NA	NA
	OB-25(070609)		7/6/2009	< 0.23		<1	8.4 J	19.9	< 2.4	< 1.7	NA	NA
	OB-25(102609)		10/26/2009	< 0.23		<1	< 2.4	4.3	< 2.4	2.0 B	NA	NA
	OB-25(060110)		6/1/2010	< 0.23		<1	1.7 B	53.6	< 1.4	< 1.9	NA	NA
	OB-25 (052011)		5/20/2011	< 0.26		<1	< 0.92	4.2	< 0.92	< 0.94	NA	NA
	OB-25 (042012)		4/20/2012	< 0.22		<1	2.1 J	17.2	< 0.97	< 1.7	NA	NA
	OB-25 (111213)		11/12/2013	< 0.28		<1	9.6 J	40.3	NA	NA	NA	NA
	OB-25 (090914)		9/9/2014	< 0.21		<1	< 2.6	3.8	< 2.6	2.2 B	NA	NA
	OB-25(081215)		8/25/2015	<0.2	<0.27	<1	4.1 B	11	1.0 J	1.0 J	NA	NA
	OB-25(081816)		8/18/2016	< 0.09	0.178	< 0.37	0.97 J	6.8	< 0.71	< 0.44	NA	NA
OB-26	OB-26(080509)	9-24'	5/9/2008	< 0.26		<1	< 1.7 B	1.7 B	< 1.7 B	1.5 B	NA	NA
	OB-26(080916)		9/16/2008	< 0.26		<1	2.7 B	< 1.4	< 1.7	< 1.4	NA	NA
	OB-26(070209)		7/2/2009	< 0.23		<1	< 2.4	< 3.0	< 2.4	< 1.7	NA	NA
	OB-26(102209)		10/22/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	OB-26(052610)		5/26/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-26(051711)		5/17/2011	< 0.26		<1	< 0.92	< 0.94	< 0.92	< 0.94	NA	NA
	OB-26 (042012)		4/20/2012	< 0.22		<1	< 0.97	5.0 J	< 0.97	< 1.7	NA	NA
OB-27	OB-27(060110)	24.5-39.5'	6/1/2010	5.9		159	20.5	< 1.9	2.9 B	< 1.9	NA	NA
	OB-27(051811)		5/18/2011	6.5		176	NA	NA	NA	NA	NA	NA
	OB-27 (042512)		4/25/2012	5.5		208	21.5	< 1.7	18.0	< 1.7	NA	NA
	OB-27(111113)		11/11/2013	3.5		80.8	25.5	< 2.4	5.6	< 2.4	NA	NA
	DUP(111113)		11/11/2013	3.5		82.1	24.5	< 2.4	9.5	< 2.4	NA	NA
	OB-27 (091014)		9/10/2014	2.6		89.4	23.0	1.4 B	4.5	< 1.3	28	0.3 J
	OB-27 (032015)		3/20/2015	2.8		76.7	NA	NA	NA	NA	NA	NA
	OB-27 (042115)		4/21/2015	3.1		87.2	NA	NA	NA	NA	NA	NA
	OB-27 (060115)		6/1/2015	3.0		79	NA	NA	NA	NA	NA	NA
	OB-27(080615)		8/6/2015	3.0	6.2J	83	26 B	<0.2	<0.92 B	<0.2	NA	NA
	OB-27(121415)		12/14/2015	1.9	1.28	48 J	NA	NA	NA	NA	NA	NA
	OB-27(050216)[2]		5/2/2016	2.1/2.4	1.2/7.32	55/63	NA	NA	NA	NA	NA	NA
	OB-27(081716)		8/17/2016	2.3	6.47	61	22.5	1.1 J	< 0.71	< 0.44	NA	NA
OB-28	OB-28(052710)	3-18'	5/27/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	OB-28(051911)		5/19/2011	< 0.26		<1	9.8	24.4	< 0.92	4.0 J	NA	NA
	OB-28(041712)		4/17/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-28 (110613)		11/6/2013	< 0.28	.	<1	< 1.5	< 4.2 B	< 1.5	< 2.4	NA	NA

Table 13A
Summary of Historical and Current Groundwater Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead: 2004-2016
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Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
OB-28	OB-28 (091014)	3-18	9/10/2014	< 0.21		<1	< 2.6	1.7 B	< 2.6	1.5 B	NA	NA
	OB-28 (081315)		8/13/2015	<0.2	<0.27	<1	1.5 J	1.0 J	0.82 J	<0.2	NA	NA
	OB-28 (052316)[2]		5/23/2016	<1/<0.09	<0.40/<0.0735	<1/<0.13	NA	NA	NA	NA	NA	NA
	OB-28 (081616)		8/16/2016	< 0.09	< 0.0833	< 0.37	< 0.71	0.79 J	< 0.71	< 0.44	NA	NA
OB-29	OB-29(051112)	18-35'	5/11/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-29 (111413)		11/14/2013	< 0.28 J		<1 J	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	OB-29(090914)		9/9/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	1.6 B	NA	NA
	OB-29(081215)		8/12/2015	<0.2	<0.27	<1	<1.5 B	0.54 J	12	<0.2	NA	NA
	OB-29(081616))		8/16/2016	< 0.09	0.156	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
OB-30A	OB-30A(051012)	8-18'	5/10/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
OB-30B	OB-30B(051112)	21-36'	5/11/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-30B (110713)		11/7/2013	< 0.28		<1	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	OB-30B(090414)		9/4/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	OB-30B (080615)		8/6/2015	<0.2	<0.27	<1	<0.89 B	<0.2	0.58 J	0.33 J	NA	NA
	OB-30B (081716)		8/17/2016	< 0.09	0.266	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
OB-30C	OB-30C (5/9/2012)	40-50'	5/9/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	OB-30C (110713)		11/7/2013	< 0.28		<1	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	OB-30C(090414)		9/4/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	OB-30C(080615)		8/6/2015	<0.0.2	<0.27	<1	2.3 B	1.3 J	1.2 J	<0.2	NA	NA
	OB-30C (081716)		8/17/2016	< 0.09	0.11 J	< 0.37	0.82 J	0.52 J	0.88 J	< 0.44	NA	NA
OB-31	OB-31 (052516)[2]	23-33'	5/25/2016	<1/<0.09	0.41/1.74	2.7/2.8	NA	NA	NA	NA	NA	NA
	OB-31 (081716)		8/17/2016	0.14 J	1.9	4.9	12.8	0.66 J	< 0.71	< 0.44	NA	NA
OB-32	OB-32 (052516)[2]	10-20'	5/25/2016	<1/<0.09	<0.40/0.412	<1/0.3J	NA	NA	NA	NA	NA	NA
	OB-32 (081716)		8/17/2016	< 0.09	0.422	< 0.37	15.2	< 0.44	< 0.71	< 0.44	NA	NA
OB-33	OB-33 (052416)[2]	66-76'	5/24/2016	<1/<0.09	<0.42 /<0.0735	<1/<0.13	NA	NA	NA	NA	NA	NA
	OB-33 (081716)		8/17/2016	< 0.09	< 0.0765	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
RW-1	RW-1 (110104)	10-31'	11/1/2004	< 1.0		<1	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	RW-1(10-30)(4/1/05)		4/1/2005	< 0.31		<1	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	DUP040105		4/1/2005	< 0.31		<1	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	RW-1 (10-30)		10/9/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	RW-1(10-31)(041807)		4/18/2007	< 0.21		<1	< 1.5	3.8	< 1.5	< 2.8	NA	NA
	RW1(10-31)		10/9/2007	< 0.19		<1	< 1.1	2.5 B	< 1.1	< 0.94	NA	NA
	RW1(11-31) (080506)		5/6/2008	< 0.26		<1	< 1.7	3.4	< 1.7	1.5 B	NA	NA
	RW1(11-31)		9/18/2008	9.8		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	RW-1(10-30)		7/17/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-1(11-31)		10/20/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-1(58-78)(4/1/05)	58-79'	4/1/2005	< 0.31		<1	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	RW-1 (58-78)		10/9/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	RW-1(58-79)(041807)		4/18/2007	< 0.21		<1	< 1.5	3.1	< 1.5	< 2.8	NA	NA
	RW1(58-79)		10/10/2007	< 0.19		<1	< 1.1	< 0.94	< 1.1	< 0.94	NA	NA
	RW1(59-79) (080506)		5/6/2008	< 0.26		<1	< 1.7	2.0 B	< 1.7	2.2 B	NA	NA
	RW1(59-79)		9/19/2008	8.6		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	RW1(59-79) DUP		9/19/2008	8.4		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	RW-1(58-78)		7/17/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-1(59-79)		10/20/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-1(59-79) DUP		10/20/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
RW-1	RW-1(64-74) (6/30/2010)	64-74'	6/30/2010	< 0.23		<1	4.5	< 1.9	2.2 B	< 1.9	NA	NA
	RW-1(64-74)(052611)		5/26/2011	< 0.22		<1	4.0	< 0.94	3.2	< 3.0	NA	NA
	RW-1 (64-74)(041712)		4/17/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	RW-1(97-117)(4/1/05)	97-118'	4/1/2005	< 0.31		<1	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	RW-1 (97-117)		10/10/2006	< 0.21		<1	< 1.5	< 2.6 J	< 1.5	4.5 J	NA	NA
	RW-1(97-118)(041807)		4/18/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	RW1(97-118)		10/10/2007	< 0.19		<1	< 1.1	< 0.94	< 1.1	< 0.94	NA	NA
	RW-1(98-118) (5/7/2008)		5/7/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	DUP-03(080507) (RW-1(98-118)		5/7/2008	< 0.26		<1	< 1.7	1.9 B	< 1.7	2.6 B	NA	NA
	RW1(98-118)		9/19/2008	2.0		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	RW-1(97-117)		7/17/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-1(98-118)		10/20/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
RW-1	RW-1(125.5-151) (3/30/05)		3/30/2005	< 0.31		<1	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	RW-1 (125-145)		10/10/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA

Table 13A
Summary of Historical and Current Groundwater Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead: 2004-2016
Ringwood Mines/Landfill Superfund Site

Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
RW-2	RW-1(125-146)(041807)	125-151'	4/18/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	RW1(125-146)		10/10/2007	< 0.19		<1	< 1.1	1.2 B	< 1.1	< 0.94	NA	NA
	RW-1(126-146) (5/7/08)		5/7/2008	< 0.26		<1	< 1.7	2.1 B	< 1.7	2.2 B	NA	NA
	RW-1 (126-146)		9/22/2008	6.2		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	RW-1(126-146) (7/17/2009)		7/17/2009	< 0.23		<1	< 2.4	2.3 B	< 2.4	< 1.7	NA	NA
	RW-1(126-146)		10/20/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-1(131-141) (6/30/2010)	131-141'	6/30/2010	< 0.23		<1	< 1.4	< 1.9	2.5 B	4.9	NA	NA
	RW-1(131-141)(052611)		5/26/2011	< 0.22		<1	2.3 B	< 0.94	1.0 B	< 0.94	NA	NA
	RW-1 (131-141)(041712)		4/17/2012	< 0.22		<1	3 J	< 1.7	< 3	< 1.7	NA	NA
	RW-1(131-141)		6/26/2012	NA		NA	NA	NA	NA	NA	NA	NA
	RW-2 (19.0-48.5')	19-20'	10/26/2004	< 1.0		<1	*< 5.0*	< 3.0	*< 5.0*	< 3.0	NA	NA
	RW2-(19-49)		10/4/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	RW-2(19-50)((041007)		4/10/2007	< 0.21		<1	< 1.5	4.1	< 1.5	< 2.8	NA	NA
	RW2(19-50)		10/15/2007	< 0.19		<1	< 1.1	1.2 B	< 1.1	< 0.94	NA	NA
	RW-2(20-50) (5/1/2008)		5/1/2008	< 0.26		<1	< 1.7	4.3	< 1.7	2.9 B	NA	NA
	RW2(20-50)		9/16/2008	7.4		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	RW-2(20-50) (7/10/2009)		7/10/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-2(20-50) DUP		7/10/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-2(20-50) (10/26/2009)		10/26/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-2(20-50) (10/26/2009) DUP		10/26/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-2 (102.5-132.0')	102-133	10/26/2004	< 1.0		<1	*< 5.0*	7.3	*< 5.0*	< 3.0	NA	NA
	RW2-(102-132)		10/4/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	3.2	NA	NA
	RW-2(102-133)(041007)		4/10/2007	< 0.21		<1	< 1.5	11.2	< 1.5	< 2.8	NA	NA
	RW2(102-133)		10/15/2007	< 0.19		<1	< 1.1 J	< 0.94	1.1 BJ	< 0.94	NA	NA
	RW-2(103-133) (5/1/2008)		5/1/2008	< 0.26		<1	< 1.7	5.4	< 1.7	2.1 B	NA	NA
	RW-2 (103-133)		9/17/2008	43.8		<1	1.7 B	< 1.4	< 1.7	< 1.4	NA	NA
	RW-2 (102-133) (7/13/2009)		7/13/2009	< 0.23		<1	< 2.4	< 3.0	< 2.4	< 1.7	NA	NA
	RW-2(103-133)		10/27/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
RW-2	RW-2 (161.0'-190.5')	161-192'	10/27/2004	< 1.0		<1	*< 5.0*	64.6	*< 5.0*	< 3.0	NA	NA
	RW-2(161-192)		4/16/2007	< 0.21		<1	< 1.5	14.0	< 1.5	< 2.8	NA	NA
	RW2(161-192)		10/16/2007	< 0.19		<1	< 1.1	1.4 B	< 1.1	< 0.94	NA	NA
	RW-2 (162-192)		7/13/2009	< 0.23		<1	< 2.4	< 3.0	< 2.4	< 1.7	NA	NA
	RW-2(162-192)		10/27/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-2 (278'-307.5')	278-309'	10/27/2004	< 1.0		<1	*< 5.0*	7.6 J	*< 5.0*	< 3.0	NA	NA
	REP102704		10/27/2004	< 1.0		<1	*< 5.0*	26.4 J	*< 5.0*	3.2	NA	NA
	RW-2 (278-308)		10/6/2006	< 0.21		<1	< 1.5	2.8 B	< 1.5	3.6	NA	NA
	RW-2(278-309)(041707)		4/17/2007	< 0.21		<1	< 1.5	5.9	< 1.5	5.2	NA	NA
	RW2(278-309)		10/16/2007	< 0.19		<1	< 1.1	3.2	< 1.1	< 0.94	NA	NA
	RW-2(279-309) (9/11/2008)		9/11/2008	*< 6*		*<1*	< 1.7	21.2	< 1.7	< 1.4	NA	NA
	RW-2 (279-309) (7/13/2009)		7/13/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-2(279-309)		10/27/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-2(279-289)		6/29/2010	< 0.23		<1	3.0	< 1.9	3.7	< 1.9	NA	NA
	RW-2(279-289)(052411)		5/24/2011	< 0.22		<1	< 0.92	< 0.94	< 0.92	< 0.94	NA	NA
	RW-2(279-289)(050812)		5/8/2012	< 0.22		<1	< 0.97	< 1.7	1.3 J	< 1.7	NA	NA
	RW-2 (279-289)(111913)		11/19/2013	< 0.28		<1	3.8	< 2.4	< 1.5	< 2.4	NA	NA
	RW-2(279-289)(092614)		9/26/2014	< 0.21		<1	5.2	< 1.3	4.1	< 1.3	NA	NA
	RW-2(279-289)(082115)		8/21/2015	0.22 J	10	<1	1.9 J	<0.2	2.1	<0.2	NA	NA
	RW-2(279-289)(082216)		8/22/2016	0.34 J	11.9	< 0.37	1.7 J	< 0.44	1.9 J	< 0.44	NA	NA
	RW-2 (441-470.5')	441-472'	10/28/2004	< 1.0		<1	6.8	45.5	*< 5.0*	9.3	NA	NA
	RW-2(441-472) (4/17/2007)		4/17/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	RW2(441-472)		10/17/2007	< 0.19		<1	1.3 B	3.3	< 1.1	< 0.94	NA	NA
	RW-2 (442-472)		5/5/2008	< 0.26		<1	< 1.7	22.2	< 1.7	3.9	NA	NA
	RW-2(441-472) (7/14/2009)		7/14/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-2(441-472)		10/28/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-2(452-462) (6/29/2010)		6/29/2010	< 0.23		<1	NA	NA	NA	NA	NA	NA
	RW-2(452-462)		6/3/2011	0.24 J		<1	< 3.0	< 3.0	2.2 J	< 3.0	NA	NA
	RW-2(452-462)(051012)		5/10/2012	0.23 J		<1	2.5 B	< 1.7	< 3.0	< 1.7	NA	NA
	RW-2 (452-462)(111913)		11/19/2013	< 0.28		<1	< 1.5	< 2.4	3.4	< 2.4	NA	NA
	RW-2(452-462)(092614)		9/26/2014	< 0.21		<1	8.3	5.8	7.2	1.8 B	NA	NA
	RW-2(452-462)(082515)		8/25/2015	0.24 J	4.7J	<1	5.4	0.2 J	5.6 J	<0.2	NA	NA

Table 13A
Summary of Historical and Current Groundwater Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead: 2004-2016
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Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
	RW-2(452-462)(082216)		8/22/2016	0.2 J	0.901	< 0.37	4.3	< 0.44	4.8	< 0.44	NA	NA
RW-3	RW-3 (65-100')	62-100'	10/29/2004	< 1.0		<1	< *5.0*	< 3.0	< *5.0*	< 3.0	NA	NA
	RW-3(65-100)		9/29/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	RW-3(62-98)(040507)		4/5/2007	< 0.21		<1	< 1.5	3.0	< 1.5	< 2.8	NA	NA
	RW3(62-98)		10/12/2007	< 0.19		<1	< 1.1	< 0.94	< 1.1	< 0.94	NA	NA
	RW-3(62-98) (4/30/2009)		4/30/2008	< 0.26		<1	< 1.7	4.7	< 1.7	2.3 B	NA	NA
	RW3 (62-98)		9/8/2008	< 0.26		<1	< 1.7	1.6 B	< 1.7	< 1.4	NA	NA
	RW-3(62-98) (7/6/2009)		7/6/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-3(62-98)		10/19/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-3(77-87)		6/28/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	RW-3(052511)		5/25/2011	< 0.22		<1	< 0.92	< 0.94	< 0.92	< 0.94	NA	NA
	RW-3 (77-87)(042612)		4/27/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	RW-3(77-87)(111113)		11/11/2013	< 0.28		<1	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	RW-3(77-87)(091514)		9/15/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	RW-3(77-87)(080615)		8/6/2015	<0.2	22	<1	<0.88 B	0.26 J	<0.5	<0.2	NA	NA
	RW-3(77-87)(121815)		12/18/2015	<0.09	8.27	<1	NA	NA	NA	NA	NA	NA
	RW-3 (052716)[2]		5/27/2016	<1/<0.09	8.6/28.7	<1/<0.13	NA	NA	NA	NA	NA	NA
	RW-3 (052716) DUP		5/27/2016	<1	6.3	<1	NA	NA	NA	NA	NA	NA
	RW-3(77-87)(082416)		8/24/2016	< 0.09	29.1	< 0.37	< 0.64	< 0.38	< 0.64	< 0.38	NA	NA
RW-3D	RW-3D(140-165)	140-165'	6/9/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	RW-3D(140-165) DUP		6/9/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	RW-3D(140-165)(052411)		5/24/2011	< 0.22		2.9	< 0.92	1.5 B	< 0.92	< 0.94	NA	NA
	RW-3D(170-181)	170-181'	6/9/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	RW-3D(170-181)(052411)		5/24/2011	< 0.22		2.7	< 0.92	1.9 B	< 0.92	< 0.94	NA	NA
	RW-3D(170-181)(052411) DUP		5/24/2011	< 0.22		2.9	1.6 B	1.5 B	< 0.92	< 0.94	NA	NA
RW-3DD	RW-3DD (175-180)(043012)	175-180'	4/30/2012	< 0.22		<1	10.4	< 1.7	5.4	< 1.7	NA	NA
	RW-3DD (175-180)(111213)		11/12/2013	< 0.28		<1	21.4	< 2.4	23.1	< 2.4	NA	NA
	RW-3DD (175-180)(091214)		9/12/2014	1.1		<1	13.6 J	< 1.3	18.7 J	< 4.5 B	19.2	18
	RW-3DD (175-180)(081015)		8/10/2015	0.44 J	20	<1	20	<0.2	19	<0.2	NA	NA
	RW-3DD (175-180)(121715)		12/17/2015	0.25J	8.95	<1	NA	NA	NA	NA	NA	NA
	RW-3DD (175-180)(053116)[2]		5/31/2016	0.25J/0.43J	4.9/28.1	<1/<0.13	NA	NA	NA	NA	NA	NA
	RW-3DD (175-180)(082316)		8/23/2016	0.26 J	152/29.2J/20.9*	< 0.37	16.8	< 0.38	16.6	< 0.38	NA	NA
RW-3DS	RW-3DS (155-160)(043012)	155-160'	4/30/2012	< 0.22		<1	7.4	< 1.7	3.3	< 1.7	NA	NA
	RW-3DS (155-160)(111213)		11/12/2013	< 0.28		<1	< *5.9 B*	3.5	8.1 J	< 3.0 B	NA	NA
	RW-3DS (155-160)(091114)		9/11/2014	< 0.21		<1	9.6	< 1.3	11.8	< 1.3	NA	NA
	RW-3DS (155-160)(082515)		8/25/2015	<0.2	38J	<1	12	<0.2	14	< 1	NA	NA
	RW-3DS (155-160)(121715)		12/17/2015	0.12J	5.25	<1	NA	NA	NA	NA	NA	NA
	RW-3DS (155-160)(052716)[2]		5/27/2016	0.093J/<0.09	3.3/25.5	<1/<0.13	NA	NA	NA	NA	NA	NA
	RW-3DS (155-160)(082316)		8/23/2016	0.13 J	25.1	< 0.37	14.7	< 0.38	13.5	< 0.38	NA	NA
RW-4	RW-4 (56.5-75.5')	56-77'	10/22/2004	< 0.31		<1	< *5.0*	4.4	< *5.0*	< 3.0	NA	NA
	RW-4 (57-77)		10/2/2006	< 0.21		<1	< 1.5	6.3	< 1.5	< 2.6	NA	NA
	RW-4(56-77)(040607)		4/6/2007	< 0.21		<1	< 1.5	5.0	< 1.5	< 2.8	NA	NA
	RW4 (56-77)		10/11/2007	< 0.19		<1	< 1.1	1.6 B	< 1.1	< 0.94	NA	NA
	RW-4(57-77) (4/28/2008)		4/28/2008	< 0.26		<1	< 1.7	3.4	< 1.7	< 1.4	NA	NA
	RW4(57-77)		9/15/2008	14.3		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	RW-4(56-77)		6/30/2009	< 0.23		<1	< 2.4	3.4 J	< 2.4	< 1.7	NA	NA
	RW-4(57-77)		10/21/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-4 (108-127')	108-129'	10/22/2004	< 0.31		<1	< *5.0*	18.6	< *5.0*	< 3.0	NA	NA
	RW-4 (108-128)		10/2/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	RW-4(108-129)		4/9/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	RW4 (108-129)		10/11/2007	< 0.19		<1	< 1.1	< 0.94	1.5 B	< 0.94	NA	NA
	RW-4(108-128) (4/29/2008)		4/29/2008	< 0.26		<1	< 1.7	3.1	< 1.7	< 1.4	NA	NA
	RW4(108-128)		9/16/2008	3.3		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	RW-4(108-128) (6/30/2009)		6/30/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-4(108-128)		10/22/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-4 (328-347')		10/25/2004	< 0.31		<1	< *5.0*	12.6	< *5.0*	< 3.0	NA	NA
	RW-4 (328-348)		10/3/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	RW-4(328-349)(040907)		4/9/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	RW4 (328-349)		10/11/2007	< 0.19		<1	< 1.1	2.1 B	< 1.1	< 0.94	NA	NA
	RW-4(328-348) (4/29/2008)		4/29/2008	< 0.26		<1	< 1.7	2.5 B	< 1.7	1.8 B	NA	NA

Table 13A
Summary of Historical and Current Groundwater Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead: 2004-2016
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Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
RW-4	RW-4(328-348) (9/9/2008)	328-349'	9/9/2008	0.30 J		<1	< 1.7	1.8 B	2.7 B	< 1.4	NA	NA
	RW-4(328-349) (7/2/2009)		7/2/2009	< 0.23		<1	< 2.4	< 3.0	< 2.4	< 1.7	NA	NA
	RW-4(328-348)		10/23/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-4 (333-343)		6/7/2011	< 0.05		<1	< 0.92	1.3 B	< 0.92	1.4 B	NA	NA
	RW-4 (333-343)(042512)		4/25/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	RW-4(333-343)(111113)		11/11/2013	< 0.28		<1	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	RW-4(333-343) (090914)		9/9/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	RW-4(333-343) (082415)		8/24/2015	<0.2	<0.27	<1	0.9 J	<0.2	1.1 J	<0.2	NA	NA
	RW-4(333-343) (082416)		8/24/2016	< 0.09	< 0.0765	< 0.37	1.1 J	< 0.38	0.83 J	< 0.38	NA	NA
	RW-4 (388-407')	388-409'	10/25/2004	< 0.31		<1	< *5.0*	12.5	< *5.0*	3.0	NA	NA
	RW-4 (388-408)		10/3/2006	< 0.21		<1	< 1.5	3.7	< 1.5	< 2.6	NA	NA
	RW-4(388-409)(040907)		4/9/2007	< 0.21		<1	< 1.5	3.0 B	< 1.5	< 2.8	NA	NA
	RW4 (388-409)		10/11/2007	< 0.19		<1	< 1.1	2.4 B	< 1.1	< 0.94	NA	NA
	RW-4(388-408) (4/29/2008)		4/29/2008	< 0.26		<1	< 1.7	3.3	< 1.7	< 1.4	NA	NA
	RW-4(388-408) (9/10/2008)		9/10/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	RW-4(388-408) (7/2/2009)		7/2/2009	< 0.23		<1	< 2.4	< 3.0	< 2.4	< 1.7	NA	NA
	RW-4(388-408)		10/23/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-4(393-403) (6/8/2010)		6/8/2010	< 0.23		<1	< 1.4	3.2	< 1.4	< 1.9	NA	NA
	RW-4(393-403) (6/8/2010) DUP		6/8/2010	< 0.23		<1	< 1.4	2.7 B	< 1.4	< 1.9	NA	NA
	RW-4(393-403)		6/25/2010	< 0.23		<1	1.8 B	< 1.9	5.4	< 1.9	NA	NA
	RW-4(393-403) DUP		6/25/2010	< 0.23		<1	2.0 B	2.0 B	2.2 B	< 1.9	NA	NA
	RW-4(393-403)(052511)		5/25/2011	< 0.22		<1	< 3.0	< 3.0	< 0.92	< 3.0	NA	NA
	RW-4 (393-403)(042612)		4/26/2012	< 0.22		<1	< 3.0	< 1.7	< 0.97	< 1.7	NA	NA
	RW-4(393-403)(111113)		11/11/2013	< 0.28		<1	3.6	44.6	< 1.5	< 2.4	NA	NA
	RW-4(393-403) (091014)		9/10/2014	< 0.21		<1	9.6	13.8	< 2.6	2.6 B	NA	NA
	RW-4(393-403) (081015)		8/10/2015	< 0.2	<0.27	<1	0.59 J	1.8 J	< 0.5	< 0.2	NA	NA
	RW-4(393-403) (082416)		8/24/2016	< 0.09	< 0.0798	< 0.37	< 0.64	0.38 J	< 0.64	< 0.38	NA	NA
RW-4A	RW-4A(62-72) (6/7/2010)	62-72'	6/7/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	RW-4A(62-72)		6/25/2010	< 0.23		<1	1.5 B	< 1.9	< 1.4	< 1.9	NA	NA
	RW-4A(62-72)(052511)		5/25/2011	< 0.22		<1	< 0.92	< 3.0	< 0.92	< 3.0	NA	NA
	RW-4A (62-72)(042512)		4/25/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	RW-4A (62-72)(110813)		11/8/2013	< 0.28		<1	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	RW-4A(62-72)(091014)		9/10/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	RW-4A(62-72)(081015)		8/10/2015	<0.2	<0.27	<1	<0.5	0.44 J	<0.5	<0.2	NA	NA
	RW-4A(62-72)(082516)		8/25/2016	< 0.09	< 0.0781	< 0.37	< 0.64	0.83 J	< 0.64	< 0.38	NA	NA
	RW-4A(113-123) (6/8/2010)	113-123'	6/8/2010	< 0.23		<1	3.0	< 1.9	3.0	< 1.9	NA	NA
	RW-4A(113-123)		6/25/2010	< 0.23		<1	2.6 B	< 1.9	2.0 B	< 1.9	NA	NA
	RW-4A(113-123)(052511)		5/25/2011	< 0.22		<1	< 0.92	< 0.94	< 0.92	< 3.0	NA	NA
	RW-4A (113-123)(042512)		4/25/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	RW-4A (113-123)(110813)		11/8/2013	< 0.28		<1	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	RW-4A(113-123)(091014)		9/10/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	RW-4A(113-123)(082415)		8/24/2015	<0.2	<0.27	<1	<0.5	<0.2	<0.5	<0.2	NA	NA
	RW-4A(113-123)(082416)		8/24/2016	< 0.09	< 0.0735	< 0.37	< 0.64	< 0.38	< 0.64	< 0.38	NA	NA
RW-5	RW-05(40-51)	40-51'	9/27/2006	1.0		6.5	1.7 B	68.4	< 1.5	< 2.6	NA	NA
	RW-5(40-51)(041307)		4/13/2007	1.9		14.9	< 1.5	44.3	< 0.94	< 2.8	NA	NA
	19BR-(65-75)	64-76'	5/16/2006	3.4		13.9	17.7	39.8	NA	NA	NA	NA
	RW-5(64-75)		9/29/2006	< 0.21		<1	< 1.5	24.7	< 1.5	< *7.8*	NA	NA
	RW-5(65-76)(041207)		4/12/2007	1.5		15.4	< 1.5	13.9	NA	*NA*	NA	NA
RW-5	19BR-(100-120)	99-120'	5/17/2006	3.0		17.7	< *3.1*	3.3	< *3.1*	< 2.6	NA	NA
	RW-5 (100-120)		10/5/2006	1.8		18.7	4.7	32.7	< 1.5	< 2.6	NA	NA
	RW-5(97-118)		4/12/2007	2.6		22.2	< 1.5	7.0	< 1.5	4.6	NA	NA
	RW-5(071015)		10/15/2007	1.8		24	< 1.1	1.5 B	< 1.1	1.0 B	NA	NA
	RW-5(080502)		5/2/2008	0.89 J		17.8	4.1	< 1.4	< 1.7	< 1.4	NA	NA
	RW-5 (080917)		9/17/2008	0.41 J		17.6	2.4 B	< 1.4	1.8 B	< 1.4	NA	NA
	RW-5 (080917) DUP		9/17/2008	0.42 J		18.2	2.3 B	< 1.4	< 1.7	< 1.4	NA	NA
	RW-5(070709)		7/7/2009	0.26 J		18.6	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-5(102709)		10/27/2009	< 0.23		7.4	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-5(060210)		6/2/2010	NA		NA	2.1 B	< 1.9	< 1.4	< 1.9	NA	NA
	RW-5(060410)		6/4/2010	0.24 J		9.1	NA	NA	NA	NA	NA	NA
	RW-5 (052011)		5/20/2011	< 0.26		7.2	1.1 B	< 0.94	< 0.92	1.3 B	NA	NA

Table 13A
Summary of Historical and Current Groundwater Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead: 2004-2016
Ringwood Mines/Landfill Superfund Site

Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
	RW-5 (042612)		4/26/2012	< 0.22		5.1 J	< 3.0	1.9 J	< 3.0	< 1.7	NA	NA
	RW-5 (111413)		11/14/2013	< 0.28 J		1.9 J	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	RW-5 (090414)		9/4/2014	< 0.21		1.7	9.4	4.7	7.9	1.4 B	NA	NA
	RW-5 (080515)		8/5/2015	<0.2	6.75	1.4	8.9 B	6.6	7.2 B	2.4	NA	NA
	RW-5 (121515)		12/15/2015	0.13J	3.28	1.9	NA	NA	NA	NA	NA	NA
	RW-5 (052516)[2]		5/25/2016	<1/<0.09	3.6/10.7	<1/1.4	NA	NA	NA	NA	NA	NA
	RW-5 (081816)		8/18/2016	< 0.09	10.8	2.6	8	1.5	7.9	< 0.44	NA	NA
	RW-5A(071015)		10/15/2007	< 0.19		0.79 J	< 1.1	1.9 B	< 1.1	< 0.94	NA	NA
	RW-SA(080429)		4/29/2008	< 0.26		<1	8.6	2.9 B	11.8	2.5 B	NA	NA
	RW-5A(080912)		9/12/2008	< 0.26		<1	10	2.2 BJ	9.7	< 1.4	NA	NA
	RW-5A(070709)		7/7/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-5A(102809)		10/28/2009	< 0.23		<1	3.5	< 1.7	< 2.4	< 1.7	NA	NA
	RW-5A(060110)		6/1/2010	< 0.23		<1	2.6 B	< 1.9	2.7 B	< 1.9	NA	NA
	RW-5A(060110) DUP		6/1/2010	< 0.23		<1	3.6	< 1.9	2.1 B	< 1.9	NA	NA
RW-5A	RW-5A(051811)	54-74'	5/18/2011	< 0.22		<1	2.2 B	1.6 J	1.1 B	< 0.94	NA	NA
	RW-5A (042512)		4/25/2012	< 0.22		<1	4.9 J	< 1.7	5.9 J	< 1.7	NA	NA
	RW-5A (110813)		11/8/2013	< 0.28		<1	6.3	< 2.4	6.7	< 2.4	NA	NA
	RW-5A (091014)		9/10/2014	< 0.21		<1	7.6	2.2 B	4.7	1.8 B	10.5	1 J
	RW-5A (082415)		8/24/2015	1.2	<0.27	<1	3.3	< 0.2	1.1 J	<0.2	NA	NA
	RW-5A (121515)		12/15/2015	0.095J	<0.053	<1	NA	NA	NA	NA	NA	NA
	RW-5A (052516)[2]		5/25/2016	<1/<0.09	<0.42/0.123J	<1/<0.13	NA	NA	NA	NA	NA	NA
	RW-5A (8/18/16)		8/18/2016	< 0.09	< 0.0833	< 0.37	0.97 J	< 0.44	1.3 J	< 0.44	NA	NA
	20BR-(53-64)		5/11/2006	2.9		6.5	< *8.0*	3.2	< *8.0*	< 3.0	NA	NA
	RW-06(53-64) (9/27/2006)	53-64'	9/27/2006	3.0		6	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
RW-6	RW-06(53-64) (040207)		4/2/2007	2.6		6.9	1.7 B	4.5	< 1.5	2.9 B	NA	NA
	20BR-(70-81)		5/11/2006	2.6		5.4	< *8.0*	< 3.0	< *8.0*	< 3.0	NA	NA
	RW-06(70-81)	70-81'	9/27/2006	2.6		5.1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	RW-06(70-81)(040307)		4/3/2007	1.9		4.5	< 1.5	32.3 J	< 1.5	< 2.8	NA	NA
	RW-6 (100-120)		10/10/2006	4.0		15	< 1.5	6.9 J	< 1.5	3.1 J	NA	NA
	RW-6(98-119)(040507)		4/6/2007	2.7		11.2	< 1.5	4.6	< 1.5	< 2.8	NA	NA
	RW-6 (071011)		10/11/2007	2.6		8.5	2.5 B	< 0.94	1.2 B	1.3 B	NA	NA
	RW-6(080502)		5/2/2008	1.7		7.9	3.8	1.5 B	2.5 B	< 1.4	NA	NA
	RW-6(080915)		9/15/2008	2.1		7.7	2.4 B	< 1.4	2.1 B	< 1.4	NA	NA
	RW-6(070909)		7/9/2009	2.0		6.4	4.1 J	< 1.7	< 2.4	< 1.7	NA	NA
	RW-6(102809)		10/28/2009	1.5		4.3	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-6(060210)		6/2/2010	NA		NA	2.1 B	< 1.9	< 1.4	< 1.9	NA	NA
	RW-6(060410)		6/4/2010	1.5		4.2	NA	NA	NA	NA	NA	NA
	RW-6(051811)		5/18/2011	1.6		4.5	< 0.92	1.8 J	< 0.92	2.2 B	NA	NA
RW-6	RW-6 (042712)	98-120'	4/27/2012	0.74 J		2.5 J	< 3.0	2.3 J	< 0.97	2.6 J	NA	NA
	RW-6 (111813)		11/18/2013	2.3		5.9	3.6	4.9	3.2	3.6	NA	NA
	RW-6 (090514)		9/5/2014	2.1		3.5	2.6 B	1.3 B	< 2.6	< 1.3	NA	NA
	RW-6(100914)		10/9/2014	15.7		1.3	3.6	< 1.3	3.3	< 1.3	NA	NA
	RW-6(031915)		3/19/2015	344		<1	NA	NA	NA	NA	NA	NA
	RW-6(042215)		4/22/2015	2.2		1.7	NA	NA	NA	NA	NA	NA
	RW-6(060215)		6/2/2015	1.7		1.4	NA	NA	NA	NA	NA	NA
	RW-6(080515)		8/5/2015	1.2	1.5J	3.3	<1.5 B	0.25 J	<1.1 B	<0.2	NA	NA
	RW-6(121415)		12/14/2015	1.5	1.09	5.3	NA	NA	NA	NA	NA	NA
	RW-6(052616)[2]		5/26/2016	2.1/2.0	.37 J/2.89	2.8/3.0	NA	NA	NA	NA	NA	NA
	RW-6(081816)		8/18/2016	1.9	3.7	10	1.2 J	< 0.44	< 0.71	< 0.44	NA	NA
	RW-6A(071016)		10/16/2007	5.5		2.4	< 1.1	< 0.94	< 1.1	< 0.94	NA	NA
	RW-6A(080502)		5/2/2008	1.7		1.9	2.9 B	2.8 B	< 1.7	1.8 B	NA	NA
	RW-6A(080915)		9/15/2008	2.9		2.3	1.9 B	< 1.4	1.7 B	< 1.4	NA	NA
	RW-6A(070909)		7/9/2009	1.3		1.3	< 3.0	< 1.7	< 2.4	< 1.7	NA	NA
	RW-6A (102809)		10/28/2009	2.4		1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-6A(060210)		6/2/2010	1.9		1.4	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	RW-6A(051811)		5/18/2011	1.5		0.95 J	< 0.92	3.1	< 0.92	2.4 B	NA	NA
	RW-6A (042712)		4/27/2012	2.0		1.7 J	< 0.97	1.8 J	< 0.97	< 1.7	NA	NA
	RW-6A (110813)		11/8/2013	15.0		1.6	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
RW-6A	RW-6A (090514)	58-78'	9/5/2014	88.1		1.1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	RW-6A (100914)		10/9/2014	6.8		1.5	< 5.1	< 1.3	< 5.1	< 1.3	NA	NA

Table 13A
Summary of Historical and Current Groundwater Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead: 2004-2016
Ringwood Mines/Landfill Superfund Site

Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
	RW-6A (031915)		3/19/2015	13.3		2.9	NA	NA	NA	NA	NA	NA
	RW-6A (042115)		4/21/2015	8.7		2.3	NA	NA	NA	NA	NA	NA
	RW-6A (042115)		4/21/2015	9.1		1.8	NA	NA	NA	NA	NA	NA
	RW-6A (080415)		8/4/2015	7.7	2.7J	2	<1.4 B	<0.2	<1.1 B	<0.2	NA	NA
	RW-6A(121415)		12/14/2015	5.9	1.28	4.6	NA	NA	NA	NA	NA	NA
	RW-6A(052616)[2]		5/26/2016	5.7/6.9	2.4/4.81	3.0/2.4	NA	NA	NA	NA	NA	NA
	RW-6A(081816)		8/18/2016	8	3.1	5.7	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
	21BR-(34-45)		5/9/2006	< 0.21		<1	< *8.0*	< 3.0 J	< *8.0*	< 3.0 J	NA	NA
	RW-07(34-45)	34-45'	9/26/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	RW-07(34-45)(040307)		4/3/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	21BR-(49-60)		5/9/2006	< 0.21		<1	< *8.0*	< 3.0 J	< *8.0*	< 3.0 J	NA	NA
	RW-07(49-60)		9/26/2006	< 0.21		<1	< 1.5 J	< 2.6	1.8 BJ	< 2.6	NA	NA
	RW-7(49-60) (040407)		4/4/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	RW-7(071015)		10/15/2007	< 0.19		<1	< 1.1	< 0.94	< 1.1	< 0.94	NA	NA
	RW-7 (080505)		5/5/2008	< 0.26		<1	< 1.7	1.5 B	< 1.7	< 1.4	NA	NA
	RW-7(080912)		9/12/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
RW-7	RW-7(070709)		7/7/2009	< 0.23		<1	< 2.4	5.1	< 2.4	< 1.7	NA	NA
	RW-7(102709)		10/27/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-7(102709) DUP	40-62'	10/27/2009	0.41 J		1.4	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-7(060110)		6/1/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	RW-7(051811)		5/18/2011	< 0.22		<1	< 0.92	5.9	< 0.92	1.1 J	NA	NA
	RW-7(042412)		4/24/2012	< 0.22		<1	1.1 B	< 1.7	< 0.97	< 1.7	NA	NA
	RW-7 (110713)		11/7/2013	< 0.28		<1	< 1.5	< 2.4	< 1.5	< 4.1 B	NA	NA
	RW-7 (090415)		9/4/2014	< 0.21		<1	3.6	2.9 B	3.2	< 1.3	NA	NA
	RW-7 (042015)		4/20/2015	<0.24		<1	NA	NA	NA	NA	NA	NA
	RW-7 (080615)		8/6/2015	<0.2	<0.27	<1	<0.74 B	0.48 J	<0.72 B	<0.2	NA	NA
	RW-7 (081816)		8/18/2016	< 0.09	< 0.0781	< 0.37	< 0.71	0.59 J	< 0.71	< 0.44	NA	NA
	21BR(80-100)		5/10/2006	< 0.21		<1	< *8.0*	< 3.0	< *8.0*	< 3.0	NA	NA
	RW-07(80-100)	80-101'	9/28/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
RW-7	RW-07(80-101)(040307)		4/3/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	21BR(105-120)		5/10/2006	< 0.21		<1	< *8.0*	< 3.0	< *8.0*	3.8	NA	NA
	RW-07(105-120)	103-120'	9/28/2006	< 0.21		<1	< 1.5	< 2.6	< 1.5	< 2.6	NA	NA
	RW-7(103-119) (040407)		4/4/2007	< 0.21		<1	< 1.5	< 2.8	< 1.5	< 2.8	NA	NA
	RW8(42-62)		7/31/2008	0.62 J		<1	< 1.7	4.0	< 1.7	1.9 B	NA	NA
	RW-8(42-62)	42-62'	11/4/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-8(42-62) (7/7/2009)		7/7/2009	< 0.23		<1	< 2.4	17.9	< 2.4	5.0	NA	NA
	RW8(158-178)		7/21/2008	< 0.26		<1	4.3	< 1.4	3.2	< 1.4	NA	NA
	RW-8(158-178) (7/7/2009)	158-178'	7/7/2009	< 0.23		<1	< 2.4	6.0	< 2.4	< 1.7	NA	NA
	RW-8(158-178)		11/4/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-8(163-173) (6/23/2010)		6/23/2010	< 0.23		<1	NA	NA	NA	NA	NA	NA
	RW-8(163-173) (6/24/2010)		6/24/2010	NA		NA	NA	NA	NA	NA	NA	NA
	RW-8(163-173) (6/25/2010)		6/25/2010	NA		NA	2.1 B	< 1.9	NA	NA	NA	NA
	RW-8(163-173)(053111)		5/31/2011	< 0.22		<1	2.1 B	< 0.94	1.1 B	< 0.94	NA	NA
	RW-8(163-173)(060111)	163-173'	6/1/2011	NA		NA	NA	NA	NA	NA	NA	NA
	RW-8(163-173)		5/3/2012	< 0.22		<1	2.0 J	< 1.7	1.7 J	< 1.7	NA	NA
	RW-8 (163-173)(111513)		11/15/2013	0.34 J		<1 J	2.4 B	< 3.0 B	2.0 B	< 2.4	NA	NA
RW-8	RW-8(163-173)(092214)		9/22/2014	< 0.21		<1	4.2	< 1.3	5.2	< 1.3	NA	NA
	RW-8(163-173) (081815)		8/18/2015	0.27 J	<0.27	<1	3.6 B	<0.2	2.1	<0.2	NA	NA
	RW-8(163-173) (082516)		8/25/2016	0.35 J	< 0.0781	< 0.37	1.5 J	< 0.38	1.6 J	< 0.38	NA	NA
	RW8(199-219)		7/22/2008	0.38 J		<1	2.5 B	< 1.4	3.6	< 1.4	NA	NA
	RW-8(199-219) (7/7/2009)	199-219'	7/7/2009	< 0.23		<1	< 2.4	< 3.0	< 2.4	< 1.7	NA	NA
	RW-8(199-219)		11/4/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-8(204-214) (6/23/2010)		6/23/2010	< 0.23		<1	NA	NA	NA	NA	NA	NA
	RW-8(204-214) (6/25/2010)		6/25/2010	NA		NA	5.9	< 1.9	NA	NA	NA	NA
	RW-8(204-214)(060111)		6/1/2011	< 0.22		<1	5.1	< 0.94	NA	NA	NA	NA
	RW-8 (204-214)(111413)	204-214'	11/14/2013	2.2 J		<1 J	1.5 B	< 2.4	NA	NA	NA	NA
	RW-8 (204-214)(111513)		11/15/2013	NA		NA	NA	NA	< 1.5	< 2.4	NA	NA
	RW-8(204-214)(092314)		9/23/2014	0.58		<1	3.6	2.3 B	4.2	< 1.3	NA	NA
	RW-8(204-214)(082015)		8/20/2015	0.57 J	<0.27	<1	2	0.97 J	1.9 J	<0.2	NA	NA
	RW-8(204-214)(082516)		8/25/2016	3.8	0.121 J	< 0.37	1.8 J	< 0.38	1.7 J	< 0.38	NA	NA

Table 13A
Summary of Historical and Current Groundwater Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead: 2004-2016
Ringwood Mines/Landfill Superfund Site

Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
RW-9	RW9(20-40)	20-40'	7/30/2008	7.0		<1	< 1.7	5.2	< 1.7	2.1 B	NA	NA
	RW-9(20-40) (7/15/2009)		7/15/2009	< 0.23		<1	< 2.4	< 3.0	< 2.4	< 1.7	NA	NA
	RW-9(20-40)		11/2/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW9 (80-100)	80-100'	7/23/2008	0.93 J		<1	1.7 BJ	< 1.4	< 1.7	< 1.4	NA	NA
	DUP 1 (RW9 (80-100))		7/23/2008	1.1		<1	2.1 BJ	< 1.4	2.0 B	< 1.4	NA	NA
	RW-9(80-100) (7/15/2009)		7/15/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-9(80-100)		11/2/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW9 (134-154)	134-154'	7/23/2008	0.70 J		<1	< 1.7 J	< 1.4	2.1 BJ	< 1.4	NA	NA
	RW-9(134-154) (7/16/2009)		7/16/2009	< 0.23		<1	< 2.4	6.4 J	< 2.4	< 1.7	NA	NA
	RW-9(134-154) DUP		7/16/2009	< 0.23		<1	< 2.4	6.4	< 2.4	< 1.7	NA	NA
	RW-9(134-154)		11/2/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-9 (139-149)(112013)		11/20/2013	< 0.28 J		<1 J	NA	NA	NA	NA	NA	NA
	RW-9 (201-221)	201-221'	7/24/2008	1.5		<1	< 1.7	< 1.4	2.4 B	< 1.4	NA	NA
	RW-9(201-221) (7/16/2009)		7/16/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-9(201-221)		11/3/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
RW-9	RW-9(206-216) (6/23/2010)	206-216'	6/23/2010	< 0.23		<1	NA	NA	NA	NA	NA	NA
	RW-9(206-216) (6/25/2010)		6/25/2010	NA		NA	NA	NA	NA	NA	NA	NA
	RW-9(206-216)		6/28/2010	NA		NA	4.6 J	< 1.9	NA	NA	NA	NA
	RW-9(206-216)(052611)		5/26/2011	< 0.22		<1	NA	NA	NA	NA	NA	NA
	RW-9(206-216)(052711)		5/27/2011	NA		NA	3.3	< 0.94	NA	NA	NA	NA
	RW-9 (206-216)(042012)		4/20/2012	< 0.22		<1	< 3.0	< 1.7	< 0.97	< 1.7	NA	NA
	RW-9 (206-216)(112013)		11/20/2013	< 0.28 J		<1 J	2.2 B	3.0	< 1.5	< 2.4	NA	NA
	RW-9(206-216)(092514)		9/25/2014	< 0.21		<1	7.3	< 1.3	8.9	< 1.3	NA	NA
	RW-9(206-216)(082115)		8/21/2015	<0.2	<0.27	<1	3	<0.2	NA	NA	NA	NA
	RW-9(206-216)(083016)		8/30/2016	0.15 J	< 0.0915	< 0.37	2.8	< 0.38	NA	NA	NA	NA
RW-9A	RW-9A(85-95)	85-95'	6/23/2010	0.33 J		<1	NA	NA	NA	NA	NA	NA
	RW-9A(85-95)(060111)		6/1/2011	< 0.22		<1	NA	NA	NA	NA	NA	NA
	RW-9A (85-95)(042012)		4/20/2012	0.23 J		<1	2.8 J	< 1.7	2.5 J	< 1.7	NA	NA
	RW-9A (85-95)(112013)		11/20/2013	< 0.28 J		<1 J	3.4	< 2.4	NA	NA	NA	NA
	RW-9A(85-95)(092314)		9/23/2014	< 0.21		<1	5.3	< 1.3	3.7	< 1.3	NA	NA
	RW-9A(85-95)(082115)		8/21/2015	<0.2	<0.27	<1	3.2	<0.2	3.4	<0.2	NA	NA
	RW-9A(85-95)(083016)		8/30/2016	< 0.09	< 0.0815	< 0.37	3	< 0.38	2.9	< 0.38	NA	NA
RW-10	RW-10(22-42) (7/8/2009)	22-42'	7/8/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-10(22-42)		10/29/2009	< 0.23		<1	< 2.4	2.2 B	< 2.4	< 1.7	NA	NA
	RW-10 (46-66)	46-66'	7/25/2008	< 0.26		<1	2.2 B	2.8 B	2.2 B	1.6 B	NA	NA
	RW-10(46-66) (7/9/2009)		7/9/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-10(46-66)		10/29/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW10(70-90)	70-90'	7/28/2008	0.26 J		<1	2.4 B	7.3	< 1.7	1.6 B	NA	NA
	RW-10(70-90) (7/9/2009)		7/9/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-10(70-90)		10/29/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW10 (115-135)	115-135'	7/28/2008	< 0.26		<1	2.0 B	6.0	< 1.7	1.4 B	NA	NA
	RW-10(115-135) (7/9/2009)		7/9/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-10(115-135)		10/29/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-10(120-130) (6/23/2010)		6/23/2010	< 0.23		NA	NA	NA	NA	NA	NA	NA
	RW-10(120-130) (6/24/2010)		6/24/2010	NA		NA	NA	NA	NA	NA	NA	NA
	RW-10(120-130) (6/25/2010)		6/25/2010	NA		<1	4.3	< 1.9	NA	NA	NA	NA
	RW-10(120-130)(053111)		5/31/2011	< 0.22		NA	4.8	2.5 B	NA	NA	NA	NA
	RW-10(120-130)(060111)		6/1/2011	NA		<1	NA	NA	4.1	2.3 B	NA	NA
	RW-10 (120-130)(041912)		4/19/2012	< 0.22		<1 J	3.7 J	< 1.7	3.6 J	< 1.7	NA	NA
	RW-10 (120-130)(111513)		11/15/2013	< 0.28 J		<1	9.5	5.0 J	8.0	5.1 J	NA	NA
	RW-10(120-130)(091714)		9/17/2014	< 0.21		<1	8.2	6.3	9.1	< 3.0 B	8.6	8.5
	RW-10(120-130)(081915)		8/19/2015	<0.2	<0.27	<1	7.5 B	<0.2	6.7	<0.2	NA	NA
	RW-10(120-130)(082916)		8/29/2016	< 0.09	0.0883 J	< 0.37	6.6	< 0.38	7.2	< 0.38	NA	NA
	RW-10 (180-200)		7/29/2008	0.57 J		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	RW-10(180-200) (7/9/2009)		7/9/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	RW-10(180-200)		10/30/2009	< 0.23		<1	< 2.4	6.0	NA	NA	NA	NA
	RW-10(180-200) DUP		10/30/2009	< 0.23		<1	< 2.4	7.0	< 2.4	< 1.7	NA	NA
	RW-10(180-200)MS		10/30/2009	NA		NA	NA	NA	< 2.4	< 1.7	NA	NA
	RW-10(185-195) (6/9/2010)		6/9/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	RW-10(185-195) (6/23/2010)		6/23/2010	< 0.23		<1	NA	NA	NA	NA	NA	NA

Table 13A
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Ringwood Mines/Landfill Superfund Site

Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
RW-10A	RW-10(185-195) (6/25/2010)	180-200'	6/25/2010	NA		NA	2.2 B	< 1.9	NA	NA	NA	NA
	RW-10(185-195) (6/28/2010)		6/28/2010	NA		NA	NA	NA	< 1.4	< 1.9	NA	NA
	RW-10(185-195)(053111)		5/31/2011	< 0.22		<1	< 0.92	1.0 B	< 0.92	1.4 B	NA	NA
	RW-10(185-195)(041812)		4/18/2012	< 0.22		<1	3.6 J	< 1.7	3.6 J	< 1.7	NA	NA
	RW-10 (185-195)(111313)		11/13/2013	< 0.28		<1	7.9	< 4.2 B	6.6	< 3.2 B	NA	NA
	RW-10(185-195)(091714)		9/17/2014	< 0.21		<1	7.9	3.5	9.7	2.5 B	NA	NA
	RW-10(185-195)(081815)		8/18/2015	<0.2	<0.27	<1	6.7 B	<0.2	5.2	<0.2	NA	NA
	RW-10(185-195)(082616)		8/26/2016	< 0.09	< 0.0815	< 0.37	4.6	< 0.38	5.1	< 0.38	NA	NA
	RW-10A(51-61)(060211)	51-61'	6/2/2011	< 0.22		<1	< 0.92	< 3.0	< 0.92	< 0.94	NA	NA
	RW-10A(51-61)(041812)		4/18/2012	< 0.22		<1	< 3	< 1.7	< 3	< 1.7	NA	NA
	RW-10A (51-61)(111513)		11/15/2013	< 0.28 J		<1 J	2.1 B	< 3.1 B	NA	NA	NA	NA
	RW-10A(51-61)(091814)		9/18/2014	< 0.21		<1	< 2.6	< 3.0 B	< 2.6	< 3.0 B	NA	NA
	RW-10A(51-61)(082015)		8/20/2015	<0.2	<0.27	<1	2.1	< 0.2	1.5 J	<0.2	NA	NA
	RW-10A(51-61)(082916)		8/29/2016	< 0.09	< 0.0798	< 0.37	0.86 J	< 0.38	0.79 J	< 0.38	NA	NA
	RW-10A(75-85) (6/9/2010)	75-85'	6/9/2010	< 0.23		<1	< 1.4	< 1.9	<0.0002	< 1.9	NA	NA
	RW-10A(75-85) (6/23/2010)		6/23/2010	< 0.23		<1	NA	NA	NA	NA	NA	NA
	RW-10A(75-85)		6/28/2010	NA		NA	< 1.4	4.0 J	< 1.4	< 1.9	NA	NA
	RW-10A(75-85)(060211)		6/2/2011	< 0.22		<1	< 0.92	< 3.0	< 0.92	< 0.94	NA	NA
	RW-10A(75-85)(041812)		4/18/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	RW-10A(75-85)(041812) DUP		4/18/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	RW-10A(75-85)(050712)		5/7/2012	NA		NA	NA	NA	NA	NA	NA	NA
	RW-10A (75-85)(111413)		11/14/2013	< 0.28 J		<1 J	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	RW-10A(75-85)(091814)		9/18/2014	< 0.21		<1	< 2.6	3.0	< 2.6	< 3.0 B	NA	NA
	RW-10A(75-85)(081815)		8/18/2015	<0.2	<0.27	<1	2 B	0.82 J	<0.5	0.26 J	NA	NA
	RW-10A(75-85)(082616)		8/26/2016	< 0.09	< 0.075	< 0.37	< 0.64	< 0.38	< 0.64	< 0.38	NA	NA
RW-11	RW-11(100-125) (6/7/2010)	100-125'	6/7/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	RW-11(100-125)		5/26/2011	< 0.22		<1	< 0.92	< 3.0	< 0.92	< 3.0	NA	NA
	RW-11(142-167) (6/7/2010)	142-167'	6/7/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	RW-11(142-167)		5/26/2011	< 0.22		<1	< 0.92	< 0.94	< 0.92	< 0.94	NA	NA
	RW-11(221-246) (6/8/2010)	221-246'	6/8/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	RW-11(221-246)		5/25/2011	< 0.22		<1	< 0.92	< 3.0	< 0.92	< 0.94	NA	NA
	RW-11(252-272) (6/8/2010)	252-272'	6/8/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	RW-11(252-272)		5/25/2011	< 0.22		<1	< 0.92	< 3.0	< 0.92	1.7 J	NA	NA
RW-11D	RW-11D (262-267) (050112)	262-267'	5/1/2012	< 0.22		<1	NA	NA	NA	NA	NA	NA
	RW-11D (262-267)(111413)		11/14/2013	0.56 J		<1 J	< 1.5	3.3	< 1.5	< 2.4	NA	NA
	RW-11D(262-267)(091514)		9/15/2014	2.0		<1	< 3.0 B	< 1.3	< 2.6	< 1.3	NA	NA
	RW-11D(262-267)(082615)		8/26/2015	1.6	26J	<1	2.4	0.69 J	< 2.5	< 1	NA	NA
	RW-11D(262-267)(121715)		12/17/2015	2.4	17.9	<1	NA	NA	NA	NA	NA	NA
	RW-11D(262-267)(052716)[2]		5/27/2016	3.0/3.5	16/54.6	1.6/2.0	NA	NA	NA	NA	NA	NA
	RW-11D(262-267)(8/23/16)		8/23/2016	6.4	73.4/54.4**	8.6	0.88 J	< 0.38	0.92 J	< 0.38	NA	NA
RW-11S	RW-11S (236-241) (050112)	236-241'	5/1/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	RW-11S (236-241)(111313)		11/13/2013	< 0.28		<1	< 1.5	< 2.4	< 1.5	< 2.4	NA	NA
	RW-11S (236-241)(091214)		9/12/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	DUP(091214)		9/12/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	RW-11S (236-241)(081715)		8/17/2015	<0.2	1.1J	<1	1 J	<0.2	<0.5	<0.2	NA	NA
	RW-11S (236-241)(121715)		12/17/2015	<0.09	1.88	<1	NA	NA	NA	NA	NA	NA
	RW-11S (236-241)(052716)[2]		5/27/2016	<1/<0.09	0.60/1.05	<1/<0.13	NA	NA	NA	NA	NA	NA
	RW-11S (236-241)(082316)		8/23/2016	< 0.09	1.08	< 0.37	< 0.64	< 0.38	< 0.64	< 0.38	NA	NA
RW-12	RW-12(50-70)	50-70'	5/10/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	RW-12(55-65)(091914)		9/19/2014	< 0.21		<1	< 2.6	< 3.0 B	2.6 B	< 3.0 B	NA	NA
	RW-12(55-65)(081715)		8/17/2015	<0.2		<1	13	<0.2	12	<0.2	NA	NA
	RW-12(55-65)(082216)		8/22/2016	< 0.09	< 0.0815	< 0.37	12	< 0.44	13.9	< 0.44	NA	NA
	RW-12(96-116)	96-116'	5/10/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	RW-12(125-148)	125-148'	5/11/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	RW-12(130-140)(091914)		9/19/2014	< 0.21		<1	< 2.6	< 3.0 B	< 2.6	< 3.0 B	NA	NA
	RW-12(130-140)(081215)		8/12/2015	<0.2	<0.27	<1	13 B	<0.2	<0.5	<0.2	NA	NA
	RW-12(130-140)(082516)		8/25/2016	< 0.09	< 0.0781	< 0.37	13.5	0.41 J	15	< 0.38	NA	NA
	RW-13(71-91) (090914)	71-91'	9/9/2014	< 0.21		<1	6.3	3.7	4.9	3.7	NA	NA
	RW-13(71-91) (082415)		8/24/2015	<0.2		<1	2.9	2.3	2	<0.2	NA	NA
	RW-13(71-91) (082516)		8/25/2016	< 0.09	0.201	< 0.37	< 0.64	< 0.38	< 0.64	< 0.38	NA	NA

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Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3
RW-13	RW-13(100-120)(091614)	100-120'	9/16/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	RW-13(100-120)(081315)		8/13/2015	<0.2		<1	3.2	<0.2	2.1	<0.2	NA	NA
	RW-13(100-120)(081315)		8/13/2015	< 0.09	0.0972 J	< 0.37	3.1	0.78 J	NA	NA	NA	NA
	RW-13(150-170)(091614)	150-170'	9/16/2014	< 0.21		<1	< 2.6	1.7 B	2.9 B	< 1.3	NA	NA
	RW-13(150-170)(082115)		8/21/2015	<0.2	<0.27	<1	4.6 B	0.33 J	2	0.31 J	NA	NA
	RW-13(150-170)(082616)		8/26/2016	< 0.09	< 0.0765	< 0.37	1.6 J	0.54 J	1.4 J	< 0.38	NA	NA
RW-14S	RW-14S (053116)[2]	135-135'	5/31/2016	0.22 J/0.17 J	0.19 J/0.645	1.9/<0.13	NA	NA	NA	NA	NA	NA
	RW-14S (135-155)		8/29/2016	< 0.09	0.251	< 0.37	14	0.81 J	11.3	< 0.38	NA	NA
RW-14D	RW-14D (053116)[2]	175'-185'	5/31/2016	0.39J/0.26J	0.17J/0.891	3.3/1.6	NA	NA	NA	NA	NA	NA
	RW-14D (175-185)		8/29/2016	0.31 J	0.973	< 0.37	8.8	< 0.38	1.1 J	< 0.38	NA	NA
RW-15S	RW-15S (052716)[2]	110-120'	5/27/2016	<1/<0.09	0.15 J/0.543	<1/<0.13	NA	NA	NA	NA	NA	NA
	RW-15S (110-120)		8/24/2016	< 0.09	0.277 B	< 0.37	12.7	0.58 J	7.8	< 0.38	NA	NA
RW-15D	RW-15D (052716)[2]	127-137'	5/27/2016	<1/<0.09	0.47/0.843	<1/<0.13	NA	NA	NA	NA	NA	NA
	RW-15D (127-137)		8/24/2016	< 0.09	0.86	< 0.37	2.2	< 0.38	1.2 J	< 0.38	NA	NA
RW-16	RW-16 (052416)[2]	52-62'	5/24/2016	<1/<0.09	<0.42/<0.0735	<1/<0.13	NA	NA	NA	NA	NA	NA
	RW-16 (52-62)		8/16/2016	< 0.09	< 0.075	< 0.37	< 0.71	< 0.44	< 0.71	< 0.44	NA	NA
SC-01	SC-1	64.4-70.9'	10/5/2006	< 0.21		<1	< 1.5	< 2.6	1.7 B	< 2.6	NA	NA
	SC1(041107)		4/11/2007	1.4		1.6	< 1.5	6.3	< 1.5	< 2.8	NA	NA
	SC-1(071016)		10/16/2007	1.5		3.6	< 1.1	8.8	< 1.1	1.6 B	NA	NA
	DUP-01(080430) (SC-1)		4/30/2008	0.93 J		1	< 1.7	6.6	< 1.7	1.9 B	NA	NA
	SC-1(080430)		4/30/2008	1.1		0.9 J	< 1.7	5.4	< 1.7	< 1.4	NA	NA
	SC-1 (080917)		9/17/2008	0.81 J		<1	< 1.7	6.2	< 1.7	< 1.4	NA	NA
	SC-1(070909)		7/9/2009	0.94 J		0.64 J	< 2.4	7.2 J	< 2.4	< 3.0	NA	NA
	SC-1(102809)		10/28/2009	0.53 J		<1	< 2.4	9.9	< 2.4	< 1.7	NA	NA
	SC-1(060210)		6/2/2010	1.5		1.1	< 1.4	6.2	< 1.4	< 1.9	NA	NA
	SC-1(051811)		5/18/2011	0.63 J		0.39 J	< 0.92	5.6	< 0.92	1.5 J	NA	NA
	SC-1 (042712)		4/27/2012	1.2		1.2 J	< 0.97	9.4	< 0.97	< 1.7	NA	NA
	SC-1(111113)		11/11/2013	1.6		<1	< 1.5	8.6	< 1.5	< 2.4	NA	NA
	SC-1 (090514)		9/5/2014	56.0		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	SC-1 (100914)		10/9/2014	1.6		<1	< 2.6	2.5 B	< 2.6	< 1.3	NA	NA
	SC-1 (031915)		3/19/2015	150		<1	NA	NA	NA	NA	NA	NA
	SC-1 (042215)		4/22/2015	1.8		1.8	NA	NA	NA	NA	NA	NA
	SC-1(060215)		6/2/2015	1.6		1.1	NA	NA	NA	NA	NA	NA
	SC-1(080415)		8/4/2015	1.3	.39J	0.53 J	1.1 B	13	<0.84 B	2	NA	NA
	SC-1(121515)		12/15/2015	2.9	1.3	2.5	NA	NA	NA	NA	NA	NA
	SC-1(052616)[2]		5/26/2016	1.6/1.7	0.74/1.60	1.2/1.4	NA	NA	NA	NA	NA	NA
	SC-1(081916)		8/19/2016	1.8	0.905	2	< 0.71	7.9	< 0.71	< 0.44	NA	NA
SC-02	SC-2 (080505)	47-67'	5/5/2008	< 0.26		<1	< 1.7	2.8 B	< 1.7	< 1.4	NA	NA
	SC-2 (080917)		9/17/2008	< 0.26		<1	2.1 B	< 1.4	< 1.7	< 1.4	NA	NA
	SC-2(063009)		6/30/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	SC-2(102009)		10/20/2009	< 0.23		<1	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	SC-2(052510)		5/25/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	SC-2(051611)		5/16/2011	< 0.26		<1	1.4 B	20.0	< 0.92	< 0.94	NA	NA
	SC-2 (041912)		4/19/2012	< 0.22		<1	< 0.97	2.9 J	< 0.97	< 1.7	NA	NA
	SC-2 (111513)		11/15/2013	< 0.28 J		<1 J	< 1.5	< 4.0 B	< 1.5	< 2.4	NA	NA
	SC-2(091514)		9/15/2014	< 0.21		<1	< 3.0 B	< 1.3	3.1 J	< 1.3	NA	NA
	SC-2(081215)		8/12/2015	<0.2	<0.27	<1	2.1 B	0.58 J	4.6	<0.2	NA	NA
	SC-2(081716)		8/17/2016	< 0.09	< 0.0636	< 0.37	< 0.71	2	< 0.71	< 0.44	NA	NA

Notes:

Results for 1,4-dioxane, benzene, chloroethane, lead, and arsenic are presented in this table. See Summary tables for full results.

Results are presented in µg/L unless otherwise noted.

[1] NJGWQS, New Jersey Groundwater Quality Standard NJAC7:9C March 2014

[2] Results represent split samples between Test America (without isotope dilution) and Alpha Analytical (with isotope dilution), respectively.

1,4-dioxane analyzed by Method 8270 Sim with Isotope Dilution as of August 2016.

Shaded values exceed NJGWQS.

*First two results via 8270 SIM-ID, second result outside of hold time. Third result is via Method 522 from Pace Analytical as part of isotope study. See Text.

** First result by 8270 SIM-ID, second result via Method 522 from Pace Analytical as part of isotope study.

< = not detected

B (inorganic) = estimated result is between the detection limit and quantification limit

Table 13A
Summary of Historical and Current Groundwater Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead: 2004-2016
Ringwood Mines/Landfill Superfund Site

Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			NJGWQS	1	0.4	5	3	5	3	5	3	3

B (organic) = analyte found in associated method blank
ft bgs = feet below ground surface
J = estimated result
NA = not analyzed or not available
R = rejected result
µg/L = micrograms per liter

Table 13B
Summary of Historical and Current Mine Water Results for Benzene, 1,4-dioxane, Chloroethane, Arsenic and Lead: 2004-2016
Ringwood Mines/Landfill Superfund Site

Well ID	Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	1,4-dioxane	Chloro ethane	Total Arsenic	Total Lead	Dissolved Arsenic	Dissolved Lead	Total Arsenic (USEPA 7062	Dissolved Arsenic (USEPA 7062
			GWQS[1]	1	0.4	5	3	5	3	5	3	3
CM SHAFT	CMSHAFT(50)(050712)	50'	5/7/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	CM-50 (091214)		9/12/2014	< 0.21		NA	< 2.6	< 3.8 B	< 2.6	< 1.3	NA	NA
	CM-50 (081415)		8/14/2015	<0.2	<0.27	<1	2.3 B	0.39 J	<0.5	<0.2	NA	NA
	CM-50 (082216)		8/22/2016	< 0.09	< 0.0735	< 0.37	< 0.71	0.47 J	< 0.71	< 0.44	NA	NA
	CMSHAFT(100)(050712)	100'	5/7/2012	< 0.22		<1	< 0.97	1.7 B	< 0.97	< 1.7	NA	NA
	CM-100(091814)		9/18/2014	< 0.21		<1	R	2.4 J	R	< 1.3	NA	NA
	CMSHAFT(100)(081715)		8/17/2015	<0.2	0.47J	<1	1.6 J	0.29 J	<0.5	<0.2	NA	NA
	CM-100(082216)		8/22/2016	< 0.09	< 0.0735	< 0.37	< 0.71	0.51 J	< 0.71	< 0.44	NA	NA
	CM SHAFT (160)(050912)	160'	5/9/2012	< 0.22		<1	< 0.97	< 3.0	< 0.97	< 1.7	NA	NA
	CM-160(091814)		9/18/2014	< 0.21		<1	< 2.6	13.2 J	< 2.6	< 3.0 B	NA	NA
	CMSHAFT(160)(081715)		8/17/2015	<0.2	.054J	<1	1.7 J	7.8	<0.5	<0.2	NA	NA
	CM-160(082216)		8/22/2016	< 0.09	0.0786 J	< 0.37	< 0.71	163	< 0.71	< 0.44	NA	NA
	CM SHAFT (275)(050912)	275'	5/9/2012	< 0.22		<1	< 0.97	< 3.0	< 0.97	< 1.7	NA	NA
	CM-275(091914)		9/19/2014	< 0.21		<1	< 2.6	104	< 2.6	< 3.0 B	NA	NA
	CM-275 (081815)		8/18/2015	<0.2	<0.27	<1	3.2 B	91	0.54 J	<0.2	NA	NA
	CM-275(082216)		8/22/2016	< 0.09	0.163	< 0.37	0.94 J	192	< 0.71	< 0.44	NA	NA
PM AIR SHAFT	PM AIR SHAFT-50(042312)	50'	4/23/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	PM AIRSHAFT-50(071112)		7/11/2012	< 0.24		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	PM AIRSHAFT-50(091614)		9/16/2014	< 0.21		<1	< 2.6	< 1.3	< 2.6	< 1.3	NA	NA
	PM AIRSHAFT-50(042414)		4/24/2015	<0.24		<.5	NA	NA	NA	NA	NA	NA
	PMAIRSHAFT-50(060215)		6/2/2015	<0.20		<1	NA	NA	NA	NA	NA	NA
	PM AIRSHAFT-50(082115)		8/21/2015	<0.20	<0.27	<1	< 1.3 B	4.5	<0.5	0.82 J	NA	NA
	PM AIRSHAFT-50(121715)		12/17/2015	<0.09	<0.053	<1	NA	NA	NA	NA	NA	NA
	PM AIRSHARFT-50(060116)[2]		6/1/2016	<1/<0.09	<0.40/<0.0735	<1/<0.13	NA	NA	NA	NA	NA	NA
	PM AIRSHAFT-50(082316)		8/23/2016	< 0.09	< 0.0735	< 0.37	< 0.64	1.7	< 0.64	0.44 J	NA	NA
	PMPAS-180(080507)	180'	5/7/2008	< 0.26		<1	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	PM AIRSHAFT-180		9/18/2008	26.4		21.6	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	PM AIRSHAFT(180)		7/10/2009	7.4		34.9	< 2.4	< 3.0	< 2.4	< 1.7	NA	NA
	PMAIR SHAFT-180		10/29/2009	0.60 J		0.39 J	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	PM AIRSHAFT 180		6/4/2010	< 0.23		<1	< 1.4	< 1.9	< 1.4	< 1.9	NA	NA
	PM AIRSHAFT-180(052411)		5/24/2011	2.5		5.3	< 0.92	2.5 B	< 0.92	< 0.94	NA	NA
	PM AIR SHAFT-180(042312)		4/23/2012	< 0.22		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	PM AIRSHAFT-180(071112)		7/11/2012	< 0.24		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	PM AIRSHAFT-180(071112) DUP		7/11/2012	< 0.24		<1	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	PMAIRSHAFT-180(091614)		9/16/2014	6.6		25.2	< 2.6	13.3	< 2.6	1.5 B	NA	NA
	PMAIRSHAFT-180(042415)		4/24/2015	2.3		7.9	NA	NA	NA	NA	NA	NA
	PMAIRSHAFT-180(060315)		6/3/2015	5.4		14	NA	NA	NA	NA	NA	NA
	PM AIRSHAFT 180(081715)		8/17/2015	4.1	12	14	1.2 J	0.024	<0.5	<0.2	NA	NA
	PM AIRSHAFT 180(121815)		12/18/2015	7.1	5.76J	33	NA	NA	NA	NA	NA	NA
	PM AIRSHAFT 180(060116)[2]		6/1/2016	6.4/5.6	5/18.2	48/20	NA	NA	NA	NA	NA	NA
	PM AIRSHAFT 180(082316)		8/23/2016	5.9	20.316.6*	44	< 0.64	131	< 0.64	< 0.38	NA	NA
	PMPAS-230(080507)	230'	5/7/2008	31.8		21.1	< 1.7	6.4	< 1.7	5.4	NA	NA
	PM AIRSHAFT-230		9/18/2008	29.1		19	< 1.7	< 1.4	< 1.7	< 1.4	NA	NA
	PM AIRSHAFT(230)		7/10/2009	7.6		34.9	< 2.4	< 3.0	< 2.4	< 1.7	NA	NA
	PMAIR SHAFT-230		10/29/2009	31.2		21.3	< 2.4	< 1.7	< 2.4	< 1.7	NA	NA
	PM AIRSHAFT 230		6/4/2010	31.0		15.9	1.8 B	< 1.9	< 1.4	< 1.9	NA	NA
	PM AIRSHAFT-230(052411)		5/24/2011	33.2		14	< 0.92	2.2 B	< 0.92	1.3 B	NA	NA
	PM AIR SHAFT-230(042412)		4/24/2012	< 0.22		<1	1.0 B	< 1.7	< 0.97	< 1.7	NA	NA
	PM AIR SHAFT-230(042412) DUP		4/24/2012	< 0.22		<1	< 0.97	1.9 B	< 0.97	< 1.7	NA	NA
	PM AIRSHAFT-230(071112)		7/11/2012	28.5		9.6	< 0.97	< 1.7	< 0.97	< 1.7	NA	NA
	PMAIRSHAFT-230(091714)		9/17/2014	32.9		9.7	4.2	3.4 J	4.9	2.2 J	NA	NA
	PMAIRSHAFT-230(042415)		4/24/2015	7.8		29.1	NA	NA	NA	NA	NA	NA
	PMAIRSHAFT-230(060315)		6/3/2015	25		8	NA	NA	NA	NA	NA	NA
	PM AIRSHAFT-230(081815)		8/18/2015	25	140	7.7	3 B	980	0.58 J	<0.2	NA	NA
	PM AIRSHAFT-230(121815)		12/18/2015	26	31.1	8	NA	NA	NA	NA	NA	NA
	PM AIR SHAFT-230(121815) DUP		12/18/2015	25	21.8	7.1	NA	NA	NA	NA	NA	NA
	PM AIR SHAFT-230(060116)[2]		6/1/2016	25/31	15/144	23/8.5	NA	NA	NA	NA	NA	NA
	PM AIRSHAFT-230(082316)		8/23/2016	29	146/107*	17	< 0.64	8.2	< 0.64	< 0.38	NA	NA

Notes:

Results for 1,4-dioxane, benzene, lead, and arsenic are presented in this table. See Summary tables for full results.

Results are presented in µg/L unless otherwise noted.

[1] NJGWQS, New Jersey Groundwater Quality Standard NJAC7:9C March 2014

[2] Results represent split samples between Test America (without isotope dilution) and Alpha Analytical (with isotope dilution), respectively.

1,4-dioxane analyzed by Method 8270 Sim with Isotope Dilution as of August 2016.

Shaded values exceed NJGWQS.

* First result by 8270 SIM-ID, second result via Method 522 from Pace Analytical as part of isotope study.

< = not detected

B (inorganic) = estimated result is between the detection limit and quantification limit

B (organic) = analyte found in associated method blank

ft bgs = feet below ground surface

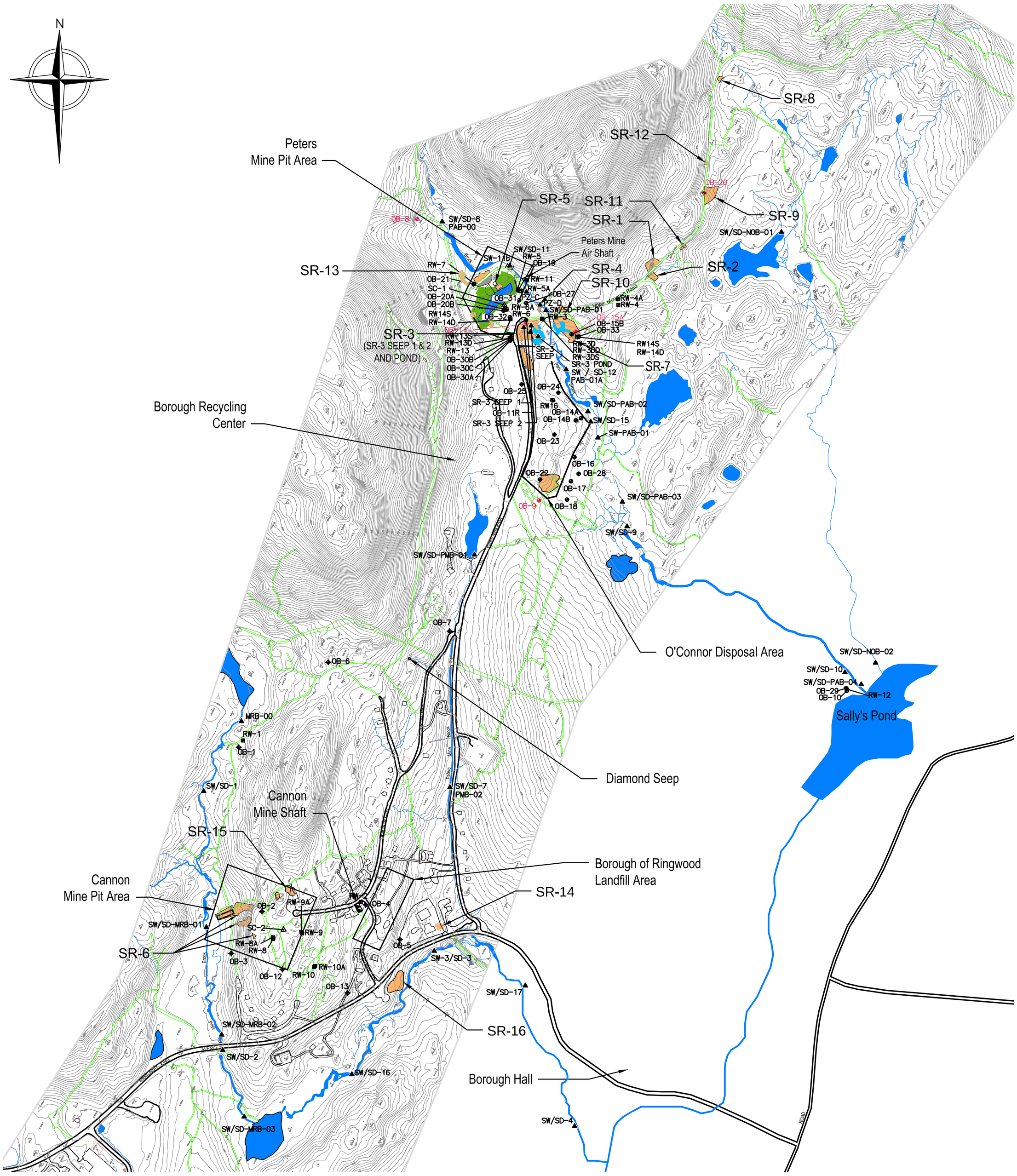
J = estimated result

NA = not analyzed or not available

R = rejected result

µg/L = micrograms per liter

ATTACHMENT A
FIGURES



NOTES:

1. MAP SOURCE: "SITE PLAN DEPICITING TOPOGRAPHIC FEATURES," RINGWOOD MINES/LANDFILL SITE, SITE RELATED GROUNDWATER REMEDIAL INVESTIGATION REPORT, MAP LATEST REVISION DATE 11/24/14.
2. EXISTING CONTOURS DEPICT TOPOGRAPHY PRIOR TO REMOVAL ACTIVITIES.

LEGEND

- BEDROCK WELL
- DEEP BEDROCK WELL
- DIRECTIONAL WELL
- UNCONSOLIDATED WELL
- MONITORING WELL DAMAGED OR NOT AVAILABLE FOR SAMPLING
- APPROXIMATE LIMITS OF REMOVAL AREAS – SOIL, PAINT SLUDGE, AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREA – SOIL AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREA – SOIL, DRUMS, AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREAS – SOIL AND PAINT SLUDGE
- APPROXIMATE LIMITS OF SURFICIAL SOIL SCRAPING
- HISTORICAL FILL AREA SURROUNDING PETERS MINE PIT (AREA 1)
- INDICATES VERNAL CONDITIONS TYPICALLY OBSERVED IN THE SPRING AND FALL SEASONS
- WATER BODY
- SW/SD-2 ▲ SURFACE WATER AND SEDIMENT – SAMPLE LOCATION
- SW/SD-MRB-01 ▲ SURFACE WATER AND SEDIMENT – SAMPLE LOCATION FROM MINE BROOK
- SW/SD-PMB-01 ▲ SURFACE WATER AND SEDIMENT – SAMPLE LOCATION FROM PETERS MINE BROOK
- SW/SD-NOB-01 ▲ SURFACE WATER AND SEDIMENT – SAMPLE LOCATION FROM NORTH BROOK
- SW/SD-PAB-01 ▲ SURFACE WATER AND SEDIMENT – SAMPLE LOCATION FROM PARK BROOK
- TRAIL/ DIRT ROAD
- STREAM
- INFERRED STREAM

400 200 0 400 800 1200

SCALE: 1"=400'

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 10/16

DRAWN BY _____ DESIGNED BY _____

CHECKED BY _____ APPROVED BY _____

cornerstone
A TETRA TECH COMPANY

RINGWOOD MINES/LANDFILL SUPERFUND SITE
RINGWOOD, NEW JERSEY
ANNUAL GROUNDWATER SURFACE WATER & MINE WATER SAMPLING REPORT

SAMPLING LOCATION PLAN

SHEET NO. 1

PROJECT NO. 150648

SR-13
(552.06)
OB-21
RW-7
528
526
524
522
520
PETERS MINE POND
PETERS MINE POND GUAGE
SC-1
518
PETERS MINE PIT AREA
SR-5
SW/SD-11
528
526
524
PETERS MINE AIR SHAFT
OB-20B
OB-20A
(517.98)
RW-6
RW-6A
OB-19
(519.99)
RW-5
RW-5A
RW-11D
RW-11S
(516.51)
OB-32
(517.92)
OB-31
RW-14D
RW-14S
PZ-C (522.95)
(516.97)
OB-27
522
520
518
516
514
SR-4
RW-13D
RW-13S
OB-30B
OB-30A
OB-30C
(514.06)
SR-3
(516.03)
OB-11R
SR-3 SEEP 1
SR-3 SEEP 2
O'CONNOR DISPOSAL AREA
PZ-D (515)
HISTORIC MINE STRUCTURE
SW/SD-PAB-01
RW-3DS
RW-3DD
RW-3D
RW-3S
SR-3 POND
CB.2
CB.1
(516.02)
OB-25
516
514
512
510
508
506
504
502
500
498
496
494
SR-10
SW/SD-PAB-01A
OB-15B
(511.63)
SR-7
RW-15D
RW-15S
OB-33
(508.91)
SW/SD-12/PAB-01A
RW-16
OB-24
(496.07)
494
496
498
500
502
504
506
508
510
512

LEGEND:

- EXISTING CONTOUR
- LIMIT OF SURFACE WATER
- OVERHEAD UTILITY LINES
- PROPERTY BOUNDARY
- TREE LINE
- EXISTING DIRT TRAIL/ROAD
- STABILIZED ACCESS ROAD
- OB-19 — OVERBURDEN MONITORING WELL
- STAFF GAUGE
- RW-5 — BEDROCK MONITORING WELL
- VS-1 / RSH-1 — MINE SHAFTS
- SC-1 — DIRECTIONAL MONITORING WELL
- 601 — BLOCK
- 12 — LOT
- 505 — GROUNDWATER ELEVATION CONTOUR – OVERBURDEN (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION OF OVERBURDEN
- (512.70) — GROUNDWATER/SURFACE WATER ELEVATION (FEET MSL) (DATA FROM SEPTEMBER 2014)
- SW/SD-11 — SURFACE WATER AND SEDIMENT – SAMPLE LOCATION/ STAFF GUAGE
- SW/SD-PMB-01 — SURFACE WATER AND SEDIMENT – SAMPLE LOCATION FROM PETERS MINE BROOK/ STAFF GUAGE
- APPROXIMATE LIMITS OF REMOVAL AREAS – SOIL, PAINT SLUDGE, AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREA – SOIL AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREA – SOIL, DRUMS, AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREAS – SOIL AND PAINT SLUDGE
- APPROXIMATE LIMITS OF SURFICIAL SOIL SCRAPING
- HISTORICAL FILL AREA SURROUNDING PETERS MINE POND (AREA 1)
- INDICATES VERNAL CONDITIONS TYPICALLY OBSERVED IN THE SPRING AND FALL SEASONS
- WATER BODY
- STREAM

NOTES:

1. RW-3S REPRESENTS THE 77-87 FOOT INTERVAL AND RW-3D IS A MULTIPORT WELL.
2. RW-13S REPRESENTS THE 71-91 FOOT INTERVAL AND RW-13D IS A MULTIPORT WELL.

0 60' 120'
GRAPHIC SCALE

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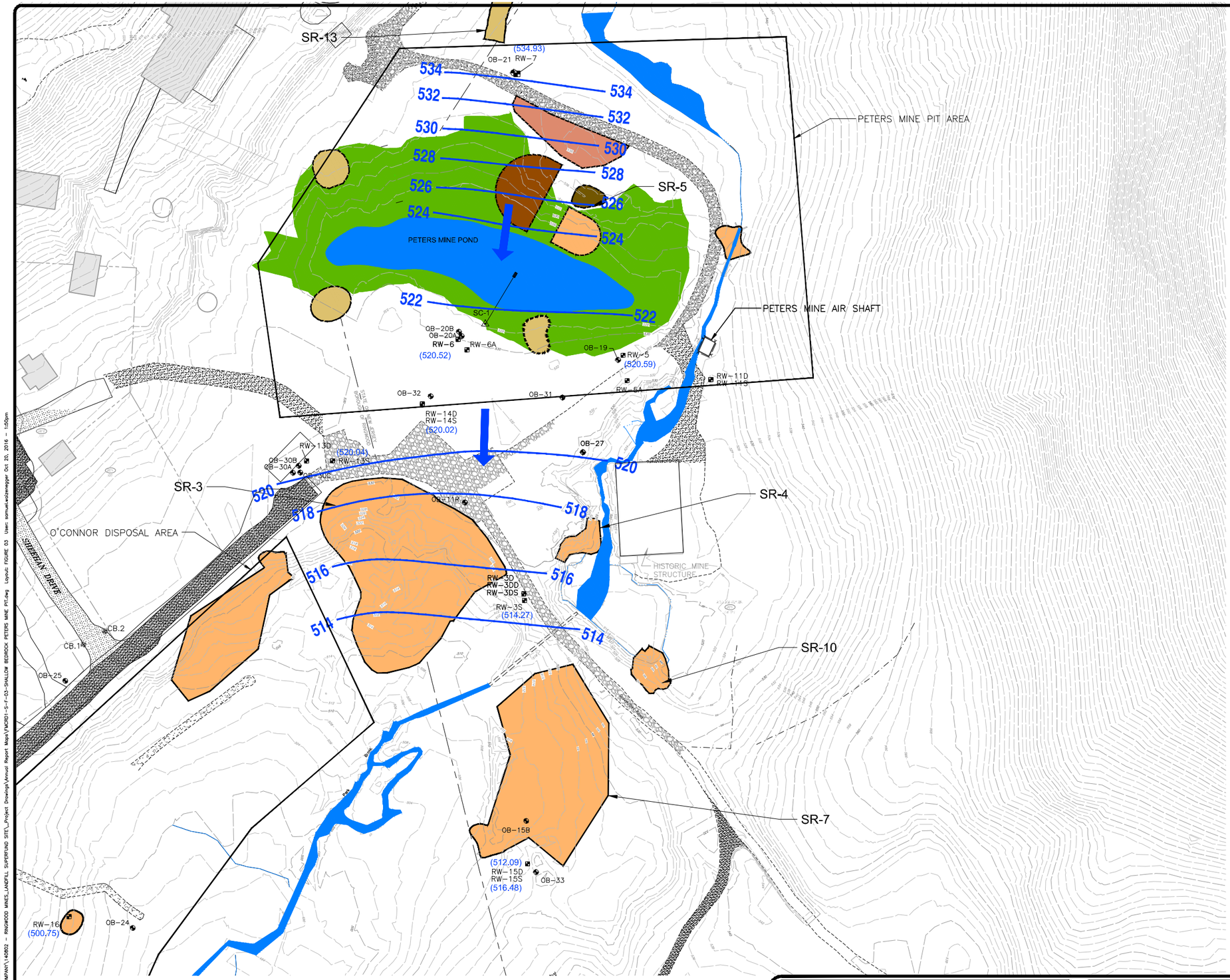
RINGWOOD MINES/LANDFILL SITE
RINGWOOD, PASSAIC COUNTY, NEW JERSEY
ANNUAL GROUNDWATER, SURFACE WATER, AND MINE WATER MONITORING REPORT
OVERBURDEN WELL LOCATIONS AND OVERBURDEN GROUNDWATER CONTOURS IN THE PETERS MINE PIT - AUGUST 2016

SHEET NO. 2
PROJECT NO. 140802

1" 1/2" 0" 1"

File: X:\PROJECTS\FORD MOTOR COMPANY\140802 - RINGWOOD MINES_LANDFILL SUPERFUND SITE_Project Drawings\Annual Report Maps\FIG2001-S-F-02-08 WELL PETERS MINE PIT.DWG Layout: FIGURE 02 User: asmuel.wittenberger Oct 28, 2016 - 8:31am



LEGEND:

- 530 — EXISTING CONTOUR
- LIMIT OF SURFACE WATER
- OVERHEAD UTILITY LINES
- EXISTING DIRT TRAIL/ROAD
- STABILIZED ACCESS ROAD
- OB-27 — OVERBURDEN MONITORING WELL
- RW-5 — BEDROCK MONITORING WELL
- SC-1 — DIRECTIONAL MONITORING WELL
- 601 — BLOCK
- 12 — LOT
- MSL — MEAN SEA LEVEL
- FT — FEET
- 520 — GROUNDWATER ELEVATION CONTOUR – SHALLOW BEDROCK
- GROUNDWATER FLOW DIRECTION OF SHALLOW BEDROCK INTERVAL 100' (2-FT CONTOUR INTERVAL)
- (520.18) — GROUNDWATER ELEVATION (FEET MSL) (DATA FROM SEPTEMBER 2014)
- APPROXIMATE LIMITS OF REMOVAL AREAS – SOIL, PAINT SLUDGE, AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREA – SOIL AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREA – SOIL, DRUMS, AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREAS – SOIL AND PAINT SLUDGE
- APPROXIMATE LIMITS OF SURFICIAL SOIL SCRAPING
- HISTORICAL FILL AREA SURROUNDING PETERS MINE POND (AREA 1)
- INDICATES VERNAL CONDITIONS TYPICALLY OBSERVED IN THE SPRING AND FALL SEASONS
- WATER BODY
- STREAM

NOTES:

1. BEDROCK CONTOURS BASED ON INTERVAL 75 TO 125 FEET BELOW GROUND SURFACE (405–440 FT MSL).
2. RW-5A AND RW-6A NOT USED TO CONTOUR BEDROCK.
3. RW-3S REPRESENTS THE 77–87 FOOT INTERVAL AND RW-3D IS A MULTIPORT WELL.
4. RW-13S REPRESENTS THE 71–91 FOOT INTERVAL AND RW-13D IS A MULTIPORT WELL.

0 60' 120'
GRAPHIC SCALE

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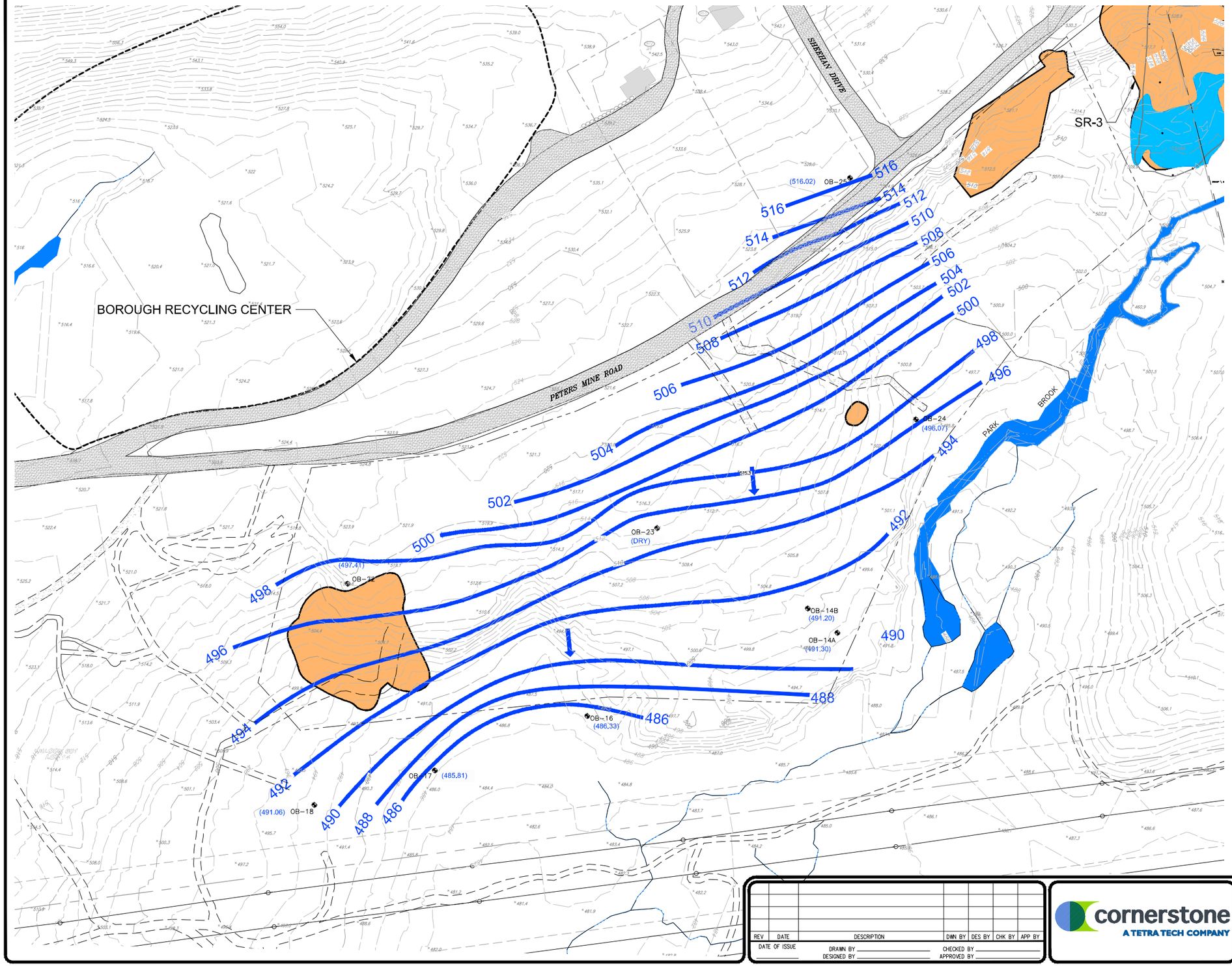
WELL LOCATIONS AND SHALLOW BEDROCK POTENTIOMETRIC SURFACE CONTOURS IN THE PETERS MINE PIT - AUGUST 2016

SHEET NO. 3
PROJECT NO. 140802



LEGEND:

- 530 — EXISTING CONTOUR
- 514 — GROUNDWATER CONTOUR LINE RELATIVE TO MEAN SEA LEVEL
- GROUNDWATER FLOW DIRECTION
- (484.90) GROUNDWATER LEVEL
- LIMIT OF SURFACE WATER
- OVERHEAD UTILITY LINES
- PROPERTY BOUNDARY
- OUTLINE OF O'CONNOR DISPOSAL AREA
- EXISTING DIRT ROAD/TRAIL
- OB-16 OVERBURDEN MONITORING WELL LOCATION
- OCDA O'CONNOR DISPOSAL AREA
- APPROXIMATE LIMITS OF REMOVAL AREAS – SOIL, PAINT SLUDGE, AND DRUM REMNANTS
- INDICATES VERNAL CONDITIONS TYPICALLY OBSERVED IN THE SPRING AND FALL SEASONS
- WATER BODY
- STREAM

0 30 60 90
SCALE IN FEET

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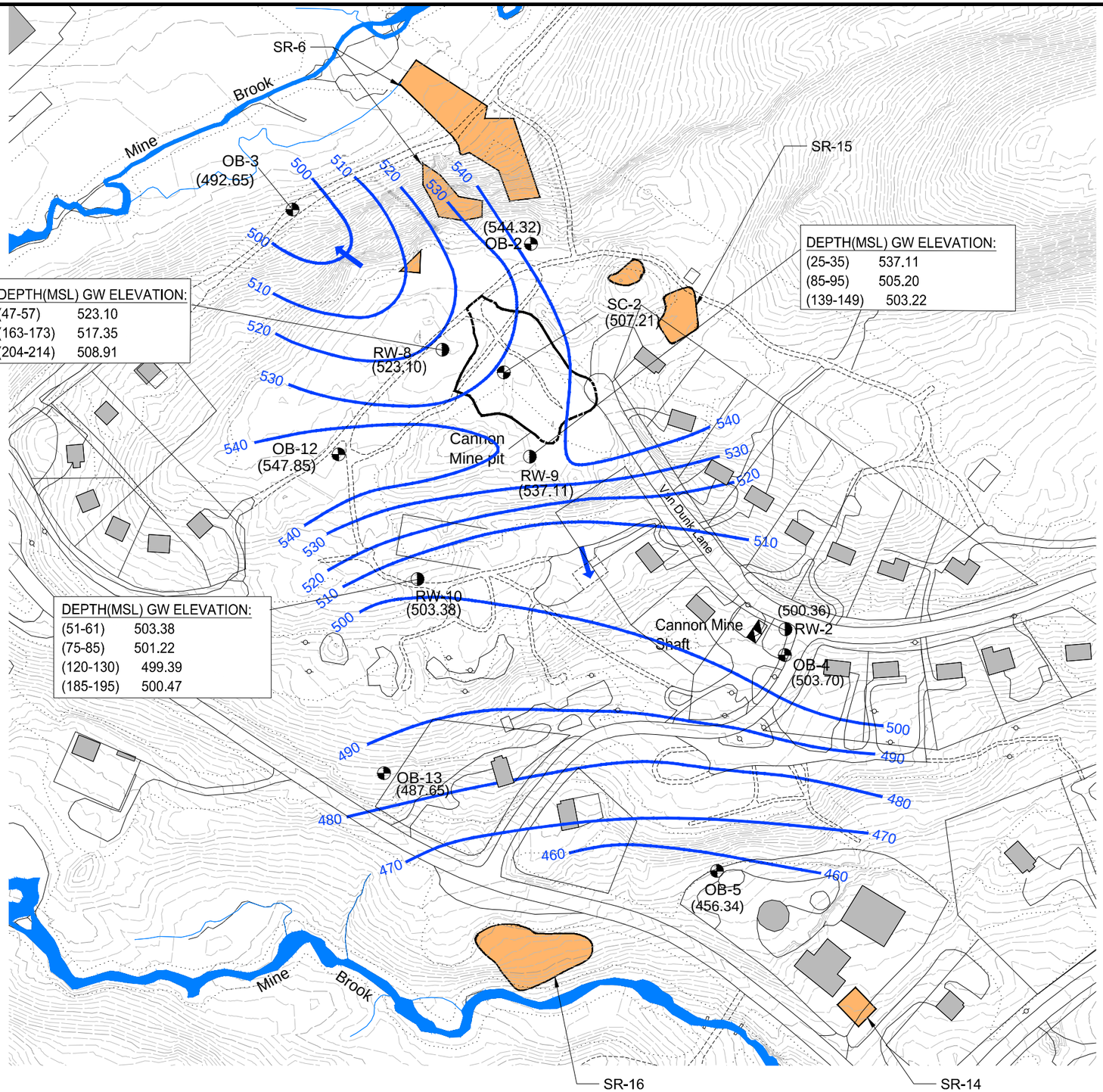
ANNUAL GROUNDWATER, SURFACE WATER, AND MINE WATER MONITORING REPORT
WELL LOCATIONS AND OVERBURDEN GROUNDWATER ELEVATION CONTOURS IN THE FORMER OCDA - AUGUST 2016

SHEET NO. **4**
PROJECT NO. 140802

File: X:\PROJECTS\FORD MOTOR COMPANY\140802 - RINGWOOD MINES_LANDFILL SUPERFUND SITE_Project Drawings\Annual Report Maps\FMCRDI-S-F-04-GW OCDA.dwg Layout: FIGURE 04 User: samuel.weizenegger Oct 20, 2016 - 1:54pm



LEGEND:

- RESIDENCE
- TRAILS
- ROADWAYS
- WATERWAYS, BROOKS
- GROUND SURFACE ELEVATION CONTOUR
- RW-10 (498.79) — BEDROCK MONITORING WELL WITH GROUNDWATER ELEVATION
- 490 — GROUNDWATER CONTOUR LINE RELATIVE TO MEAN SEA LEVEL (SHALLOW BEDROCK)
- GROUNDWATER FLOW DIRECTION OF SHALLOW BEDROCK BEDROCK INTERVAL SEPTEMBER 2014 (FT. MSL.) (10-FT CONTOUR INTERVAL)
- FT. MSL. — FEET ABOVE MEAN SEA LEVEL
- APPROXIMATE LIMITS OF PAINT SLUDGE REMOVAL AREAS
- WATER BODY
- STREAM

0 100 200 300
SCALE IN FEET

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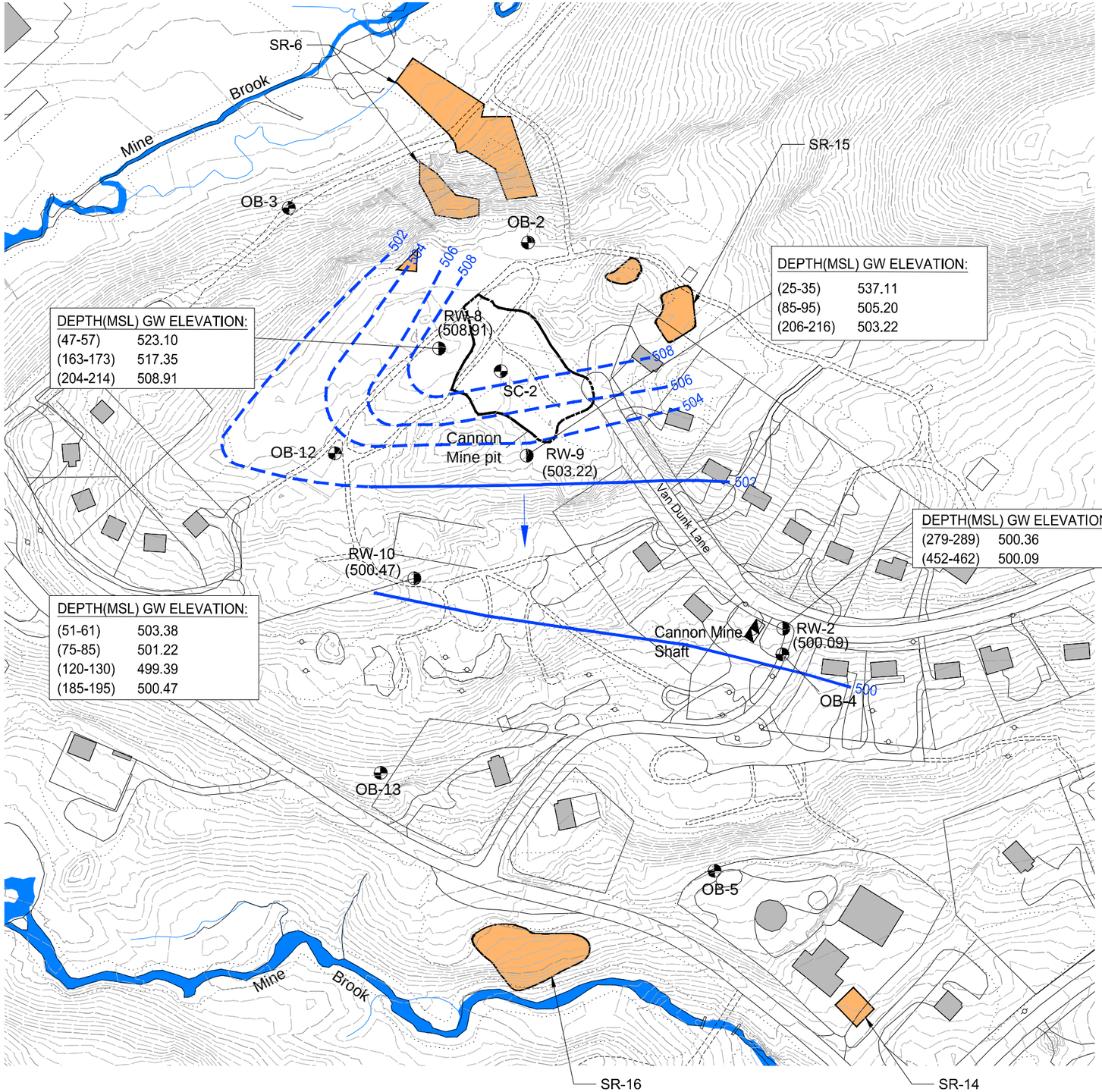
WELL LOCATIONS AND SHALLOW BEDROCK POTENTIOMETRIC SURFACE CONTOURS IN THE CMP - AUGUST 2016

SHEET NO. **5**
PROJECT NO. 140802

1" 1/2" 0" 1"

File: X:\PROJECTS\FORD MOTOR COMPANY\140802 - RINGWOOD MINES_LANDFILL SUPERFUND SITE_Project Drawings\Annual Report Maps\FMCRD1-S-F-05-SHALLOW BEDROCK CMP.dwg Layout: SHEET 05 User: samuel.wildermeyer Oct 20, 2016 - 2:16pm



LEGEND:

- RESIDENCE
- TRAILS
- ROADWAYS
- WATERWAYS, BROOKS
- GROUND SURFACE ELEVATION CONTOUR
- RW-10 (498.79) — BEDROCK MONITORING WELL WITH GROUNDWATER ELEVATION
- 490 — GROUNDWATER CONTOUR LINE RELATIVE TO MEAN SEA LEVEL (SHALLOW BEDROCK)
- GROUNDWATER FLOW DIRECTION OF SHALLOW BEDROCK BEDROCK INTERVAL SEPTEMBER 2014 (FT. MSL.) (10–FT CONTOUR INTERVAL)
- FT. MSL. — – FEET ABOVE MEAN SEA LEVEL
- APPROXIMATE LIMITS OF PAINT SLUDGE REMOVAL AREAS
- WATER BODY
- STREAM

0 100 200 300
SCALE IN FEET

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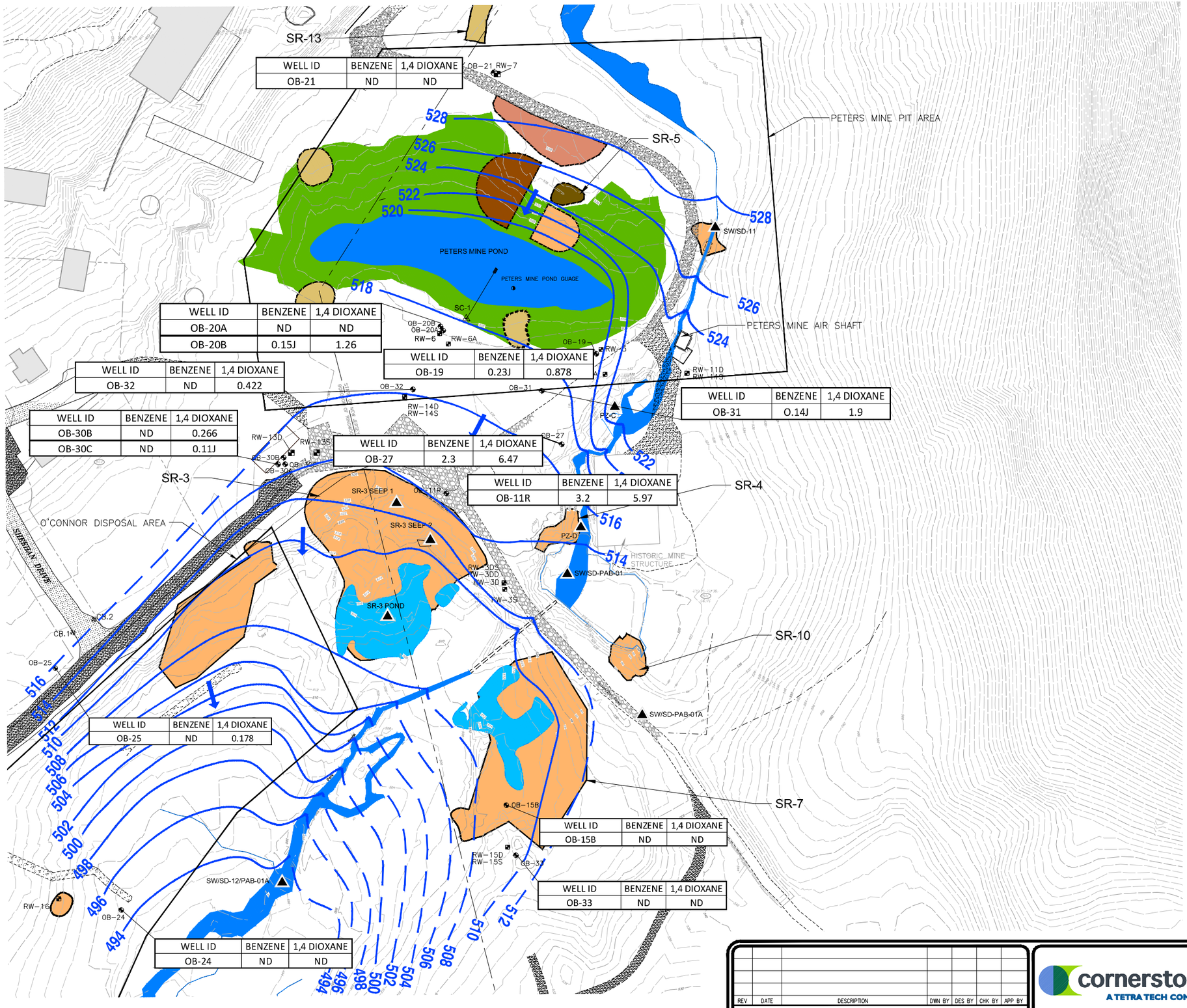
ANNUAL GROUNDWATER, SURFACE WATER,
AND MINE WATER MONITORING REPORT
WELL LOCATIONS AND DEEP BEDROCK
POTENTIOMETRIC SURFACE CONTOURS IN THE CMP - AUGUST 2016

SHEET NO. **6**
PROJECT NO. 140802

File: X:\PROJECTS\FORD MOTOR COMPANY\140802 - RINGWOOD MINES_LANDFILL SUPERFUND SITE_Project Drawings\Annual Report Maps\MCRD1-S-F-06-DEEP BEDROCK CMP.dwg Layout: FIGURE 06 User: samuelweilzeneggar Oct 20, 2016 - 2:20pm



N

LEGEND:

- EXISTING CONTOUR
- LIMIT OF SURFACE WATER
- OVERHEAD UTILITY LINES
- PROPERTY BOUNDARY
- TREE LINE
- EXISTING DIRT TRAIL/ROAD
- STABILIZED ACCESS ROAD
- OB–19 — OVERBURDEN MONITORING WELL
- STAFF GAUGE
- RW–5 — BEDROCK MONITORING WELL
- VS–1 / RSH–1 — MINE SHAFTS
- SC-1 — DIRECTIONAL MONITORING WELL
- 601 — BLOCK
- 12 — LOT
- 505 — GROUNDWATER ELEVATION CONTOUR – OVERBURDEN (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION OF OVERBURDEN
- (512.70) — GROUNDWATER/SURFACE WATER ELEVATION (FEET MSL) (DATA FROM SEPTEMBER 2014)
- SW/SD-11 — SURFACE WATER AND SEDIMENT – SAMPLE LOCATION/ STAFF GUAGE
- SW/SD-PMB-01 — SURFACE WATER AND SEDIMENT – SAMPLE LOCATION FROM PETERS MINE BROOK/ STAFF GUAGE
- APPROXIMATE LIMITS OF REMOVAL AREAS – SOIL, PAINT SLUDGE, AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREA – SOIL AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREA – SOIL, DRUMS, AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREAS – SOIL AND PAINT SLUDGE
- APPROXIMATE LIMITS OF SURFICIAL SOIL SCRAPING
- HISTORICAL FILL AREA SURROUNDING PETERS MINE POND (AREA 1)
- INDICATES VERNAL CONDITIONS TYPICALLY OBSERVED IN THE SPRING AND FALL SEASONS
- WATER BODY
- STREAM

NOTES:

1. RW–3S REPRESENTS THE 77–87 FOOT INTERVAL AND RW–3D IS A MULTIPORT WELL.
2. RW–13S REPRESENTS THE 71–91 FOOT INTERVAL AND RW–13D IS A MULTIPORT WELL.
3. "J" = ESTIMATED VALUE.
4. "D" = DILUTION.

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RINGWOOD, PASSAIC COUNTY, NEW JERSEY
ANNUAL GROUNDWATER, SURFACE WATER, AND MINE WATER MONITORING REPORT
OVERBURDEN GROUNDWATER BENZENE AND 1,4 DIOXANE CONCENTRATIONS IN THE PETERS MINE PIT - AUGUST 2016

SHEET NO. **7**
PROJECT NO. 140802

1" 1/2" 0" 1"

File: X:\PROJECTS\FORD MOTOR COMPANY\140802 - RINGWOOD MINES_LANDFILL SUPERFUND SITE_Project Drawings\Annual Report Maps\FMCR01-S-F-07-BENZENE DIOXANE CONC OB PMP.DWG Layout: FIGURE 07 User: samuel.weizenegger Oct 20, 2016 - 2:25pm

WELL ID	BENZENE	1,4 DIOXANE
RW-7	ND	ND

WELL ID	BENZENE	1,4 DIOXANE
SC-1	1.8	0.905

WELL ID	BENZENE	1,4 DIOXANE
RW-13(71-91)	ND	0.201
RW-13(100-120)	ND	0.097J
RW-13(150-170)	ND	ND

WELL ID	BENZENE	1,4 DIOXANE
RW-6	1.9	3.7
RW-6A	8.0	3.1

WELL ID	BENZENE	1,4 DIOXANE
RW-3(77-87)	ND	29.1
RW-3DS(155-160)	0.13J	25.1
RW-3DD(175-180)	0.26J	152/29.2J/20.9*

WELL ID	BENZENE	1,4 DIOXANE
RW-16	ND	ND

WELL ID	BENZENE	1,4 DIOXANE
RW-15S	ND	0.277B
RW-15D	ND	0.86

ID	BENZENE	1,4 DIOXANE
PM AIR SHAFT 50	ND	ND
PM AIR SHAFT 180	5.9	20.3/16.6*
PM AIR SHAFT 230	29	146/107*

WELL ID	BENZENE	1,4 DIOXANE
RW-11S(236-241)	ND	1.08
11D(262-267)	6.4	73.4/54.5*

WELL ID	BENZENE	1,4 DIOXANE
RW-5	ND	10.8
RW-5A	ND	ND

WELL ID	BENZENE	1,4 DIOXANE
RW-14S	ND	0.251
RW-14D	0.31J	0.973

SR-13
SR-5
SR-3
SR-4
SR-10
SR-7
PETERS MINE PIT AREA
PETERS MINE POND
PETERS MINE AIR SHAFT
O'CONNOR DISPOSAL AREA
SUPERIAN DRIVE
HISTORIC MINE STRUCTURE
OB-21 RW-7
OB-20B OB-20A RW-6 RW-6A
OB-19 RW-5
RW-11D RW-11S
OB-31 RW-5A
RW-14D RW-14S
OB-27
RW-13D RW-13S
OB-30B OB-30A OB-30C
OB-11R
RW-3D RW-3DD RW-3DS RW-3S
OB-15B
RW-15D RW-15S OB-33
CB.2 CB.1 OB-25
RW-16 OB-24
534 532 530 528 526 524 522 520 518 516 514

LEGEND:

- EXISTING CONTOUR
- LIMIT OF SURFACE WATER
- OVERHEAD UTILITY LINES
- EXISTING DIRT TRAIL/ROAD
- STABILIZED ACCESS ROAD
- OB-27 OVERBURDEN MONITORING WELL
- RW-5 BEDROCK MONITORING WELL
- SC-1 DIRECTIONAL MONITORING WELL
- 601 BLOCK
- 12 LOT
- MSL MEAN SEA LEVEL
- FT FEET
- 520 GROUNDWATER ELEVATION CONTOUR – SHALLOW BEDROCK
- GROUNDWATER FLOW DIRECTION OF SHALLOW BEDROCK INTERVAL 100' (2-FT CONTOUR INTERVAL)
- GROUNDWATER ELEVATION (FEET MSL) (DATA FROM SEPTEMBER 2014)
- APPROXIMATE LIMITS OF REMOVAL AREAS – SOIL, PAINT SLUDGE, AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREA – SOIL AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREA – SOIL, DRUMS, AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREAS – SOIL AND PAINT SLUDGE
- APPROXIMATE LIMITS OF SURFICIAL SOIL SCRAPING
- HISTORICAL FILL AREA SURROUNDING PETERS MINE POND (AREA 1)
- INDICATES VERNAL CONDITIONS TYPICALLY OBSERVED IN THE SPRING AND FALL SEASONS
- WATER BODY
- STREAM

NOTES:

1. BEDROCK CONTOURS BASED ON INTERVAL 75 TO 125 FEET BELOW GROUND SURFACE (405–440 FT MSL).
2. RW-5A AND RW-6A NOT USED TO CONTOUR BEDROCK.
3. RW-3S REPRESENTS THE 77-87 FOOT INTERVAL AND RW-3D IS A MULTIPORT WELL.
4. RW-13S REPRESENTS THE 71-91 FOOT INTERVAL AND RW-13D IS A MULTIPORT WELL.
5. "J" = ESTIMATED VALUE.
6. "D" = DILUTION.
7. * VALUES REPRESENT INDEPENDENT ANALYSIS. SEE TEXT FOR DISCUSSION.

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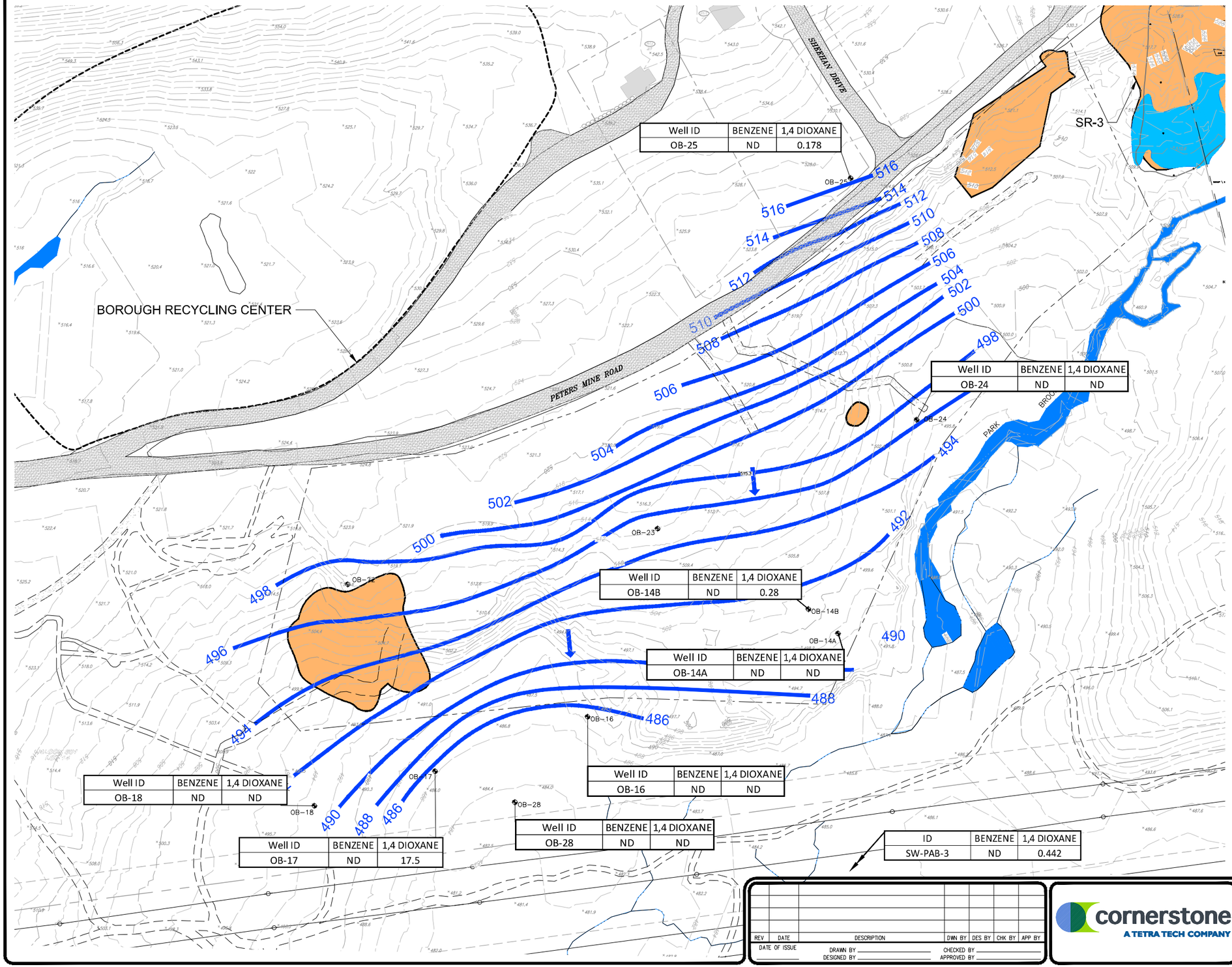
ANNUAL GROUNDWATER, SURFACE WATER, AND MINE WATER MONITORING REPORT
BEDROCK GROUNDWATER AND MINE WATER BENZENE AND 1,4 DIOXANE CONCENTRATIONS IN THE PETERS MINE PIT - AUGUST 2016

SHEET NO. **8**
PROJECT NO. 140802

1" 1/2" 0" 1"

File: K:\PROJECTS\FORD MOTOR COMPANY\140802 - RINGWOOD MINES_LANDFILL SUPERFUND SITE_Project Drawings\Annual Report Maps\FMCRD1-S-F-GB-BENZENE DIOXINE CONC SHALLOW PMP.dwg Layout: FIGURE 08 User: samuel.weitzenegger Oct 20, 2016 - 2:28pm



LEGEND:

- 530 — EXISTING CONTOUR
- 514 — GROUNDWATER CONTOUR LINE RELATIVE TO MEAN SEA LEVEL
- GROUNDWATER FLOW DIRECTION
- (484.90) GROUNDWATER LEVEL
- LIMIT OF SURFACE WATER
- OVERHEAD UTILITY LINES
- PROPERTY BOUNDARY
- OUTLINE OF O'CONNOR DISPOSAL AREA
- EXISTING DIRT ROAD/TRAIL
- OB-16 OVERBURDEN MONITORING WELL LOCATION
- OCDA O'CONNOR DISPOSAL AREA
- APPROXIMATE LIMITS OF REMOVAL AREAS – SOIL, PAINT SLUDGE, AND DRUM REMNANTS
- INDICATES VERNAL CONDITIONS TYPICALLY OBSERVED IN THE SPRING AND FALL SEASONS
- WATER BODY
- STREAM

0 30 60 90
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BENZENE AND 1,4 DIOXANE CONCENTRATIONS IN THE FORMER OCDA - AUGUST 2016

SHEET NO. **9**
PROJECT NO. 140802

1" 1/2" 0" 1"

File: X:\PROJECTS\FORD MOTOR COMPANY\140802 - RINGWOOD MINES_LANDFILL SUPERFUND SITE_Project Drawings\Annual Report Maps\TMCB01-S-F-09-BENZENE DIOXINE GW CONC OCDA.dwg Layout: FIGURE 09 User: samuel.wiesenager Oct 20, 2016 - 2:32pm

ID	BENZENE	1,4 DIOXANE
SW-MRB-01	ND	ND

ID	BENZENE	1,4 DIOXANE
SW-MRB-00	ND	ND

WELL ID	BENZENE	1,4 DIOXANE
OB-3	ND	ND

WELL ID	BENZENE	1,4 DIOXANE
OB-2	ND	ND

ID	BENZENE	1,4 DIOXANE
SW-MRB-02	ND	ND

ID	BENZENE	1,4 DIOXANE
SW-MRB-03	ND	ND

WELL ID	BENZENE	1,4 DIOXANE
OB-12	ND	ND

WELL ID	BENZENE	1,4 DIOXANE
OB-4	ND	0.079J

WELL ID	BENZENE	1,4 DIOXANE
OB-13	ND	ND

WELL ID	BENZENE	1,4 DIOXANE
OB-5	ND	0.165

SR-6
SW/SD-MRB-01
Brook
Mine
OB-3
SR-15
OB-2
SC-2
RW-8
OB-12
Cannon Mine pit
RW-9
Van Dunk Lane
RW-10
Cannon Mine Shaft
RW-2
OB-4
OB-13
OB-5
Mine
Brook
SR-16
SR-14

500 510 520 530 540 490 480 470 460

LEGEND:

- RESIDENCE
- TRAILS
- ROADWAYS
- WATERWAYS, BROOKS
- GROUND SURFACE ELEVATION CONTOUR
- RW-10 (498.79) — BEDROCK MONITORING WELL WITH GROUNDWATER ELEVATION
- 490 — GROUNDWATER CONTOUR LINE RELATIVE TO MEAN SEA LEVEL (SHALLOW BEDROCK)
- GROUNDWATER FLOW DIRECTION OF SHALLOW BEDROCK BEDROCK INTERVAL SEPTEMBER 2014 (FT. MSL.) (10-FT CONTOUR INTERVAL)
- FT. MSL. — FEET ABOVE MEAN SEA LEVEL
- APPROXIMATE LIMITS OF PAINT SLUDGE REMOVAL AREAS
- WATER BODY
- STREAM

NOTES:

1. "J" = ESTIMATED VALUE.
2. "D" = DILUTION.

0 100 200 300
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ANNUAL GROUNDWATER, SURFACE WATER, AND MINE WATER MONITORING REPORT
SHALLOW BEDROCK BENZENE AND 1,4 DIOXANE CONCENTRATIONS IN THE CMP - AUGUST 2016

SHEET NO. **10**
PROJECT NO. 140802

1" 1/2" 0" 1"

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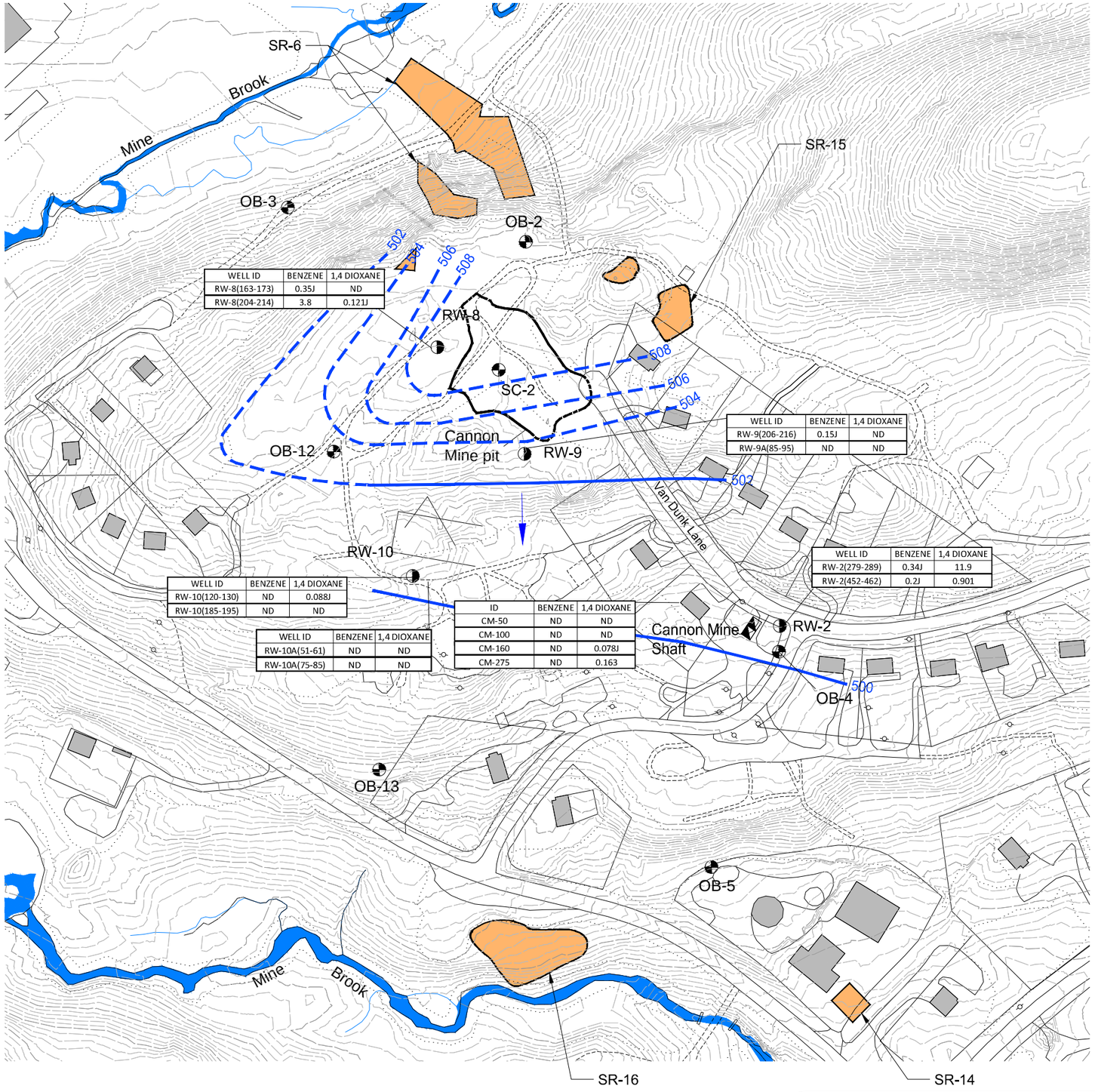

WELL ID	BENZENE	1,4 DIOXANE
RW-8(163-173)	0.35J	ND
RW-8(204-214)	3.8	0.121J

WELL ID	BENZENE	1,4 DIOXANE
RW-9(206-216)	0.15J	ND
RW-9A(85-95)	ND	ND

WELL ID	BENZENE	1,4 DIOXANE
RW-2(279-289)	0.34J	11.9
RW-2(452-462)	0.2J	0.901

WELL ID	BENZENE	1,4 DIOXANE
RW-10(120-130)	ND	0.088J
RW-10(185-195)	ND	ND

WELL ID	BENZENE	1,4 DIOXANE
RW-10A(51-61)	ND	ND
RW-10A(75-85)	ND	ND

ID	BENZENE	1,4 DIOXANE
CM-50	ND	ND
CM-100	ND	ND
CM-160	ND	0.078J
CM-275	ND	0.163

LEGEND:

- RESIDENCE
- TRAILS
- ROADWAYS
- WATERWAYS, BROOKS
- GROUND SURFACE ELEVATION CONTOUR
- RW-10 (498.79) — BEDROCK MONITORING WELL WITH GROUNDWATER ELEVATION
- 490 — GROUNDWATER CONTOUR LINE RELATIVE TO MEAN SEA LEVEL (SHALLOW BEDROCK)
- GROUNDWATER FLOW DIRECTION OF SHALLOW BEDROCK BEDROCK INTERVAL SEPTEMBER 2014 (FT. MSL.) (10-FT CONTOUR INTERVAL)
- FT. MSL. — FEET ABOVE MEAN SEA LEVEL
- APPROXIMATE LIMITS OF PAINT SLUDGE REMOVAL AREAS
- WATER BODY
- STREAM

NOTES:

1. "J" = ESTIMATED VALUE.
2. "D" = DILUTION.

0 100 200 300
SCALE IN FEET

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE
DRAWN BY
DESIGNED BY
CHECKED BY
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cornerstone
A TETRA TECH COMPANY

RINGWOOD MINES/LANDFILL SITE
RINGWOOD, PASSAIC COUNTY, NEW JERSEY
ANNUAL GROUNDWATER, SURFACE WATER, AND MINE WATER MONITORING REPORT
DEEP BEDROCK GROUNDWATER AND MINE WATER BENZENE AND 1,4 DIOXANE CONCENTRATIONS IN THE CMP - AUGUST 2016

SHEET NO. 11
PROJECT NO. 140802

1" 1/2" 0" 1"

File: X:\PROJECTS\FORD MOTOR COMPANY\140802 - RINGWOOD MINES_LANDFILL SUPERFUND SITE_Project Drawings\Annual Report Maps\FMCR01-S-F-11-BENZENE DIOXINE DEEP CONC CMP.dwg Layout: SHEET 11 User: samuel.weizenegger Oct 20, 2016 - 2:52pm

N

Peters Mine Pit Area

Borough Recycling Center

Cannon Mine Pit Area

Cannon Mine Shaft

SR-15

SR-6

SR-13

SR-3 (SR-3 SEEP 1 & 2 AND POND)

SR-5

SR-12

SR-11

SR-1

SR-4

SR-10

SR-8

SR-9

SR-2

SR-7

O'Connor Disposal Area

Diamond Seep

Borough of Ringwood Landfill Area

SR-14

SR-16

Borough Hall

Sally's Pond

Hope Shaft

Hope Pit

Peters Mine Air Shaft

ID	BENZENE	1,4 DIOXANE
PMP-PAB-00	ND	ND

ID	BENZENE	1,4 DIOXANE
PMP-POND	ND	ND / ND

ID	BENZENE	1,4 DIOXANE
SR-3 SEEP-1	0.38J	3.43

ID	BENZENE	1,4 DIOXANE
SR-3 SEEP-2	0.61J	3.5

ID	BENZENE	1,4 DIOXANE
SW-PMB-01	ND	ND

ID	BENZENE	1,4 DIOXANE
SW-11	ND	ND

ID	BENZENE	1,4 DIOXANE
SW-NOB-01	ND	ND

ID	BENZENE	1,4 DIOXANE
SR-3 POND	ND	2.94

ID	BENZENE	1,4 DIOXANE
SW-PAB-01A	ND	2.32

ID	BENZENE	1,4 DIOXANE
SW-PAB-02	ND	1.2

ID	BENZENE	1,4 DIOXANE
SW-PAB-01	0.12J	1.4

ID	BENZENE	1,4 DIOXANE
SW-PAB-03	ND	0.442

ID	BENZENE	1,4 DIOXANE
SW-NOB-02	ND	ND

ID	BENZENE	1,4 DIOXANE
SW-PAB-04	ND	0.34

ID	BENZENE	1,4 DIOXANE
SW-PMB-02	ND	ND

ID	BENZENE	1,4 DIOXANE
SW-MRB-00	ND	ND

ID	BENZENE	1,4 DIOXANE
SW-01	ND	ND

ID	BENZENE	1,4 DIOXANE
SW-MRB-01	ND	ND

ID	BENZENE	1,4 DIOXANE
SW-MRB-02	ND	ND /ND

ID	BENZENE	1,4 DIOXANE
SW-MRB-03	ND	ND /ND

ID	BENZENE	1,4 DIOXANE
SW-SP-01	ND	ND

ID	BENZENE	1,4 DIOXANE
SW-03	ND	ND

ID	BENZENE	1,4 DIOXANE
SW-04	ND	ND

NOTES:

1. MAP SOURCE: "SITE PLAN DEPICITING TOPOGRAPHIC FEATURES," RINGWOOD MINES/LANDFILL SITE, SITE RELATED GROUNDWATER REMEDIAL INVESTIGATION REPORT, MAP LATEST REVISION DATE 11/24/14.
2. THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DOES NOT HAVE A SURFACE WATER QUALITY STANDARD FOR 1,4–DIOXANE.
3. THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION INTERIM SPECIFIC GROUNDWATER QUALITY STANDARD FOR 1,4–DIOXANE IS 0.4 ug/l, EFFECTIVE 11/25/15.

LEGEND

- BEDROCK WELL
- DEEP BEDROCK WELL
- DIRECTIONAL WELL
- UNCONSOLIDATED WELL
- MONITORING WELL DAMAGED OR NOT AVAILABLE FOR SAMPLING
- APPROXIMATE LIMITS OF REMOVAL AREAS – SOIL, PAINT SLUDGE, AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREA – SOIL AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREA – SOIL, DRUMS, AND DRUM REMNANTS
- APPROXIMATE LIMITS OF REMOVAL AREAS – SOIL AND PAINT SLUDGE
- APPROXIMATE LIMITS OF SURFICIAL SOIL SCRAPING
- HISTORICAL FILL AREA SURROUNDING PETERS MINE PIT (AREA 1)
- INDICATES VERNAL CONDITIONS TYPICALLY OBSERVED IN THE SPRING AND FALL SEASONS
- WATER BODY
- SW/SD-2 ▲ SURFACE WATER AND SEDIMENT – SAMPLE LOCATION
- SW/SD-MRB-01 ▲ SURFACE WATER AND SEDIMENT – SAMPLE LOCATION FROM MINE BROOK
- SW/SD-PMB-01 ▲ SURFACE WATER AND SEDIMENT – SAMPLE LOCATION FROM PETERS MINE BROOK
- SW/SD-NOB-01 ▲ SURFACE WATER AND SEDIMENT – SAMPLE LOCATION FROM NORTH BROOK
- SW/SD-PAB-01 ▲ SURFACE WATER AND SEDIMENT – SAMPLE LOCATION FROM PARK BROOK
- TRAIL/ DIRT ROAD
- STREAM
- INFERRED STREAM

400 200 0 400 800 1200

SCALE: 1"=400'

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE 10/16

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A TETRA TECH COMPANY

RINGWOOD MINES/LANDFILL SUPERFUND SITE
RINGWOOD, NEW JERSEY
ANNUAL GROUNDWATER SURFACE WATER & MINE WATER SAMPLING REPORT

SURFACE WATER BENZENE, 1,4-DIOXANE CONCENTRATIONS

SHEET NO. 12

PROJECT NO. 150648

ATTACHMENT B

FIELD SAMPLING DATA SHEETS (ON COMPACT DISC)

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-2
Date:	8/17/16	Sampled By:	RJL		
Sampling Time:	12:50	Recorded By:	RJL		
Weather:	sunny / hot / 80F	Replicate/Split:	NA		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	RT7P59W4

PURGING INFORMATION

Casing Material:	Stainless steel	Purge Method:	**Low flow bladder pump**
Casing Diameter:	6"	Screen Interval:	8' to 42'
Total Depth:	42.35	Pump intake depth:	40'
Depth to Water:	18.68		
Water Column:	23.67	Total Volume Purged:	3.59 gallons
Gallons/Foot:	1.470	Pump on:	12:10 Off: 13:10
Gallons in Well:	34.79		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
12:10	0	340	0.00	1.5	344.0	5.64	0.079	21.44	18.69	10.91	
12:15	5	340	0.45	0.00	373.0	6.02	0.128	13.90	18.70	7.11	
12:20	10	340	0.90	0.00	381.0	6.02	0.128	13.65	18.71	6.57	
12:25	15	340	1.35	0.00	386.0	6.02	0.128	13.54	18.72	6.28	
12:30	20	340	1.80	0.00	391.0	6.01	0.128	13.57	18.72	6.14	
12:35	25	340	2.25	0.00	393.0	6.15	0.128	13.56	18.72	6.11	
12:40	30	340	2.69	0.00	395.0	6.02	0.128	13.56	18.72	6.06	
12:45	35	340	3.14	0.00	397.0	6.03	0.128	13.63	18.72	6.05	
12:50	40	340	3.59	0.00	396.0	6.02	0.128	13.67	18.72	6.03	

OBSERVATIONS DURING SAMPLING

Well Condition:	good	Purge Water Disposal:	CONTAINED
Color:	clear	Turbidity(qualitative):	clear
Odor:	none	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-3
Date:	8/16/16	Sampled By:	RJL		
Sampling Time:	16:10	Recorded By:	RJL		
Weather:	90 F Mostly Sunny	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	RT7P59W4

PURGING INFORMATION

Casing Material:	Steel	Purge Method:	**Low - Flow Bladder Pump**		
Casing Diameter:	6"	Screen Interval:	9' to 24'		
Total Depth:	23.45	Pump intake depth:	22'		
Depth to Water:	4.75				
Water Column:	18.70	Total Volume Purged:	3.38 gallons		
Gallons/Foot:	1.470	Pump on:	15:30	Off:	16:25
Gallons in Well:	27.49				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
15:30	0	320	0.00	87.7	211.0	6.59	0.140	17.90	4.80	9.30	
15:35	5	320	0.42	46.30	230.0	6.38	0.147	15.95	4.84	6.57	
15:40	10	320	0.85	28.70	242.0	6.33	0.147	15.69	4.85	5.89	
15:45	15	320	1.27	25.00	245.0	6.31	0.146	15.61	4.85	5.71	
15:50	20	320	1.69	21.20	246.0	6.37	0.146	15.44	4.85	5.54	
15:55	25	320	2.11	17.40	245.0	6.37	0.146	15.30	4.85	5.66	
16:00	30	320	2.54	14.70	246.0	6.38	0.145	15.42	4.85	5.58	
16:05	35	320	2.96	14.30	247.0	6.37	0.145	15.34	4.85	5.61	
16:10	40	320	3.38	14.10	248.0	6.35	0.145	15.38	4.85	5.57	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	CONTAINED
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	None

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-4
Date:	8/12/16	Sampled By:	RJL		
Sampling Time:	17:35	Recorded By:	RJL		
Weather:	85 F Sunny	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE 013626	Solinist	Horbia U-52	RT7D59W4

PURGING INFORMATION

Casing Material:	Steel	Purge Method:	**Low-Flow- Bladder Pump**		
Casing Diameter:	6"	Screen Interval:	28 to 61		
Total Depth:	60.45	Pump intake depth:	45		
Depth to Water:	17.18				
Water Column:	43.27	Total Volume Purged:	2.59 gallons		
Gallons/Foot:	1.470	Pump on:	17:00	Off:	17:50
Gallons in Well:	63.61				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
17:00	0	280	0.00	20.0	18.0	7.12	0.732	21.28	17.16	9.45	
17:05	5	280	0.37	0.00	-15.0	6.65	0.803	16.24	17.24	1.60	
17:10	10	280	0.74	0.00	-35.0	6.60	0.806	15.47	17.30	0.56	
17:15	15	280	1.11	0.00	-43.0	6.62	0.808	13.31	17.35	0.22	
17:20	20	280	1.48	0.00	-51.0	6.62	0.810	15.18	17.41	0.08	
17:25	25	280	1.85	0.00	-55.0	6.63	0.812	15.12	17.47	0.00	
17:30	30	280	2.22	0.00	-60.0	7.63	0.812	15.12	17.53	0.00	
17:35	35	280	2.59	0.00	-61.0	8.63	0.813	15.07	17.56	0.00	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	CONTAINED
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	None

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-5
Date:	8/18/16	Sampled By:	RJL		
Sampling Time:	12:40	Recorded By:	RJL		
Weather:	85 F Sunny	Replicate/Split:	NA		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE 013626	Solinist	Horbia U-52	RT7D59W4

PURGING INFORMATION

Casing Material:	steel	Purge Method:	**Low-Flow-Bladder Pump**		
Casing Diameter:	6"	Screen Interval:	18' to 63'		
Total Depth:	63.31	Pump intake depth:	50'		
Depth to Water:	2.81				
Water Column:	60.50	Total Volume Purged:	1.90 gallons		
Gallons/Foot:	1.470	Pump on:	12:10	Off:	13:00
Gallons in Well:	88.94				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
12:10	0	240	0.00	45.8	188.0	6.77	0.602	19.71	2.94	9.47	
12:15	5	240	0.32	12.60	-48.0	6.49	0.851	16.97	3.02	1.14	
12:20	10	240	0.63	2.50	-49.0	6.43	0.867	14.91	3.09	0.027	
12:25	15	240	0.95	0.00	-50.0	6.41	0.872	14.49	3.14	0.01	
12:30	20	240	1.27	0.00	-52.0	6.41	0.873	14.40	3.16	0.00	
12:35	25	240	1.59	0.00	-54.0	6.42	0.873	14.33	3.22	0.00	
12:40	30	240	1.90	0.00	-55.0	6.41	0.874	14.36	3.22	0.00	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	CONTAINED
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	None

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-6
Date:	8/18/16	Sampled By:	RJL		
Sampling Time:	10:20	Recorded By:	RJL		
Weather:	75 F Cloudy	Replicate/Split:	MS/MSD		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	RT7D59W4

PURGING INFORMATION

Casing Material:	Stainless Steel	Purge Method:	**Low Flow Bladder pump**		
Casing Diameter:	6"	Screen Interval:	10' to 36'		
Total Depth:	34.20	Pump intake depth:	33'		
Depth to Water:	7.64				
Water Column:	26.56	Total Volume Purged:	2.22 gallons		
Gallons/Foot:	1.470	Pump on:	9:45	Off:	11:05
Gallons in Well:	39.04				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:45	0	280	0.00	74.8	28.0	6.3	0.256	16.22	7.83	1.75	
9:50	5	280	0.37	54.20	27.0	6.22	0.253	15.20	7.91	0.71	
9:55	10	280	0.74	37.50	26.0	6.20	0.251	14.83	8.01	0.38	
10:00	15	240	0.95	35.10	25.0	6.19	0.250	14.78	8.08	0.12	
10:05	20	240	1.27	26.40	25.0	6.18	0.249	14.68	8.14	0.00	
10:10	25	240	1.59	23.00	25.0	6.18	0.249	14.66	8.19	0.00	
10:15	30	240	1.90	21.40	25.0	6.17	0.249	14.66	8.25	0.00	
10:20	35	240	2.22	20.80	25.0	6.18	0.249	14.64	8.32	0.00	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good, tab for lock broken on casing	Purge Water Disposal:	CONTAINED
Color:	clear	Turbidity(qualitative):	clear
Odor:	none	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-7
Date:	8/18/16	Sampled By:	RJL		
Sampling Time:	15:10	Recorded By:	RJL DW		
Weather:	85 F Sunny	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	RT7D59W4

PURGING INFORMATION

Casing Material:	Stainless steel	Purge Method:	**Low Flow Bladder Pump**		
Casing Diameter:	4"	Screen Interval:	14' to 42'		
Total Depth:	43.10	Pump intake depth:	30'		
Depth to Water:	5.17				
Water Column:	37.93	Total Volume Purged:	2.03 gallons		
Gallons/Foot:	0.650	Pump on:	14:35	Off:	15:25
Gallons in Well:	24.65				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
14:35	0	200	0.00	319.0	-63.0	7.09	0.555	24.02	5.25	13.01	
14:40	5	220	0.29	96.10	-37.0	6.92	0.581	17.86	5.32	8.48	
14:45	10	220	0.58	19.30	-30.0	6.83	0.596	15.33	5.38	7.08	
14:50	15	220	0.87	17.50	-28.0	6.78	0.599	14.66	5.41	6.47	
14:55	20	220	1.16	12.50	-28.0	6.81	0.602	14.36	5.42	5.90	
15:00	25	220	1.45	8.60	-30.0	6.85	0.602	14.15	5.44	5.26	
15:05	30	220	1.74	5.90	-32.0	6.85	0.603	13.96	5.46	4.58	
15:10	35	220	2.03	5.70	-3.0	6.85	0.604	13.87	5.47	4.46	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	clear
Odor:	No odor	Other (OVA, HNU,etc.):	None

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-8
Date:	8/16/16	Sampled By:	NA		
Sampling Time:	NA	Recorded By:	NA		
Weather:	sunny/hot/humid/ 88F	Replicate/Split:	NA		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)
Serial #:	MiniRAE 013626	Solinist	Horbia U-52

PURGING INFORMATION

Casing Material:		Purge Method:	
Casing Diameter:		Screen Interval:	
Total Depth:		Pump intake depth:	
Depth to Water:			
Water Column:		Total Volume Purged:	
Gallons/Foot:		Pump on:	Off:
Gallons in Well:			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
		Well not sampled - obstruction in well									

OBSERVATIONS DURING SAMPLING

Well Condition:		Purge Water Disposal:	
Color:		Turbidity(qualitative):	
Odor:		Other (OVA, HNU,etc.):	

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-10
Date:	8/16/16	Sampled By:	RJL		
Sampling Time:	10:20	Recorded By:	RJL		
Weather:	85 F Mostly Sunny	Replicate/Split:	NA		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	RT7D59W4

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder Pump**
Casing Diameter:	4"	Screen Interval:	10' to 20'
Total Depth:	21.10	Pump intake depth:	15'
Depth to Water:	6.76		
Water Column:	14.34	Total Volume Purged:	2.96 gallons
Gallons/Foot:	0.650	Pump on:	9:25 Off: 10:15
Gallons in Well:	9.32		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:25	0	320	0.00	0.0	190.0	7.04	0.179	15.44	6.76	19.01	
9:30	5	320	0.42	0.00	230.0	7.09	0.132	12.36	6.79	13.41	
9:35	10	320	0.85	0.00	255.0	7.06	0.130	11.90	6.80	12.10	
9:40	15	320	1.27	0.00	237.0	7.02	0.128	11.84	6.80	11.93	
9:45	20	320	1.69	0.00	237.0	7.00	0.128	11.89	6.80	11.19	
9:50	25	320	2.11	0.00	281.0	6.99	0.127	11.83	6.80	11.03	
9:55	30	320	2.54	0.00	286.0	6.99	0.127	11.72	6.80	11.11	
10:00	35	320	2.96	0.00	287.0	7.00	0.126	11.74	6.80	11.01	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-11R
Date:	8/17/16	Sampled By:	DW		
Sampling Time:	14:30	Recorded By:	DW		
Weather:	Sunny/Warm/80 F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	W46ALN65

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder Pump**
Casing Diameter:	2"	Screen Interval:	25' to 40'
Total Depth:	38.55	Pump intake depth:	32'
Depth to Water:	17.52		
Water Column:	21.03	Total Volume Purged:	2.11 gallons
Gallons/Foot:	0.160	Pump on:	13:47 Off: 14:45
Gallons in Well:	3.36		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:50	0	200	0.00	400.0	-74.0	6.2	0.582	16.32	17.60	6.18	
13:55	5	200	0.26	321.00	-81.0	6.29	0.598	13.30	17.61	1.45	
14:00	10	200	0.53	150.00	-82.0	6.31	0.611	12.85	17.62	1.09	
14:05	15	200	0.79	85.00	-81.0	6.31	0.617	12.55	17.62	1.27	
14:10	20	200	1.06	54.00	-81.0	6.30	0.618	12.51	17.62	1.15	
14:15	25	200	1.32	39.00	-81.0	6.28	0.620	12.25	17.62	0.91	
14:20	30	200	1.59	3705.00	-81.0	6.27	0.620	12.30	17.62	0.94	
14:25	35	200	1.85	3508.00	-81.0	6.26	0.620	12.31	17.62	0.93	
14:30	40	200	2.11	33.50	-81.0	6.26	0.620	12.34	17.62	0.95	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-12
Date:	8/12/16	Sampled By:	RJL		
Sampling Time:	11:10	Recorded By:	RJL		
Weather:	80 F Sunny	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	RT7P59W4

PURGING INFORMATION

Casing Material:	Stainless steel	Purge Method:	**Low Flow Bladder pump**
Casing Diameter:	6"	Screen Interval:	9' to 40'
Total Depth:	39.75	Pump intake depth:	20'
Depth to Water:	10.64		
Water Column:	29.11	Total Volume Purged:	2.96 gallons
Gallons/Foot:	1.470	Pump on:	10:30 Off: 11:25
Gallons in Well:	42.79		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:30	0	280	0.00	278.0	321.0	6.32	0.032	26.11	10.67	9.36	
10:35	5	280	0.37	0.00	353.0	5.85	0.071	13.86	10.68	7.96	
10:40	10	280	0.74	0.00	381.0	5.70	0.071	12.88	10.68	6.80	
10:45	15	280	1.11	0.00	416.0	5.35	0.071	12.50	10.68	6.52	
10:50	20	280	1.48	0.00	449.0	4.92	0.071	12.44	10.68	6.36	
10:55	25	280	1.85	0.00	459.0	4.82	0.071	12.28	10.68	6.25	
11:00	30	280	2.22	0.00	465.0	4.80	0.071	12.42	10.68	6.21	
11:05	35	280	2.59	0.00	467.0	4.79	0.071	12.32	10.68	6.19	
11:10	40	280	2.96	0.00	469.0	4.77	0.071	12.41	10.68	6.18	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-13
Date:	8/16/16	Sampled By:	RJL		
Sampling Time:	14:00	Recorded By:	RJL		
Weather:	85 F, Cloudy	Replicate/Split:	MS/MSD		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	RT7P59W4

PURGING INFORMATION

Casing Material:	steel	Purge Method:	**Low Flow Bladdder Pump**		
Casing Diameter:	6"	Screen Interval:	8' to 60'		
Total Depth:	32.35	Pump intake depth:	28'		
Depth to Water:	13.05				
Water Column:	19.30	Total Volume Purged:	3.38 gallons		
Gallons/Foot:	1.470	Pump on:	13:20	Off:	14:45
Gallons in Well:	28.37				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:20	0	320	0.00	110.0	296.0	7.65	0.107	19.31	13.11	15.62	
13:25	5	320	0.42	0.00	347.0	6.24	0.104	13.41	13.14	9.04	
13:30	10	320	0.85	0.00	369.0	6.00	0.104	13.04	13.19	7.41	
13:35	15	320	1.27	0.00	391.0	5.22	0.104	12.97	13.24	6.85	
13:40	20	320	1.69	0.00	400.0	5.22	0.104	13.25	13.26	6.56	
13:45	25	320	2.11	0.00	404.0	5.22	0.104	13.18	13.27	6.43	
13:50	30	320	2.54	0.00	392.0	5.95	0.104	13.05	13.27	6.25	
13:55	35	320	2.96	0.00	394.0	5.97	0.104	13.04	13.27	6.22	
14:00	40	320	3.38	0.00	396.0	5.98	0.104	13.00	13.27	6.21	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-14A
Date:	8/16/16	Sampled By:	JWG		
Sampling Time:	14:30	Recorded By:	JWG		
Weather:	85 F Cloudy	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	JN5GU241

PURGING INFORMATION

Casing Material:	Stainless steel	Purge Method:	**Low Flow Bladder Pump**	
Casing Diameter:	4"	Screen Interval:	4' to 14'	
Total Depth:	16.00	Pump intake depth:	12'	
Depth to Water:	10.10			
Water Column:	5.90	Total Volume Purged:	2.54 gallons	
Gallons/Foot:	0.650	Pump on:	13:50	14:25
Gallons in Well:	3.84			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:55	5	240	0.32	0.0	-50.0	6.42	0.833	15.56	10.76	1.56	
14:00	10	240	0.63	0.0	-51.0	6.40	0.823	15.29	11.02	0.82	
14:05	15	240	0.95	0.0	-52.0	6.27	0.819	15.14	11.51	0.58	
14:10	20	240	1.27	0.0	-52.0	6.36	0.819	15.01	11.79	0.44	
14:15	25	240	1.59	0.0	-52.0	6.36	0.818	15.00	11.96	0.34	
14:20	30	240	1.90	0.0	-52.0	6.37	0.818	14.97	12.14	0.27	
14:25	35	240	2.22	0.0	-52.0	6.35	0.819	14.96	12.27	0.24	
14:30	40	240	2.54	0.0	-52.0	6.34	0.818	14.95	12.36	0.22	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-14B
Date:	8/15/16	Sampled By:	DW		
Sampling Time:	14:35	Recorded By:	DW		
Weather:	sunny / warm /humid / 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	W46ALN65

PURGING INFORMATION

Casing Material:	Stainless steel	Purge Method:	**Low Flow bladder pump**
Casing Diameter:	4"	Screen Interval:	25' to 35'
Total Depth:	37.30	Pump intake depth:	30'
Depth to Water:	13.03		
Water Column:	24.27	Total Volume Purged:	2.38 Gallons
Gallons/Foot:	0.650	Pump on:	13:48 Off: 14:50
Gallons in Well:	15.78		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:50	0	200	0.00	11.3	34.0	6.6	0.721	17.45	13.03	4.55	
13:55	5	200	0.26	7.10	39.0	6.47	0.753	16.55	13.18	3.32	
14:00	10	200	0.53	3.10	27.0	6.55	0.791	15.90	13.21	1.12	
14:05	15	200	0.79	3.40	27.0	6.53	0.796	14.82	13.50	0.49	
14:10	20	200	1.06	3.50	25.0	6.53	0.795	14.63	13.72	0.33	
14:15	25	200	1.32	3.10	25.0	6.50	0.797	14.55	13.75	0.16	
14:20	30	200	1.59	3.20	24.0	6.48	0.796	14.56	13.78	0.00	
14:25	35	200	1.85	3.20	22.0	6.46	0.795	14.56	13.80	0.00	
14:30	40	200	2.11	3.10	22.0	6.45	0.794	14.57	13.82	0.00	
14:35	45	200	2.38	3.00	22.0	6.44	0.794	14.52	13.84	0.00	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-15B
Date:	8/17/16	Sampled By:	DW		
Sampling Time:	12:30	Recorded By:	DW		
Weather:	Sunny / warm/ humid / 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	W46ALN65

PURGING INFORMATION

Casing Material:	Stainless steel	Purge Method:	**Low Flow Bladder pump**		
Casing Diameter:	4"	Screen Interval:	25' to 35'		
Total Depth:	31.20	Pump intake depth:	33'		
Depth to Water:	2.46				
Water Column:	28.74	Total Volume Purged:	2.64 gallons		
Gallons/Foot:	0.650	Pump on:	11:39	Off:	12:45
Gallons in Well:	18.68				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
11:40	0	200	0.00	240.0	242.0	7.52	0.162	19.07	2.79	11.95	
11:45	5	200	0.26	154.00	120.0	7.71	0.155	19.14	3.05	2.80	
11:50	10	200	0.53	110.00	65.0	7.74	0.153	19.37	3.40	1.66	
11:55	15	200	0.79	102.00	14.0	7.75	0.154	19.21	3.80	1.06	
12:00	20	200	1.06	85.70	-8.0	7.76	0.154	19.20	4.07	2.13	
12:05	25	200	1.32	70.20	-19.0	7.74	0.154	19.34	4.31	2.03	
12:10	30	200	1.59	59.50	-28.0	7.73	0.153	19.78	4.55	2.00	
12:15	35	200	1.85	51.30	-28.0	7.74	0.153	19.71	4.72	1.99	
12:20	40	200	2.11	48.20	-27.0	7.73	0.153	19.75	4.80	1.95	
12:25	45	200	2.38	43.90	-28.0	7.73	0.153	19.76	4.85	1.98	
12:30	50	200	2.64	42.90	-28.0	7.73	0.153	19.78	4.89	2.03	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-16
Date:	8/16/16	Sampled By:	JG		
Sampling Time:	11:00	Recorded By:	JG		
Weather:	85 F Cloudy	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	JN5GU241

PURGING INFORMATION

Casing Material:	Stainless steel	Purge Method:	**Low Flow Bladder pump**
Casing Diameter:	4"	Screen Interval:	5' to 15'
Total Depth:	17.95	Pump intake depth:	10'
Depth to Water:	5.97		
Water Column:	11.98	Total Volume Purged:	1.90 gallons
Gallons/Foot:	0.650	Pump on:	10:30 Off: 11:15
Gallons in Well:	7.79		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:35	5	360	0.48	0.0	-54.0	5.77	1.020	16.25	6.47	6.07	
10:40	10	240	0.63	0.00	-61.0	5.76	1.020	15.93	6.65	5.01	
10:45	15	240	0.95	0.00	-62.0	5.74	1.020	15.89	6.54	4.50	
10:50	20	240	1.27	0.00	-63.0	5.73	1.020	15.85	6.58	4.44	
10:55	25	240	1.59	0.00	-65.0	5.72	1.020	15.81	6.57	4.28	
11:00	30	240	1.90	0.00	-66.0	5.72	1.020	15.79	6.61	4.19	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-17
Date:	8/16/16	Sampled By:	JG		
Sampling Time:	9:50	Recorded By:	JG		
Weather:	Partyl Sunny 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	JN5GU241

PURGING INFORMATION

Casing Material:	Stainless steel	Purge Method:	**Low flow Bladder pump**		
Casing Diameter:	4"	Screen Interval:	3' to 13'		
Total Depth:	17.05	Pump intake depth:	12'		
Depth to Water:	4.45				
Water Column:	12.60	Total Volume Purged:	2.22 gallons		
Gallons/Foot:	0.650	Pump on:	9:15	Off:	10:05
Gallons in Well:	8.19				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:20	5	240	0.32	26.1	153.0	5.89	0.688	18.30	5.85	12.90	
9:25	10	240	0.63	4.80	23.0	5.83	0.731	15.08	6.25	6.88	
9:30	15	240	0.95	3.40	16.0	5.80	0.730	15.00	6.37	6.01	
9:35	20	240	1.27	2.80	14.0	5.81	0.728	15.07	6.44	5.95	
9:40	25	240	1.59	1.70	10.0	5.79	0.722	15.02	6.49	5.73	
9:45	30	240	1.90	1.80	11.0	5.79	0.715	15.03	6.67	5.52	
9:50	35	240	2.22	1.60	10.0	5.79	0.711	15.04	6.71	5.49	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-18
Date:	8/16/16	Sampled By:	DW		
Sampling Time:	10:10	Recorded By:	DW		
Weather:	sunny / hot / humid / 80F	Replicate/Split:	DUP-1-081616		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	W46ALN65

PURGING INFORMATION

Casing Material:	Stainless steel	Purge Method:	**Low Flow Bladder pump**
Casing Diameter:	4"	Screen Interval:	10' to 20'
Total Depth:	22.00	Pump intake depth:	18'
Depth to Water:	5.20		
Water Column:	16.80	Total Volume Purged:	3.30 gallons
Gallons/Foot:	0.650	Pump on:	9:18 Off: 10:30
Gallons in Well:	10.92		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:20	0	250	0.00	1.9	255.0	6.37	0.288	15.05	5.38	32.70	
9:25	5	250	0.33	2.20	223.0	6.88	0.288	14.86	5.58	23.07	
9:30	10	250	0.66	3.50	233.0	6.92	0.288	14.03	5.76	14.55	
9:35	15	250	0.99	3.10	239.0	6.92	0.284	13.75	5.80	8.84	
9:40	20	250	1.32	2.80	245.0	6.92	0.280	13.60	6.00	7.00	
9:45	25	250	1.65	3.00	247.0	6.90	0.278	13.50	6.50	6.60	
9:50	30	250	1.98	2.90	249.0	6.90	0.278	13.46	6.65	6.80	
9:55	35	250	2.31	3.00	252.0	6.89	0.275	13.40	6.70	6.25	
10:00	40	250	2.64	3.20	256.0	6.87	0.272	13.38	6.75	6.00	
10:05	45	250	2.97	3.40	260.0	6.86	0.271	13.35	6.80	5.91	
10:10	50	250	3.30	3.50	265.0	6.86	0.272	13.33	6.81	5.56	

OBSERVATIONS DURING SAMPLING

Well Condition:	Goo	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-19
Date:	8/17/16	Sampled By:	DW		
Sampling Time:	17:20	Recorded By:	DW		
Weather:	sunny / hot / light wind / 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	W46ALN65

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder pump**		
Casing Diameter:	2"	Screen Interval:	5" to 20"		
Total Depth:	21.30	Pump intake depth:	17"		
Depth to Water:	12.40				
Water Column:	8.90	Total Volume Purged:	2.91 gallons		
Gallons/Foot:	0.160	Pump on:	16:28	Off:	17:35
Gallons in Well:	1.42				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:30	0	220	0.00	124.0	-1.0	5.66	0.148	23.90	12.77	13.48	
10:35	5	220	0.29	103.00	-4.0	5.64	0.150	23.90	12.95	7.40	
10:40	10	220	0.58	37.50	-6.0	5.53	0.167	18.45	12.99	2.92	
10:45	15	220	0.87	36.20	-6.0	5.50	0.168	18.05	13.00	2.54	
10:50	20	220	1.16	34.30	-6.0	5.50	0.168	18.09	13.00	2.20	
10:55	25	220	1.45	28.70	-6.0	5.47	0.169	17.76	13.00	1.86	
11:00	30	220	1.74	23.00	-6.0	5.42	0.171	17.17	13.00	1.46	
11:05	35	220	2.03	20.10	-7.0	5.40	0.171	17.00	13.00	1.14	
11:10	40	220	2.32	19.80	-8.0	5.39	0.172	16.95	13.00	1.00	
11:15	45	220	2.62	18.40	-8.0	5.39	0.171	16.90	13.00	0.95	
11:20	50	220	2.91	17.90	-8.0	5.38	0.172	16.87	13.00	0.88	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-20A
Date:	8/18/16	Sampled By:	JG		
Sampling Time:	9:55	Recorded By:	JG		
Weather:	Overcast 75 F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	JNSGU241

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder pump**
Casing Diameter:	2"	Screen Interval:	6" to 21"
Total Depth:	20.60	Pump intake depth:	15"
Depth to Water:	15.69		
Water Column:	4.91	Total Volume Purged:	2.22 gallons
Gallons/Foot:	0.160	Pump on:	9:20 Off: 10:10
Gallons in Well:	0.79		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:25	5	200	0.26	70.3	115.0	5.87	0.152	13.43	16.04	2.34	
9:30	10	200	0.53	28.10	47.0	5.91	0.166	12.77	16.10	1.03	
9:35	15	240	0.95	18.30	39.0	5.87	0.171	12.33	16.21	0.79	
9:40	20	240	1.27	14.00	23.0	5.93	0.181	12.09	16.21	0.60	
9:45	25	240	1.59	7.20	9.0	6.00	0.192	12.04	16.21	0.33	
9:50	30	240	1.90	6.90	6.0	6.03	0.195	11.99	16.21	0.34	
9:55	35	240	2.22	6.70	5.0	6.04	0.200	11.96	16.21	0.31	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-20B
Date:	8/18/16	Sampled By:	JG		
Sampling Time:	12:50	Recorded By:	JG		
Weather:	Partly Sunny 80 F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	JNSGU241

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder pump**
Casing Diameter:	2"	Screen Interval:	24' to 34'
Total Depth:	36.00	Pump intake depth:	30'
Depth to Water:	15.19		
Water Column:	20.81	Total Volume Purged:	1.74 gallons
Gallons/Foot:	0.160	Pump on:	12:20 Off: 13:05
Gallons in Well:	3.33		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
12:25	5	220	0.29	8.3	-47.0	6.23	0.539	12.61	16.10	9.13	
12:30	10	220	0.58	6.50	-35.0	6.29	0.538	12.06	16.16	7.31	
12:35	15	220	0.87	6.80	-40.0	6.29	0.537	11.89	16.24	5.87	
12:40	20	220	1.16	6.60	-42.0	6.30	0.537	11.68	16.31	5.93	
12:45	25	220	1.45	5.70	-43.0	6.29	0.537	11.79	16.39	5.86	
12:50	30	220	1.74	6.30	-44.0	6.30	0.538	11.81	16.42	5.88	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	none	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-21
Date:	8/18/16	Sampled By:	DW		
Sampling Time:	10:30	Recorded By:	DW		
Weather:	Overcast/ Humid/ 75 F	Replicate/Split:	Dup-02-081816		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	W46ALN65

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low flow Bladder pump**
Casing Diameter:	2"	Screen Interval:	6' to 21'
Total Depth:	20.20	Pump intake depth:	17'
Depth to Water:	8.15		
Water Column:	12.05	Total Volume Purged:	2.91 gallons
Gallons/Foot:	0.160	Pump on:	9:33 Off: 10:45
Gallons in Well:	1.93		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:35	0	200	0.00	511.0	195.0	6.79	0.105	18.54	8.25	7.41	
9:40	5	200	0.26	326.00	224.0	6.36	0.107	16.65	8.26	6.22	
9:45	10	200	0.53	245.00	235.0	6.28	0.109	15.17	8.26	3.77	
9:50	15	200	0.79	180.00	238.0	6.26	0.109	15.03	8.29	3.47	
9:55	20	200	1.06	115.00	242.0	6.24	0.110	14.76	8.30	3.20	
10:00	25	200	1.32	85.90	245.0	6.19	0.111	14.35	8.30	3.00	
10:05	30	200	1.59	60.30	245.0	6.19	0.111	14.33	8.31	2.88	
10:10	35	200	1.85	51.40	245.0	6.17	0.111	14.35	8.32	2.69	
10:15	40	200	2.11	48.90	245.0	6.13	0.111	14.23	8.32	2.54	
10:20	45	200	2.38	47.30	245.0	6.13	0.111	14.21	8.32	2.56	
10:25	50	200	2.64	43.1	241.0	6.10	0.111	14.2	8.32	2.51	
10:30	55	200	2.91	40.5	241.0	6.08	0.111	14.18	8.32	2.46	

OBSERVATIONS DURING SAMPLING

Well Condition:	good	Purge Water Disposal:	Contained
Color:	Cloudy	Turbidity(qualitative):	Cloudy
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-22
Date:	8/17/16	Sampled By:	DW		
Sampling Time:	DRY	Recorded By:	DW		
Weather:	sunny / hot / 80F	Replicate/Split:	NONE		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)
Serial #:	MiniRAE	Solinist	Horbia U-52

PURGING INFORMATION

Casing Material:	PVc	Purge Method:			
Casing Diameter:	2"	Screen Interval:	10' to 20'		
Total Depth:	21.85	Pump intake depth:			
Depth to Water:	20.95				
Water Column:	0.90	Total Volume Purged:			
Gallons/Foot:	0.160	Pump on:		Off:	
Gallons in Well:	0.14				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
				DRY WELL- No Sample							

OBSERVATIONS DURING SAMPLING

Well Condition:		Purge Water Disposal:	
Color:		Turbidity(qualitative):	
Odor:		Other (OVA, HNU,etc.):	

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-23
Date:	8/17/18	Sampled By:	DW		
Sampling Time:	DRY	Recorded By:	DW		
Weather:	Sunny / Hot / 80 F	Replicate/Split:			

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)
Serial #:	MiniRAE	Solinist	Horbia U-52

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low flow bladder pump**
Casing Diameter:	2"	Screen Interval:	10' to 20'
Total Depth:	21.18	Pump intake depth:	
Depth to Water:	DRY		
Water Column:		Total Volume Purged:	
Gallons/Foot:		Pump on:	Off:
Gallons in Well:			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
				Dry Well - No Sample							

OBSERVATIONS DURING SAMPLING

Well Condition:		Purge Water Disposal:	
Color:		Turbidity(qualitative):	
Odor:		Other (OVA, HNU,etc.):	

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-24
Date:	8/16/16	Sampled By:	JG		
Sampling Time:	15:40	Recorded By:	JG		
Weather:	Partly Sunny / 88 F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	JN5GU241

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder pump**		
Casing Diameter:	2"	Screen Interval:	5' to 15'		
Total Depth:	18.05	Pump intake depth:	12.5		
Depth to Water:	4.82				
Water Column:	13.23	Total Volume Purged:	2.22 gallons		
Gallons/Foot:	0.160	Pump on:	15:05	Off:	15:55
Gallons in Well:	2.12				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
15:10	5	240	0.32	89.5	-8.0	7.28	0.764	15.12	6.28	2.39	
15:15	10	240	0.63	76.80	70.0	7.47	0.740	15.47	6.51	2.31	
15:20	15	240	0.95	65.30	58.0	7.32	0.744	15.00	6.55	0.70	
15:25	20	240	1.27	33.10	43.0	7.24	0.742	14.82	6.59	0.42	
15:30	25	240	1.59	9.10	46.0	7.15	0.737	14.87	6.61	0.29	
15:35	30	240	1.90	8.40	46.0	7.22	0.731	14.77	6.63	0.32	
15:40	35	240	2.22	7.90	47.0	7.23	0.731	14.77	6.64	0.31	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-25
Date:	8/18/16	Sampled By:	RJL		
Sampling Time:	16:30	Recorded By:	RJL		
Weather:	Sunny / 85 F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	RT7059W4

PURGING INFORMATION

Casing Material:	PVc	Purge Method:	**Low Flow bladder pump**
Casing Diameter:	2"	Screen Interval:	10' to 20'
Total Depth:	18.35	Pump intake depth:	16'
Depth to Water:	11.32		
Water Column:	7.03	Total Volume Purged:	1.48 gallons
Gallons/Foot:	0.160	Pump on:	15:55 Off: 16:55
Gallons in Well:	1.12		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
15:55	0	160	0.00	193.0	152.0	7.55	0.001	23.23	11.45	0.81	
16:00	5	160	0.21	251.00	163.0	6.90	0.648	17.68	11.49	5.02	
16:05	10	160	0.42	62.80	170.0	6.82	0.651	16.82	11.54	4.61	
16:10	15	160	0.63	57.10	173.0	6.81	0.654	16.94	11.59	4.68	
16:15	20	160	0.85	62.60	175.0	6.82	0.654	17.22	12.64	4.48	
16:20	25	160	1.06	63.40	178.0	6.81	0.654	17.38	12.68	4.41	
16:25	30	160	1.27	65.60	179.0	6.82	0.653	17.44	12.72	4.38	
16:30	35	160	1.48	65.30	180.0	6.82	0.653	17.49	12.76	4.35	

OBSERVATIONS DURING SAMPLING

Well Condition:	Poorly fitting cap, damages inner casing	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-26
Date:	8/18/16	Sampled By:			
Sampling Time:	Damaged	Recorded By:			
Weather:	sunny/ hot/ humid / 80F	Replicate/Split:			

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)
Serial #:	MiniRAE	Solinist	Horbia U-52

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low flow Bladder pump**
Casing Diameter:	2"	Screen Interval:	10' to 20'
Total Depth:		Pump intake depth:	18'
Depth to Water:			
Water Column:		Total Volume Purged:	
Gallons/Foot:		Pump on:	Off:
Gallons in Well:			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
			Well damaged and no longer exists - No sample								

OBSERVATIONS DURING SAMPLING

Well Condition:		Purge Water Disposal:	
Color:		Turbidity(qualitative):	
Odor:		Other (OVA, HNU,etc.):	

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-27
Date:	8/17/16	Sampled By:	DW		
Sampling Time:	16:05	Recorded By:	DW		
Weather:	sunny / warm / 85 F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	W46ALN65

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder pump**
Casing Diameter:	2"	Screen Interval:	24.5' to 39.5'
Total Depth:	40.15	Pump intake depth:	32'
Depth to Water:	15.72		
Water Column:	24.43	Total Volume Purged:	2.38 gallons
Gallons/Foot:	0.160	Pump on:	15:18 Off: 16:20
Gallons in Well:	3.91		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (°C)	Depth to Water	Diss. Oxygen	Comments
15:20	0	200	0.00	650.0	-67.0	6.32	0.341	21.17	15.81	8.96	
15:25	5	200	0.26	400.00	-77.0	6.26	0.352	17.53	15.86	2.11	
15:30	10	200	0.53	33.10	-82.0	6.25	0.354	17.00	15.85	1.10	
15:35	15	200	0.79	300.00	-83.0	6.23	0.355	16.59	15.83	0.78	
15:40	20	200	1.06	170.00	-83.0	6.21	0.359	16.35	15.81	0.57	
15:45	25	200	1.32	76.50	-82.0	6.18	0.361	16.37	15.81	0.38	
15:50	30	200	1.59	49.50	-81.0	6.15	0.357	16.40	15.81	0.20	
15:55	35	200	1.85	46.80	-79.0	6.12	0.358	16.41	15.81	0.18	
16:00	40	200	2.11	42.30	-79.0	6.14	0.357	16.40	15.81	0.16	
16:05	45	200	2.38	39.80	-78.0	6.12	0.357	16.39	15.81	0.15	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	slight color	Turbidity(qualitative):	cloudy
Odor:	slight odor	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-28
Date:	8/15/16	Sampled By:	DW		
Sampling Time:	12:05	Recorded By:	DW		
Weather:	sunny/ hot/ 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	W46ALN65

PURGING INFORMATION

Casing Material:	PVc	Purge Method:	**Low Flow Bladder pump**
Casing Diameter:	2"	Screen Interval:	3 ' to 18'
Total Depth:	18.60	Pump intake depth:	16'
Depth to Water:	2.00		
Water Column:	16.60	Total Volume Purged:	4.95 gallons
Gallons/Foot:	0.160	Pump on:	10:48 Off: 12:20
Gallons in Well:	2.66		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:50	0	250	0.00	800.0	137.0	6.71	0.999	15.90	2.00	9.14	
10:55	5	250	0.33	707.00	96.0	6.73	1.020	15.02	2.10	7.78	
11:00	10	250	0.66	525.00	79.0	6.74	1.020	15.12	2.12	5.78	
11:05	15	250	0.99	481.00	75.0	6.74	1.020	15.39	2.12	5.26	
11:10	20	250	1.32	445.00	74.0	6.73	1.020	15.35	2.11	5.01	
11:15	25	250	1.65	318.00	73.0	6.71	1.020	15.22	2.11	4.84	
11:20	30	250	1.98	249.00	73.0	6.67	1.020	15.28	2.10	4.30	
11:25	35	250	2.31	205.00	73.0	6.65	1.020	15.21	2.10	4.37	
11:30	40	250	2.64	173.00	73.0	6.65	1.020	15.20	2.10	4.38	
11:35	45	250	2.97	90.50	73.0	6.60	1.020	15.20	2.10	4.20	
11:40	50	250	3.30	60.3	74.0	6.52	1.020	15.15	2.11	4.14	
11:45	55	250	3.63	49.3	75.0	6.50	1.020	15.1	2.10	4.10	
11:50	60	250	3.96	45.0	76.0	6.50	1.020	15.1	2.10	4.03	
11:55	65	250	4.29	43.8	75.0	6.50	1.020	15.11	2.10	4	
12:00	70	250	4.62	41.0	75.0	6.50	1.020	15.12	2.10	3.95	
12:05	75	250	4.95	42.5	74.0	6.50	1.020	15.13	2.10	3.96	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-29
Date:	8/16/16	Sampled By:	RJL		
Sampling Time:	11:40	Recorded By:	RJL		
Weather:	Partly Cloudy 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	RT7059W4

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder pump**
Casing Diameter:	2"	Screen Interval:	18' to 35'
Total Depth:	34.45	Pump intake depth:	32'
Depth to Water:	5.68		
Water Column:	28.77	Total Volume Purged:	3.80 gallons
Gallons/Foot:	0.160	Pump on:	10:55 Off: 11:55
Gallons in Well:	4.60		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:55	0	320	0.00	0.0	313.0	7.06	0.126	17.90	5.71	17.15	
11:00	5	320	0.42	0.00	311.0	7.04	0.125	13.44	5.71	13.04	
11:05	10	320	0.85	381.00	308.0	7.00	0.124	13.46	5.71	11.02	
11:10	15	320	1.27	226.00	316.0	6.99	0.124	13.20	5.71	10.75	
11:15	20	320	1.69	114.00	312.0	6.99	0.124	13.28	5.71	10.52	
11:20	25	320	2.11	42.00	311.0	6.98	0.124	13.11	5.71	10.45	
11:25	30	320	2.54	17.00	313.0	6.91	0.124	13.02	5.71	10.36	
11:30	35	320	2.96	12.00	315.0	7.02	0.123	13.29	5.71	10.16	
11:35	40	320	3.38	8.00	316.0	7.02	0.124	13.21	5.71	10.15	
11:40	45	320	3.80	5.00	316.0	6.99	0.124	13.17	5.71	10.18	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear- slightly cloudy
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-30A
Date:	8/17/16	Sampled By:	DW		
Sampling Time:	DRY	Recorded By:	DW		
Weather:	sunny / hot / 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)
Serial #:	MiniRAE	Solinist	Horbia U-52

PURGING INFORMATION

Casing Material:	PVC	Purge Method:			
Casing Diameter:	2"	Screen Interval:			
Total Depth:	20.70	Pump intake depth:			
Depth to Water:					
Water Column:	20.70	Total Volume Purged:			
Gallons/Foot:	0.000	Pump on:		Off:	
Gallons in Well:					

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
				DRY well - No sample							

OBSERVATIONS DURING SAMPLING

Well Condition:		Purge Water Disposal:	
Color:		Turbidity(qualitative):	
Odor:		Other (OVA, HNU,etc.):	

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-30B
Date:	8/17/16	Sampled By:	JG		
Sampling Time:	11:45	Recorded By:	JG		
Weather:	Sunny / Breezy / 80 F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	JNSGU241

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder pump**
Casing Diameter:	2"	Screen Interval:	21' to 36'
Total Depth:	38.50	Pump intake depth:	34'
Depth to Water:	18.92		
Water Column:	19.58	Total Volume Purged:	2.54 gallons
Gallons/Foot:	0.160	Pump on:	11:05 Off: 12:00
Gallons in Well:	3.13		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
11:10	5	240	0.32	27.5	271.0	6.09	0.359	15.28	20.51	2.07	
11:15	10	240	0.63	38.00	262.0	5.96	0.357	14.42	20.54	1.07	
11:20	15	240	0.95	48.70	246.0	6.02	0.351	13.87	20.54	0.58	
11:25	20	240	1.27	46.20	243.0	6.01	0.351	13.62	20.54	0.34	
11:30	25	240	1.59	23.90	242.0	5.98	0.353	13.58	20.54	0.18	
11:35	30	240	1.90	24.10	240.0	5.99	0.355	13.57	20.54	0.16	
11:40	35	240	2.22	22.80	239.0	5.99	0.357	13.57	20.54	0.13	
11:45	40	240	2.54	23.30	238.0	5.98	0.356	13.55	20.54	0.11	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-30C
Date:	8/17/16	Sampled By:	JG		
Sampling Time:	10:30	Recorded By:	JG		
Weather:	Partly Sunny / Windy / 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	JNSGU241

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder pump**
Casing Diameter:	2"	Screen Interval:	40' to 50'
Total Depth:	52.05	Pump intake depth:	45'
Depth to Water:	18.63		
Water Column:	33.42	Total Volume Purged:	2.03 gallons
Gallons/Foot:	0.160	Pump on:	9:55 Off: 10:45
Gallons in Well:	5.35		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:00	5	220	0.29	250.0	222.0	8.01	0.409	14.16	19.57	1.55	
10:05	10	220	0.58	184.00	220.0	8.09	0.394	13.61	21.47	1.74	
10:10	15	220	0.87	105.00	211.0	8.30	0.387	13.34	22.27	2.05	
10:15	20	220	1.16	61.30	203.0	8.36	0.386	13.57	22.88	2.01	
10:20	25	220	1.45	48.40	187.0	8.35	0.387	13.61	23.37	1.94	
10:25	30	220	1.74	44.10	189.0	8.31	0.389	13.63	23.87	1.90	
10:30	35	220	2.03	39.80	186.0	8.30	0.389	13.60	24.13	1.87	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-31
Date:	8/17/16	Sampled By:	JG		
Sampling Time:	14:45	Recorded By:	JG		
Weather:	Partly Sunny / 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	JNSGU241

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder pump**
Casing Diameter:	2"	Screen Interval:	23' to 33'
Total Depth:	33.00	Pump intake depth:	30'
Depth to Water:	15.34		
Water Column:	17.66	Total Volume Purged:	1.59 gallons
Gallons/Foot:	0.160	Pump on:	14:15 Off: 13:00
Gallons in Well:	2.83		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
14:20	5	200	0.26	266.0	-79.0	6.66	0.301	15.04	16.59	11.47	
14:25	10	200	0.53	215.00	-76.0	6.48	0.305	14.90	16.59	7.81	
14:30	15	200	0.79	93.00	-78.0	6.50	0.301	13.85	16.59	7.31	
14:35	20	200	1.06	46.00	-78.0	6.47	0.298	13.56	16.59	6.51	
14:40	25	200	1.32	43.00	-77.0	6.46	0.300	13.51	16.59	6.48	
14:45	30	200	1.59	41.00	-76.0	6.41	0.301	13.49	16.59	6.44	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-32
Date:	8/17/16	Sampled By:	JG		
Sampling Time:	13:05	Recorded By:	JG		
Weather:	Sunny / Breezy / 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	JNSGU241

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder pump**		
Casing Diameter:	2"	Screen Interval:	10' to 20'		
Total Depth:	23.00	Pump intake depth:	20		
Depth to Water:	17.74				
Water Column:	5.26	Total Volume Purged:	2.22 gallons		
Gallons/Foot:	0.160	Pump on:	12:55	Off:	13:45
Gallons in Well:	0.84				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:00	5	240	0.32	98.6	-101.0	6.68	0.472	16.16	17.81	6.45	
13:05	10	240	0.63	54.50	-100.0	6.64	0.463	14.87	17.81	2.50	
13:10	15	240	0.95	29.50	-102.0	6.67	0.459	14.36	17.81	1.28	
13:15	20	240	1.27	18.70	-104.0	6.67	0.458	14.19	17.81	0.73	
13:20	25	240	1.59	13.20	-99.0	6.65	0.456	14.10	17.81	0.61	
13:25	30	240	1.90	13.00	-102.0	6.66	0.456	14.07	17.81	0.56	
13:30	35	240	2.22	12.60	-103.0	6.66	0.455	14.11	17.81	0.53	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	OB-33
Date:	8/17/16	Sampled By:	DW		
Sampling Time:	11:05	Recorded By:	DW		
Weather:	Sunny / Hot / Partly Cloudy / 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	W46ALN65

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder pump**
Casing Diameter:	2"	Screen Interval:	66' to 76'
Total Depth:	52.05	Pump intake depth:	71'
Depth to Water:	9.44		
Water Column:	42.61	Total Volume Purged:	2.38 gallons
Gallons/Foot:	0.160	Pump on:	10:15 Off: 11:20
Gallons in Well:	6.82		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:20	0	200	0.00	16.0	229.0	6.62	0.136	17.22	9.32	24.50	
10:25	5	200	0.26	17.00	250.0	6.53	0.132	15.19	11.18	15.70	
10:30	10	200	0.53	10.20	263.0	6.48	0.131	14.59	11.26	12.00	
10:35	15	200	0.79	7.80	273.0	6.45	0.131	14.25	11.40	10.96	
10:40	20	200	1.06	7.30	281.0	6.43	0.131	14.08	11.52	10.55	
10:45	25	200	1.32	6.50	285.0	6.43	0.131	14.01	11.55	10.12	
10:50	30	200	1.59	7.90	289.0	6.43	0.132	13.94	11.61	9.73	
10:55	35	200	1.85	9.00	295.0	6.40	0.132	13.83	11.69	9.61	
11:00	40	200	2.11	9.60	297.0	6.41	0.131	13.75	11.73	9.45	
11:05	45	200	2.38	9.40	299.0	6.41	0.132	13.76	11.79	9.38	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-2(279-289)
Date:	8/22/16	Sampled By:	DW		
Sampling Time:	11:05	Recorded By:	DW		
Weather:	sunny/ hot / humid / 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	KP5Xr8NP

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST system**		
Casing Diameter:	1"	Screen Interval:	279' to 289'		
Total Depth:	289'	Pump intake depth:	284'		
Depth to Water:	11.87				
Water Column:	NA	Total Volume Purged:	1600 ml		
Gallons/Foot:	0.041	Pump on:	10:45	Off:	11:50
Gallons in Well:	0.41	PSI at 125	D/R at 10sec /1 min		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
11:05	17	100	0.45	0.0	-79.0	11.37	2.160	19.62	NA	9.25	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

**** Well interval water effervescent.**

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-2(452-462)
Date:	8/22/16	Sampled By:	DW		
Sampling Time:	13:00	Recorded By:	DW		
Weather:	sunny/ hot/ humid/ 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	KP5XR8NP

PURGING INFORMATION

Casing Material:	PVc	Purge Method:	**ZIST system**		
Casing Diameter:	1"	Screen Interval:	452' to 462'		
Total Depth:	462'	Pump intake depth:	457		
Depth to Water:	12.10				
Water Column:	Na	Total Volume Purged:	1600 ml		
Gallons/Foot:	0.041	Pump on:	11:55	Off:	15:45
Gallons in Well:	0.41	PSI at 200	D/R at 20 sec /45 sec		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:00	36	50	0.48	0.0	-38.0	11.29	1.340	19.75	NA	9.77	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-3(77-87)
Date:	8/24/16	Sampled By:	DW		
Sampling Time:	9:35	Recorded By:	DW		
Weather:	Sunny / hot / humid / 80F	Replicate/Split:	DUP-4-082416		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE 013626	Solinist	Horbia U-52	KP5XR8NP

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST system**		
Casing Diameter:	1'	Screen Interval:	77' to 87'		
Total Depth:	87.00	Pump intake depth:	82'		
Depth to Water:	13.94				
Water Column:	72.12	Total Volume Purged:			
Gallons/Foot:	0.041	Pump on:	9:20	Off:	10:30
Gallons in Well:	0.41	PSI at 50 psi	D/R at 10 sec / 1 min		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:35	15	125	0.50	13.3	-80.0	5.89	0.445	15.40	NA	9.43	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	slight	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-3DS(155-160)
Date:	8/23/2016	Sampled By:	DW		
Sampling Time:	15:00	Recorded By:	DW		
Weather:	sunny / hot / humid / 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	KP5XR8NP

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST system**		
Casing Diameter:	1"	Screen Interval:	155' to 160'		
Total Depth:	160'	Pump intake depth:	157.5		
Depth to Water:	15.88				
Water Column:	NA	Total Volume Purged:	800 ml		
Gallons/Foot:	0.041	Pump on:	14:25	Off:	17:45
Gallons in Well:	0.21	PSI at 75 psi	D/R at 15 sec / 1 min		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
15:00	10	120	0.32	20.1	-124.0	11.02	1.340	20.25	NA	5.71	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	slight	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-3DD(175-180)
Date:	8/23/16	Sampled By:	DW		
Sampling Time:	13:25	Recorded By:	DW		
Weather:	partly sunny / warm / 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST system**		
Casing Diameter:	1"	Screen Interval:	175-180		
Total Depth:	180'	Pump intake depth:	177.5		
Depth to Water:	16.33				
Water Column:	NA	Total Volume Purged:	800 ml		
Gallons/Foot:	0.041	Pump on:	13:07	Off:	13:50
Gallons in Well:	0.21	PSI at 85	D/R at 10 sec / 1 min		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:25	10	90	0.24	3.0	-112.0	9.92	0.274	21.66	NA	8.65	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-4(333-343)
Date:	8/24/16	Sampled By:	DW		
Sampling Time:	14:50	Recorded By:	DW		
Weather:	sunny/hot/humid 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST system**
Casing Diameter:	1"	Screen Interval:	333' to 343'
Total Depth:	343'	Pump intake depth:	338'
Depth to Water:	30.20		
Water Column:	NA	Total Volume Purged:	1600 ml
Gallons/Foot:	0.041	Pump on:	14:35 Off: 15:10
Gallons in Well:	0.41		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
14:50	15	110	0.44	8.3	-5.0	11.36	0.639	20.28	NA	10.25	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	none	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	150648	Task:	001	Well ID:	RW-4(393-403)
Date:	8/10/15	Sampled By:	CC / KL		
Sampling Time:	15:35	Recorded By:	CC / KL		
Weather:	sunny/ warm / 70F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST System**
Casing Diameter:	1"	Screen Interval:	393' to 403'
Total Depth:	403'	Pump intake depth:	398'
Depth to Water:	29.98		
Water Column:	NA	Total Volume Purged:	1600 ml
Gallons/Foot:	0.041	Pump on:	15:15 Off: 15:50
Gallons in Well:	0.41		D/R 15s / 1 min PSI at 170 lbs

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
15:31	16	100	0.42	7.9	134.0	8.24	0.179	16.83	NA	10.16	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Cloudy
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-4A(62-72)
Date:	8/25/16	Sampled By:	DW		
Sampling Time:	8:10	Recorded By:	DW		
Weather:	Cloudy/ warm/ 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST system**		
Casing Diameter:	1"	Screen Interval:	62' to 72'		
Total Depth:	72'	Pump intake depth:	67'		
Depth to Water:	18.88				
Water Column:	NA	Total Volume Purged:	1600 ml		
Gallons/Foot:	0.040	Pump on:	7:55	Off:	8:30
Gallons in Well:	0.41	PSI at 40 D/R at 10 sec / 1 min			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
8:10	15	110	0.44	6.8	-40.0	6.97	0.113	14.57	NA	10.81	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-4A(113-123)
Date:	8/24/16	Sampled By:	DW		
Sampling Time:	16:10	Recorded By:	DW		
Weather:	sunny/ hot /humid 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST System**
Casing Diameter:	1"	Screen Interval:	113' to 123'
Total Depth:	123'	Pump intake depth:	118'
Depth to Water:	31.45		
Water Column:	NA	Total Volume Purged:	1600 ml
Gallons/Foot:	0.041	Pump on:	15:55 Off: 16:30
Gallons in Well:	0.41		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
16:10	15	110	0.44	4.9	154.0	7.65	0.140	15.92	NA	11.11	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-5
Date:	8/18/16	Sampled By:	DW		
Sampling Time:	16:50	Recorded By:	DW		
Weather:	sunny / hot / 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Flow flow Bladder pump**
Casing Diameter:	2"	Screen Interval:	99' to 119'
Total Depth:	121.85	Pump intake depth:	109
Depth to Water:	12.89		
Water Column:	108.96	Total Volume Purged:	2.38 gallons
Gallons/Foot:	0.160	Pump on:	15:55 Off: 17:10
Gallons in Well:	17.43		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
16:06	0	200	0.00	88.0	-91.0	12.65	0.629	20.90	13.50	7.02	
16:10	5	200	0.26	55.30	-98.0	12.00	0.658	18.30	13.71	5.18	
16:15	10	200	0.53	22.20	-104.0	11.49	0.669	15.08	13.82	3.20	
16:20	15	200	0.79	25.80	-101.0	11.32	0.671	14.65	13.81	2.00	
16:25	20	200	1.06	24.90	-99.0	11.14	0.674	14.26	13.80	1.64	
16:30	25	200	1.32	26.30	-98.0	11.08	0.667	14.07	13.80	1.39	
16:35	30	200	1.59	28.50	-97.0	11.02	0.667	14.07	13.80	1.07	
16:40	35	200	1.85	29.90	-96.0	10.95	0.660	14.00	13.80	0.99	
16:45	40	200	2.11	31.50	-94.0	10.90	0.657	13.91	13.80	0.83	
16:50	45	200	2.38	33.80	-89.0	10.89	0.640	13.82	13.80	0.76	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	15	Well ID:	RW-5A
Date:	8/18/16	Sampled By:	DW		
Sampling Time:	14:45	Recorded By:	DW		
Weather:	sunny / hot / humid 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	W46ALN65

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low flow Bladder pump**
Casing Diameter:	2"	Screen Interval:	54' to 74'
Total Depth:	75.60	Pump intake depth:	64'
Depth to Water:	12.62		
Water Column:	62.98	Total Volume Purged:	2.64 gallons
Gallons/Foot:	0.160	Pump on:	13:50 Off: 14:55
Gallons in Well:	10.08		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:55	0	200	0.00	122.0	141.0	4.97	0.382	24.82	11.50	7.75	
14:00	5	200	0.26	147.00	91.0	4.84	0.417	22.21	11.95	7.58	
14:05	10	200	0.53	112.00	56.0	5.21	0.435	20.13	12.75	5.57	
14:10	15	200	0.79	100.00	45.0	5.40	0.436	19.53	13.78	5.04	
14:15	20	200	1.06	62.10	33.0	5.63	0.438	19.25	14.22	4.15	
14:20	25	200	1.32	46.00	31.0	5.78	0.439	18.88	14.38	3.44	
14:25	30	200	1.59	31.90	23.0	5.87	0.444	18.32	14.68	2.45	
14:30	35	200	1.85	25.10	19.0	6.00	0.445	18.00	14.90	2.30	
14:35	40	200	2.11	20.50	20.0	5.95	0.446	17.90	15.18	2.00	
14:40	45	200	2.38	17.10	19.0	5.96	0.446	17.78	15.30	1.15	
14:45	50	200	2.64	17.6	18.0	6.01	0.440	17.54	15.48	1.00	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-6
Date:	8/18/16	Sampled By:	JG		
Sampling Time:	11:20	Recorded By:	JG		
Weather:	Sunny / warm / 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	JNSGU241

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder pump**
Casing Diameter:	2"	Screen Interval:	99' to 119'
Total Depth:	122.10	Pump intake depth:	105
Depth to Water:	13.44		
Water Column:	108.66	Total Volume Purged:	1.85 gallons
Gallons/Foot:	1.449	Pump on:	10:45 Off: 12:00
Gallons in Well:	17.39		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:50	5	200	0.00	1.2	-76.0	6.82	0.552	12.31	13.68	1.26	
10:55	10	200	0.53	0	-79	6.78	0.569	11.93	13.68	0.39	
11:00	15	200	0.79	0	-76.0	6.72	0.576	11.82	13.68	0.11	
11:05	20	200	1.06	0	-55.0	6.43	0.601	11.70	13.68	0.00	
11:10	25	200	1.32	0	-51.0	6.39	0.635	11.71	13.68	0.00	
11:15	30	200	1.59	0	-48.0	6.37	0.638	11.73	13.68	0.00	
11:20	35	200	1.85	0	-46.0	6.36	0.639	11.74	13.68	0.00	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-6A
Date:	8//18/16	Sampled By:	JG		
Sampling Time:	14:30	Recorded By:	JG		
Weather:	sunny / hot/ humid / 85F	Replicate/Split:	none		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	JNSGU241

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder pump**		
Casing Diameter:	2"	Screen Interval:	58' to 78'		
Total Depth:	80.25	Pump intake depth:	75		
Depth to Water:	14.06				
Water Column:	66.19	Total Volume Purged:	2.59 gallons		
Gallons/Foot:	0.160	Pump on:	13:55	Off:	14:45
Gallons in Well:	10.59				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
14:00	5	250	0.33	1.4	-8.0	6.41	0.643	13.31	14.99	1.90	
14:05	10	280	0.74	0.00	-18.0	6.41	0.685	12.72	15.27	0.81	
14:10	15	280	1.11	0.00	-25.0	6.41	0.697	12.57	15.27	0.65	
14:15	20	280	1.48	0.00	-25.0	6.41	0.699	12.27	15.35	0.71	
14:20	25	280	1.85	0.00	-27.0	6.40	0.698	12.21	15.37	0.71	
14:25	30	280	2.22	0.00	-28.0	6.37	0.695	12.19	15.36	0.68	
14:30	35	280	2.59	0.00	-28.0	6.36	0.696	12.16	15.39	0.63	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-7
Date:	8/18/16	Sampled By:	DW		
Sampling Time:	12:20	Recorded By:	DW		
Weather:	Sunny / hot/ humid / 78F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	W46ALN65

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low flow Bladder pump**
Casing Diameter:	2"	Screen Interval:	99' to 119'
Total Depth:	120.65	Pump intake depth:	115
Depth to Water:	5.00		
Water Column:	115.65	Total Volume Purged:	2.11 gallons
Gallons/Foot:	0.160	Pump on:	11:40 Off: 12:30
Gallons in Well:	18.50		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
11:40	0	200	0.00	80.1	212.0	6.77	0.112	16.76	4.92	7.52	
11:45	5	200	0.26	56.00	219.0	6.65	0.113	16.23	4.96	6.97	
11:50	10	200	0.53	46.30	226.0	6.49	0.114	15.70	4.98	6.62	
11:55	15	200	0.79	45.90	230.0	6.38	0.113	15.20	4.98	5.87	
12:00	20	200	1.06	43.00	226.0	6.33	0.113	14.95	4.98	5.00	
12:05	25	200	1.32	41.80	223.0	6.31	0.113	14.98	4.98	4.91	
12:10	30	200	1.59	40.20	220.0	6.30	0.113	15.00	4.98	4.85	
12:15	35	200	1.85	39.50	218.0	6.30	0.113	14.94	4.98	4.80	
12:20	40	200	2.11	37.90	216.0	6.31	0.113	14.96	4.98	4.75	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-8A(163-173)
Date:	8/25/16	Sampled By:	DW		
Sampling Time:	16:05	Recorded By:	DW		
Weather:	sunny / hot / 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	KP5XR8UP

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST System**
Casing Diameter:	1"	Screen Interval:	163' to 173'
Total Depth:	173.00	Pump intake depth:	163'
Depth to Water:	52.66		
Water Column:	NA	Total Volume Purged:	1600 ml
Gallons/Foot:	0.041	Pump on:	15:48 Off: 16:25
Gallons in Well:	0.41	PSI at 100 lbs	D/R 15s / 1 min

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
16:02	16	100	0.42	0.1	-97.0	7.34	0.438	20.40	NA	7.65	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-8(204-214)
Date:	8/25/16	Sampled By:	DW		
Sampling Time:	13:45	Recorded By:	DW		
Weather:	sunny / hot / humid 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	KP5XR8UP

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST System**		
Casing Diameter:	1"	Screen Interval:	204' to 214'		
Total Depth:	214.00	Pump intake depth:	204'		
Depth to Water:	61.10				
Water Column:	NA	Total Volume Purged:	1600ml		
Gallons/Foot:	0.041	Pump on: 13:15 on 8/19/15	13:24	Off:	15:45
Gallons in Well:	0.41	PSI at 110	D/R at 15 sec / 1 min		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:45	22	75	0.4358841	1.1	-65	8.88	0.849	22.2	NA	9.36	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-8A(47-57)
Date:	8/25/16	Sampled By:	DW		
Sampling Time:	Dry	Recorded By:	DW		
Weather:	Sunny / hot / humid 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)
Serial #:	MiniRAE	Solinist	Horbia U-52

PURGING INFORMATION

Casing Material:	PVc	Purge Method:	**ZIST System**
Casing Diameter:	1"	Screen Interval:	47' to 57'
Total Depth:	57.00	Pump intake depth:	47'
Depth to Water:	46.45		
Water Column:	NA	Total Volume Purged:	none - dry
Gallons/Foot:	0.041	Pump on:	Off:
Gallons in Well:	0.41		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
		Well dry no sample taken									

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	NA
Color:	NA	Turbidity(qualitative):	NA
Odor:	NA	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-9A(25-35)
Date:	8/29/16	Sampled By:	Dw		
Sampling Time:	Dry	Recorded By:	DW		
Weather:	sunny/ hot/humid / 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)
Serial #:	MiniRAE	Solinist	Horbia U-52

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST**		
Casing Diameter:	1"	Screen Interval:	25' to 35'		
Total Depth:	35.00	Pump intake depth:	30		
Depth to Water:	24.71				
Water Column:	NA	Total Volume Purged:	None-Dry		
Gallons/Foot:	0.041	Pump on:	15:05	Off:	15:09
Gallons in Well:	0.41				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
			Well Dry no sample taken								

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	NA
Color:	NA	Turbidity(qualitative):	NA
Odor:	NA	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-9A(85-95)
Date:	8/29/16 & 08/30/16	Sampled By:	CC		
Sampling Time:	07:50 on 8/30/16	Recorded By:	CC		
Weather:	sunny / hot /humid/ 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)
Serial #:	MiniRAE	Solinist	Horbia U-52

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST system**
Casing Diameter:	1"	Screen Interval:	85' to 95'
Total Depth:	95.00	Pump intake depth:	90
Depth to Water:	56.14		
Water Column:	NA	Total Volume Purged:	800 ml
Gallons/Foot:	0.041	Pump on: 8/29/16 at 16:20	Off: 8/29/16 at 16:25
Gallons in Well:	0.41	8/30/16 at 07:50	8/30/16 at 12:05

PSI at 50 D/R 10 sec/ 1 min

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
16:20	pump on		0.00								
16:25	pump off			**well dry after 800 ml purged**							
16:25	16	50	0.21	4.80	-91.0	8.14	1.100	17.20		3.77	
	8/30/2016										
7:50	pump on	**Well sampled**									
8:20	pump off										

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-9(139-149)
Date:	8/29/16	Sampled By:	DW		
Sampling Time:	08/30/16 / 09:25	Recorded By:	DW		
Weather:	sunny/ hot/ humid/ 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)
Serial #:	MiniRAE	Solinist	Horbia U-52 SXLBUV2J

PURGING INFORMATION

Casing Material:	PVC	Purge Method:		**ZIST system**		
Casing Diameter:	1"	Screen Interval:		139' to 149'		
Total Depth:	149'	Pump intake depth:		144		
Depth to Water:	58.49					
Water Column:	NA	Total Volume Purged:		750 ml - dry		
Gallons/Foot:	0.041		8/29/2016	16:45	Off:	16:50
Gallons in Well:	0.41	PSI at 100 D/	8/30/2016	9:25		10:15
		D/R at 10 sec/ 1 min				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
	8/29/2016										
16:45	5	125		5.7	-80	8.29	1.09	16.36		4.05	
	8/30/2016										
9:25				**Well Sampled**							

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-9(106-216)
Date:	8/29/16	Sampled By:	DW		
Sampling Time:	08/30/2016 / 09:45	Recorded By:	DW		
Weather:	sunny / hot/ humid 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	SXLBUV2J

PURGING INFORMATION

Casing Material:	PVC	Purge Method:		**ZIST System**		
Casing Diameter:	1"	Screen Interval:		206' to 216'		
Total Depth:	216"	Pump intake depth:		211		
Depth to Water:	58.49					
Water Column:	NA	Total Volume Purged:		1300ml - dry		
Gallons/Foot:	0.041	Pump on:	8/29/2016	4:52:00 PM	Off:	17:20
Gallons in Well:	0.41	PSI at 100	8/30/2016	9:45		13:00

D/R at 10 sec/1 min

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
	8/29/2016										
16:52	pump on										
17:20	pump off		Well dry - purged 1600 ml								
	28			1.00	-67.0	9.07	1.180	20.67		2.81	
	8/30/2016										
9:45	pump on										
11:00	Pump off		Well went dry- sampled only 4 VOAs, 2 - 1,4 Dioxane, 1 TAL Metals, 1 Cyanide, 1 SVOC								

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-10A(51-61)
Date:	8/29/16	Sampled By:	DW		
Sampling Time:	12:20	Recorded By:	DW		
Weather:	sunny/ hot/humid / 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST System**		
Casing Diameter:	1"	Screen Interval:	51' to 61'		
Total Depth:	61.00	Pump intake depth:	56'		
Depth to Water:	36.05				
Water Column:	NA	Total Volume Purged:	1600ml		
Gallons/Foot:	0.041	Pump on:	11:34	Off:	13:50
Gallons in Well:	0.41	PSI at 30 D/R 10 sec/ 1 min			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
12:20	40	40	0.42	3.10	-122.0	7.94	0.561	20.39	NA	9.70	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-10A(75-85)
Date:	8/26/16	Sampled By:	DW		
Sampling Time:	14:15	Recorded By:	DW		
Weather:	sunny/hot/humid/ 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST System**		
Casing Diameter:	1"	Screen Interval:	75' to 85'		
Total Depth:	85.00	Pump intake depth:	80		
Depth to Water:	38.23				
Water Column:	NA	Total Volume Purged:	1600 ml		
Gallons/Foot:	0.041	Pump on:	13:55	Off:	14:30
Gallons in Well:	0.41	PSI at 60			
			D/R at 15 sec / 30 sec		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
14:15	20	80	0.42	3.5	-73.0	7.03	0.371	20.20	NA	8.86	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-10(120-130)
Date:	8/29/16	Sampled By:	DW		
Sampling Time:	13:50	Recorded By:	DW		
Weather:	sunny / hot / humid /85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	SXLBUV2J

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST**		
Casing Diameter:	1"	Screen Interval:	120' to 130'		
Total Depth:	130"	Pump intake depth:	125		
Depth to Water:	41.39				
Water Column:	NA	Total Volume Purged:	1600 ml		
Gallons/Foot:	0.041	Pump on:	13:50	Off:	15:00
Gallons in Well:	0.41	PSI at 80 D/R at 10 sec/1 min			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
14:26	36	45	0.43	2.90	-145.0	11.87	0.712	17.87	NA	2.54	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-10(185-195)
Date:	8/26/16	Sampled By:	DW		
Sampling Time:	13:05	Recorded By:	DW		
Weather:	Sunny / hot/ humid 85F	Replicate/Split:	DUP-5-08/26/16		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST System**		
Casing Diameter:	1"	Screen Interval:	185' to 195'		
Total Depth:	195'	Pump intake depth:	190		
Depth to Water:	40.29				
Water Column:	NA	Total Volume Purged:	1600 ml		
Gallons/Foot:	0.041	Pump on:	12:50	Off:	13:30
Gallons in Well:	0.41	PSI at 80 D/R 10 sec/ 1 min			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:06	16	100	0.42	0.0	-37.0	9.84	0.449	20.67	NA	9.46	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-11S(236-241)
Date:	8/23/16	Sampled By:	DW		
Sampling Time:	12:15	Recorded By:	DW		
Weather:	Sunny/ hot / humid / 90F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST system**		
Casing Diameter:	1"	Screen Interval:	236' to 241'		
Total Depth:	241.00	Pump intake depth:	238.5		
Depth to Water:	9.39				
Water Column:	NA	Total Volume Purged:	800 ml		
Gallons/Foot:	0.041	Pump on:	12:05	Off:	12:25
Gallons in Well:	0.41	PSI at 90 D/R at 10 sec/ 1 min			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
12:15	10	50	0.13	7.7	-37.0	6.99	0.164	25.99	NA	7.19	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	Slight	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-11D(262-267)
Date:	8/23/16	Sampled By:	DW		
Sampling Time:	9:05	Recorded By:	DW		
Weather:	Sunny/ hot / humid / 88F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST system**		
Casing Diameter:	1"	Screen Interval:	262' to 267'		
Total Depth:	267'	Pump intake depth:	262'		
Depth to Water:	9.93 (8/17/2015)				
Water Column:	NA	Total Volume Purged:	800 ml		
Gallons/Foot:	0.041	Pump on:	8:50	Off:	12:00
Gallons in Well:	0.41	PSI at 110 D/R at 10 sec/ 1 min			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:35	30	50	0.40	24.50	-70.0	11.92	2.300	15.04	NA	7.68	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	Slight	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	001	Well ID:	RW-12(55-65)
Date:	8/22/16	Sampled By:	DW		
Sampling Time:	16:10	Recorded By:	DW		
Weather:	Sunny/ hot /humid/ 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST system**		
Casing Diameter:	1"	Screen Interval:	55' to 65'		
Total Depth:	65.00	Pump intake depth:	60		
Depth to Water:	water at top of casing				
Water Column:	NA	Total Volume Purged:	1600 ml		
Gallons/Foot:	0.041	Pump on:	13:45	Off:	17:00
Gallons in Well:	0.41	PSI at 40 D/R at 15 sec/ 1 min.			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
16:10	15	50	0.20	0.0	-83.0	10.95	1.150	21.90	NA	8.85	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-12(130-140)
Date:	8/25/16	Sampled By:	DW		
Sampling Time:	12:25	Recorded By:	DW		
Weather:	sunny / hot / humid / 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST System**		
Casing Diameter:	1"	Screen Interval:	130' to 140'		
Total Depth:	140'	Pump intake depth:	135'		
Depth to Water:	Water at top of casing				
Water Column:	NA	Total Volume Purged:	1600 ml		
Gallons/Foot:	0.041	Pump on:	12:12	Off:	12:40
Gallons in Well:	0.41	PSI at 60 D/R at 10 sec/ 1 min			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
12:25	13	100	0.34	20.5	-210.0	11.14	0.752	18.08	NA	0.54	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-13(71-91)
Date:	8/25/16	Sampled By:	RJL		
Sampling Time:	9:45	Recorded By:	RJL		
Weather:	Sunny / 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow bladder pump**
Casing Diameter:	2"	Screen Interval:	71' to 91'
Total Depth:	93.40	Pump intake depth:	81
Depth to Water:	13.51		
Water Column:	79.89	Total Volume Purged:	1.27 gallons
Gallons/Foot:	0.160	Pump on:	9:05 Off: 10:00
Gallons in Well:	12.78		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:10	5	160	0.21	15.0	122.0	7.51	0.332	18.91	12.82	3.32	
9:15	10	160	0.42	34.70	124.0	6.95	0.447	13.53	13.75	1.80	
9:20	15	160	0.63	9.50	126.0	6.87	0.438	13.37	15.11	0.97	
9:25	20	160	0.85	8.60	129.0	6.82	0.435	13.24	16.02	0.87	
9:30	25	140	0.92	7.50	131.0	6.82	0.434	13.31	17.32	0.87	
9:35	30	140	1.11	6.50	131.0	6.84	0.434	3.40	17.94	0.82	
9:40	35	120	1.11	6.30	130.0	6.86	0.434	13.52	18.18	0.74	
9:45	40	120	1.27	6.10	131.0	6.87	0.434	13.57	18.26	0.73	
										0.71	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-13(100-120)
Date:	8/26/16	Sampled By:	DW		
Sampling Time:	7:45 8/26/2016	Recorded By:	DW		
Weather:	sunny / hot / humid / 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST System**	
Casing Diameter:	1"	Screen Interval:	100' to 120'	
Total Depth:	120.00	Pump intake depth:	110	
Depth to Water:	2.04			
Water Column:	NA	Total Volume Purged:	2400 ml	
Gallons/Foot:	0.041	Pump on:	7:40	09:45 (08/26/16)
Gallons in Well:	0.41	PSI at 50 D/R at 10 sec/ 1 min		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:40	48.00	40	0.51	25.90	-79.00	12.09	2.52	19.60		3.03	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-13(150-170)
Date:	8/26/16	Sampled By:	DW		
Sampling Time:	8:25	Recorded By:	DW		
Weather:	Sunny/ hot/ humid/ 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST system**		
Casing Diameter:	1"	Screen Interval:	150' to 170'		
Total Depth:	170.00	Pump intake depth:	160		
Depth to Water:	2.24				
Water Column:	NA	Total Volume Purged:	3200 ML		
Gallons/Foot:	0.041	Pump on:	8:00	Off:	8:35
Gallons in Well:	0.41	PSI at 70 D/R at 10 sec/ 1 min.			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
8:22	22	150	0.87	38.0	8.0	8	0.355	19.75	NA	9.40	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-14S(135-155)
Date:	8/29/16	Sampled By:	JK		
Sampling Time:	8:45	Recorded By:	JK		
Weather:	Sunny/ hot/ humid/ 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST system**		
Casing Diameter:	1"	Screen Interval:	135 to 155		
Total Depth:	155.00	Pump intake depth:	145		
Depth to Water:	11.51				
Water Column:	NA	Total Volume Purged:	3200 ML		
Gallons/Foot:	0.041	Pump on:	8:05	Off:	8:59
Gallons in Well:	0.41	PSI at 70 D/R at 10 sec/ 1 min.			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
8:45	22	150	0.87	38.0	8.0	8	0.355	19.75	NA	9.40	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW14D (175-185)
Date:	8/29/16	Sampled By:	JK		
Sampling Time:	9:40	Recorded By:	JK		
Weather:	Sunny/ hot/ humid/ 85F	Replicate/Split:	RW-14D(175-185)-MS- MSD		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	SXLBUV2J

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST system**		
Casing Diameter:	1"	Screen Interval:	175 to 185		
Total Depth:	195.00	Pump intake depth:	180		
Depth to Water:	0.50				
Water Column:	NA	Total Volume Purged:	1600 ML		
Gallons/Foot:	0.041	Pump on:	8:05	Off:	8:55
Gallons in Well:	0.41	PSI at 70 D/R at 10 sec/ 1 min.			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:40	11	125	0.36	8.4	-140.0	7.6	0.849	20.71	NA	8.40	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-15S(110-120)
Date:	8/24/16	Sampled By:	DW		
Sampling Time:	11:50	Recorded By:	DW		
Weather:	Sunny/ hot/ humid/ 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST system**		
Casing Diameter:	1"	Screen Interval:	110 to 120		
Total Depth:	120.00	Pump intake depth:	115		
Depth to Water:	2.18				
Water Column:	NA	Total Volume Purged:	1600 ML		
Gallons/Foot:	0.041	Pump on:	11:25	Off:	13:15
Gallons in Well:	0.41	PSI at 70 D/R at 10 sec/ 1 min.			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
11:45	16	100	0.42	11.0	-41.0	11.06	0.907	20.11	NA	8.61	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-15D(127-137)
Date:	8/24/16	Sampled By:	DW		
Sampling Time:	13:40	Recorded By:	DW		
Weather:	Sunny/ hot/ humid/ 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	9XKFYRWM

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**ZIST system**		
Casing Diameter:	1"	Screen Interval:	127 to 137		
Total Depth:	137.00	Pump intake depth:	132		
Depth to Water:	2.24				
Water Column:	NA	Total Volume Purged:	1600 ML		
Gallons/Foot:	0.041	Pump on:	13:20	Off:	13:50
Gallons in Well:	0.41	PSI at 70 D/R at 10 sec/ 1 min.			

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
13:25	16	100	0.42	2.7	-95.0	11.85	2.250	19.00	NA	2.26	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	RW-16
Date:	8/16/16	Sampled By:	DW		
Sampling Time:	15:45	Recorded By:	DW		
Weather:	Sunny/ hot/ humid/ 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	W46ALN65

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder**		
Casing Diameter:	1"	Screen Interval:	52-62		
Total Depth:	62.00	Pump intake depth:	58		
Depth to Water:	6.47				
Water Column:	55.53	Total Volume Purged:	1.85 gallons		
Gallons/Foot:	0.160	Pump on:	15:05	Off:	15:45
Gallons in Well:	8.88				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
15:10	0	200	0.00	154.0	-95.0	7.88	0.591	15.54	6.58	3.16	
15:15	5	200	0.26	90.50	13.0	6.32	0.588	13.69	6.60	0.92	
15:20	10	200	0.53	42.10	50.0	6.02	0.587	13.73	6.80	0.37	
15:25	15	200	0.79	21.50	61.0	6.00	0.588	13.12	6.58	0.15	
15:30	20	200	1.06	17.90	66.0	5.96	0.588	13.00	6.58	0.00	
15:35	25	200	1.32	18.00	67.0	5.95	0.588	12.90	6.58	0.00	
15:40	30	200	1.59	18.20	68.0	5.94	0.588	12.55	6.58	0.00	
15:45	35	200	1.85	18.30	67.0	5.95	0.588	12.80	6.58	0.00	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	SC-1
Date:	8/19/16	Sampled By:	RJL		
Sampling Time:	11:35	Recorded By:	RJL		
Weather:	Mostly Sunny, 85 F	Replicate/Split:			

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	RT7P59W4

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow Bladder pump**		
Casing Diameter:	2"	Screen Interval:	99' to 109' (angled)		
Total Depth:	67.77	Pump intake depth:	105		
Depth to Water:	15.06				
Water Column:	52.71	Total Volume Purged:	3.09 gallons		
Gallons/Foot:	0.160	Pump on:	10:50	Off:	11:50
Gallons in Well:	8.43				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:50	0	260	0.00	200.0	-100.0	7.07	0.438	27.23	15.07	7.90	
10:55	5	260	0.34	28.60	-51.0	6.36	0.487	20.16	15.07	4.34	
11:00	10	260	0.69	23.00	-38.0	6.22	0.480	17.28	15.08	1.88	
11:05	15	260	1.03	14.90	-27.0	6.08	0.472	16.47	15.08	0.17	
11:10	20	260	1.37	9.80	-17.0	5.96	0.467	15.90	15.08	0.17	
11:15	25	260	1.72	8.90	-15.0	5.94	0.465	15.21	15.08	0.21	
11:20	30	260	2.06	13.60	-14.0	5.88	0.465	14.97	15.08	0.00	
11:25	35	260	2.40	12.40	-13.0	5.90	0.467	14.80	15.08	0.00	
11:30	40	260	2.75	13.10	-14.0	5.88	0.465	15.29	15.08	0.00	
11:35	45	260	3.09	13.40	-15.0	5.87	0.464	14.92	15.08	0.00	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	SC-2
Date:	8/16/16	Sampled By:	RJL		
Sampling Time:	15:00	Recorded By:	RJL		
Weather:	sunny / 85F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	RT7P59W4

PURGING INFORMATION

Casing Material:	PVC	Purge Method:	**Low Flow bladder Pump**
Casing Diameter:	2"	Screen Interval:	47' to 67'
Total Depth:	69.75	Pump intake depth:	66'
Depth to Water:	57.60		
Water Column:	12.15	Total Volume Purged:	2.85 gallons
Gallons/Foot:	0.160	Pump on:	14:15 Off: 15:25
Gallons in Well:	1.94		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
14:15	0	240	0.00	25.8	326.0	5.65	0.026	29.11	58.11	5.66	
14:20	5	240	0.32	28.00	350.0	6.47	0.460	16.40	58.23	0.71	
14:25	10	240	0.63	31.40	356.0	6.31	0.464	15.77	58.31	0.40	
14:30	15	240	0.95	79.10	366.0	6.09	0.479	15.40	58.38	0.54	
14:35	20	240	1.27	74.90	372.0	5.98	0.485	15.16	58.44	0.44	
14:40	25	240	1.59	73.20	374.0	5.93	0.483	15.19	58.48	0.39	
14:45	30	240	1.90	60.00	375.0	5.90	0.487	15.06	58.51	0.36	
14:50	35	240	2.22	43.30	375.0	5.90	0.491	14.88	58.54	0.31	
14:55	40	240	2.54	44.20	374.0	5.90	0.493	14.92	58.56	0.30	
15:00	45	240	2.85	41.80	374.0	5.91	0.492	14.85	58.58	0.28	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	Cannon Mine Shaft-50
Date:	8/22/16	Sampled By:	JG		
Sampling Time:	10:30	Recorded By:	JG		
Weather:	sunny / 75F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	KP5XP8NP

PURGING INFORMATION

Casing Material:	steel	Purge Method:	**Grundfos 2" Low Flow**
Casing Diameter:	2"	Screen Interval:	
Total Depth:	275.00	Pump intake depth:	50
Depth to Water:	8.11		
Water Column:	265	Total Volume Purged:	3.96 gallons
Gallons/Foot:	NA	Pump on:	10:00 Off: 10:45
Gallons in Well:	NA		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
10:05	5	500	0.66	0.1	-139.0	6.99	0.677	16.89	8.21	0.17	
10:10	10	500	1.32	0.00	-116.0	6.80	0.679	16.83	8.21	0.11	
10:15	15	500	1.98	0.00	-107.0	6.73	0.681	16.78	8.21	0.07	
10:20	20	500	2.64	0.00	-103.0	6.71	0.682	16.74	8.21	0.05	
10:25	25	500	3.30	0.00	-104.0	6.76	0.682	16.72	8.21	0.04	
10:30	30	500	3.96	0.00	-103.0	6.75	0.682	16.69	8.21	0.03	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	Cannon Mine Shaft-100
Date:	8/22/16	Sampled By:	JG		
Sampling Time:	11:40	Recorded By:	JG		
Weather:	sunny/ 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	KP5XP8NO

PURGING INFORMATION

Casing Material:	steel	Purge Method:	**Grundfos 2" Low Flow**
Casing Diameter:	2"	Screen Interval:	
Total Depth:	275.00	Pump intake depth:	100
Depth to Water:	8.11		
Water Column:	265	Total Volume Purged:	4.16 gallons
Gallons/Foot:	NA	Pump on:	10:55 Off: 11:55
Gallons in Well:	NA		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
11:00	5	350	0.46	39.3	-293.0	7.95	0.780	16.99	8.21	2.01	
11:05	10	350	0.92	53.20	-289.0	7.95	0.776	18.11	8.21	1.72	
11:10	15	350	1.39	49.80	-285.0	7.94	0.775	17.93	8.21	1.64	
11:15	20	350	1.85	35.30	-278.0	7.91	0.776	17.87	8.21	1.37	
11:20	25	350	2.31	36.30	-272.0	7.88	0.767	17.79	8.21	1.24	
11:25	30	350	2.77	28.10	-261.0	7.83	0.760	17.93	8.21	1.08	
11:30	35	350	3.24	16.30	-232.0	7.77	0.744	17.09	8.21	0.81	
11:35	40	350	3.70	15.50	-229.0	7.66	0.737	16.98	8.21	0.76	
11:40	45	350	4.16	15.10	-235.0	7.72	0.732	16.95	8.21	0.74	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	Cannon Mine Shaft-160
Date:	8/22/16	Sampled By:	JG		
Sampling Time:	13:20	Recorded By:	JG		
Weather:	sunny/ 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	KP5XP8NP

PURGING INFORMATION

Casing Material:	steel	Purge Method:	**Grundfos 2" Low Flow**		
Casing Diameter:	2"	Screen Interval:			
Total Depth:	275.00	Pump intake depth:	160		
Depth to Water:	8.11				
Water Column:	265	Total Volume Purged:	5.35 gallons		
Gallons/Foot:	NA	Pump on:	12:35	Off:	13:35
Gallons in Well:	NA				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
12:40	5	450	0.59	21.3	-275.0	7.76	0.814	16.81	8.21	0.07	
12:45	10	450	1.19	36.10	-272.0	7.78	0.814	18.05	8.21	0.07	
12:50	15	450	1.78	52.40	-275.0	7.81	0.806	17.91	8.21	0.07	
12:55	20	450	2.38	43.20	-271.0	7.80	0.804	17.93	8.21	0.07	
13:00	25	450	2.97	38.00	-267.0	7.79	0.801	17.75	8.21	0.06	
13:05	30	450	3.57	35.20	-231.0	7.76	0.798	17.81	8.21	0.06	
13:10	35	450	4.16	30.00	-243.0	7.67	0.791	17.83	8.21	0.05	
13:15	40	450	4.76	29.90	-240.0	7.65	0.789	17.87	8.21	0.05	
13:20	45	450	5.35	29.30	-237.0	7.61	0.785	17.91	8.21	0.05	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	Cannon Mine Shaft-275
Date:	8/22/16	Sampled By:	JG		
Sampling Time:	14:50	Recorded By:	JG		
Weather:	Sunny/ 80F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	KP5XP8NP

PURGING INFORMATION

Casing Material:	steel	Purge Method:	**Grundfos 2" Low Flow**
Casing Diameter:	2"	Screen Interval:	
Total Depth:	275.00	Pump intake depth:	275
Depth to Water:	8.11		
Water Column:	265	Total Volume Purged:	4.62 gallons
Gallons/Foot:	NA	Pump on:	14:00 Off: 15:05
Gallons in Well:	NA		

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
14:05	5	350	0.46	195.0	-199.0	7.41	0.849	19.50	8.21	0.10	
14:10	10	350	0.92	119.00	-156.0	7.21	0.863	18.74	8.21	0.12	
14:15	15	350	1.39	41.30	-107.0	6.74	0.871	16.94	8.21	0.11	
14:20	20	350	1.85	49.70	-112.0	6.74	0.836	16.27	8.21	0.03	
14:25	25	350	2.31	65.60	-114.0	6.73	0.816	16.40	8.21	0.02	
14:30	30	350	2.77	38.90	-116.0	6.74	0.819	17.07	8.21	0.03	
14:35	35	350	3.24	42.60	-116.0	6.74	0.829	17.31	8.21	0.03	
14:40	40	350	3.70	43.80	-117.0	6.74	0.832	17.31	8.21	0.04	
14:45	45	350	4.16	44.10	-118.0	6.75	0.834	17.25	8.21	0.04	
14:50	50	350	4.62	44.60	-117.0	6.74	0.838	17.19	8.21	0.04	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	Peters Mine Shaft-50
Date:	8/23/16	Sampled By:	JG		
Sampling Time:	9:10	Recorded By:	JG		
Weather:	Sunny / 65F	Replicate/Split:	None		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE 013626	Solinist	Horbia U-52	KP5XP8NP

PURGING INFORMATION

Casing Material:	Steel	Purge Method:	**Grundfos 2" Low Flow**		
Casing Diameter:	2"	Screen Interval:			
Total Depth:	230.00	Pump intake depth:	50		
Depth to Water:	8.79				
Water Column:	221.21	Total Volume Purged:	4.62		
Gallons/Foot:	NA	Pump on:	8:35	Off:	9:25
Gallons in Well:	NA				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
8:40	5	500	0.66	0.0	-108.0	7.32	0.067	14.98	8.86	3.31	
8:45	10	500	1.32	0.00	-35.0	7.02	0.066	14.99	8.86	3.60	
8:50	15	500	1.98	0.00	17.0	6.71	0.065	14.99	8.86	3.74	
8:55	20	500	2.64	0.00	42.0	6.53	0.065	14.99	8.86	3.81	
9:00	25	500	3.30	0.00	54.0	6.46	0.064	15.00	8.86	3.83	
9:05	30	500	3.96	0.00	57.0	6.41	0.064	15.01	8.86	3.86	
9:10	35	500	4.62	0.00	58.0	6.38	0.064	15.02	8.86	3.85	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	Peters Mine Shaft-180
Date:	8/23/16	Sampled By:	JG		
Sampling Time:	10:25	Recorded By:	JG		
Weather:	Sunny / 70F	Replicate/Split:	1,4 Dioxane		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	KP5XP8NP

PURGING INFORMATION

Casing Material:	Steel	Purge Method:	**Grundfos 2" Low Flow**		
Casing Diameter:	2"	Screen Interval:			
Total Depth:	230.00	Pump intake depth:	180		
Depth to Water:	8.79				
Water Column:	221.21	Total Volume Purged:	4.62 gallons		
Gallons/Foot:	NA	Pump on:	9:35	Off:	10:45
Gallons in Well:	NA				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
9:40	5	350	0.46	57.9	-147.0	6.25	0.568	12.65	8.86	0.07	
9:45	10	350	0.92	164.00	-121.0	6.25	0.559	13.91	8.86	0.06	
9:50	15	350	1.39	54.50	-120.0	6.27	0.524	13.95	8.86	0.05	
9:55	20	350	1.85	79.80	-118.0	6.26	0.562	13.66	8.86	0.01	
10:00	25	350	2.31	81.00	-118.0	6.26	0.562	13.42	8.86	0.02	
10:05	30	350	2.77	39.40	-120.0	6.26	0.526	13.63	8.86	0.01	
10:10	35	350	3.24	42.60	-120.0	6.26	0.524	13.57	8.86	0.02	
10:15	40	350	3.70	44.40	-120.0	6.26	0.518	13.54	8.86	0.00	
10:20	45	350	4.16	45.30	-122.0	6.26	0.522	13.52	8.86	0.00	
10:25	50	350	4.62	47.10	-125.0	6.26	0.518	13.49	8.86	0.00	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Clear
Odor:	None	Other (OVA, HNU,etc.):	NA

Cornerstone
Groundwater Sampling Form

Project Number:	140802	Task:	015	Well ID:	Peters Mine Shaft-230
Date:	8/23/16	Sampled By:	JG		
Sampling Time:	13:25	Recorded By:	JG		
Weather:	Sunny / 80F	Replicate/Split:	1,4 Dioxane		

INSTRUMENT IDENTIFICATION

	PID	Water-Level Meter	Water Quality Meter(s)	
Serial #:	MiniRAE	Solinist	Horbia U-52	KP5XP8NP

PURGING INFORMATION

Casing Material:	Steel	Purge Method:	**Grundfos 2" Low Flow**		
Casing Diameter:	2"	Screen Interval:			
Total Depth:	230.00	Pump intake depth:	230		
Depth to Water:	8.79				
Water Column:	221.21	Total Volume Purged:	5.94 gallons		
Gallons/Foot:	NA	Pump on:	12:40	Off:	13:50
Gallons in Well:	NA				

FIELD PARAMETERS

Time	Minutes Elapsed	Rate (mL/m)	Gallons Purged	Turbidity (NTUs)	REDOX (mV)	pH (SI Units)	Conductivity (mmhos/cm)	Temp (ºC)	Depth to Water	Diss. Oxygen	Comments
12:45	5	500	0.66	256.0	-93.0	6.29	0.939	12.87	8.86	0.00	
12:50	10	500	1.32	375.00	-100.0	6.29	0.973	12.49	8.86	0.00	
12:55	15	500	1.98	257.00	-92.0	6.29	1.000	12.05	8.86	0.00	
13:00	20	500	2.64	192.00	-100.0	6.29	1.000	12.01	8.86	0.00	
13:05	25	500	3.30	157.00	-103.0	6.29	1.000	11.97	8.86	0.00	
13:10	30	500	3.96	98.40	-108.0	6.30	1.020	11.92	8.86	0.00	
13:15	35	500	4.62	75.80	-109.0	6.30	1.010	11.93	8.86	0.00	
13:20	40	500	5.28	70.40	-112.0	6.30	1.020	11.88	8.86	0.00	
13:25	45	500	5.94	68.20	-113.0	6.30	1.020	11.89	8.86	0.00	

OBSERVATIONS DURING SAMPLING

Well Condition:	Good	Purge Water Disposal:	Contained
Color:	Clear	Turbidity(qualitative):	Effervescent
Odor:	None	Other (OVA, HNU,etc.):	NA

ATTACHMENT C

LABORATORY REPORTS (ON COMPACT DISC)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-118778-1
Client Project/Site: FORD Ringwood Mines E203361

For:
Cornerstone Environmental Group, LLC
100 Crystal Run Road
Suite 101
Middletown, New York 10941

Attn: Tim Roeper

Maegen Pane

Authorized for release by:
9/1/2016 3:31:09 PM
Maegen Pane, Project Management Assistant I
(732)549-3900
maegen.pane@testamericainc.com

Designee for

Marie Meidhof, Project Manager II
(732)549-3900
marie.meidhof@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
F1	MS and/or MSD Recovery is outside acceptance limits.
X	Surrogate is outside control limits

HPLC/IC

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: TestAmerica Edison

Client: Cornerstone Environmental Group, LLC

Project Location: FORD Ringwood Mines E203361

Project Number: 460-118778-1

Laboratory Sample ID(s): 460-118778-1, 460-118778-2, 460-118778-3, 460-118778-4, 460-118778-5, 460-118778-6, 460-118778-7, 460-118778-8, 460-118778-9, 460-118778-10, 460-118778-11, 460-118778-12, 460-118778-13, 460-118778-14, 460-118778-15

Sampling Date(s): 08/16/2016

List DKQP Methods Used: 8260C, 8260C SIM, 8270D, 8270D SIM, 8082A, 6020A, 7470A, 9012B

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	☑Yes ☐No
1A	Were the method specified handling, preservation, and holding time requirements met?	☐Yes ☐No ☑ See case narrative
1B	*EPH Method:* Was the EPH method conducted without significant modifications? (see Section 11.3 of respective DKQ methods)	☐Yes ☐No ☑N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody documents(s)?	☐Yes ☐No ☑ See case narrative
3	Were samples received at an appropriate temperature (4±2° C)?	☑Yes ☐No ☐N/A
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	☐Yes ☑No
5	a) Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	☐Yes ☐No ☑ See case narrative
	b) Were these reporting limits met?	☐Yes ☐No ☐N/A ☑ See case narrative
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	☑Yes ☐No
7	Are project-specific matrix spike and/or laboratory duplicates included in this data set?	☑Yes ☐No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information should be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet requirements for "Data of Known Quality."

Job ID: 460-118778-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: Cornerstone Environmental Group, LLC

Project: FORD Ringwood Mines E203361

Report Number: 460-118778-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 8/17/2016 3:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 0.2º C, 0.4º C, 0.8º C, 0.9º C and 3.0º C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): OB-13-081616 (460-118778-10). Quantity is 13 on COC, but 12 containers were received.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS DKQP AQUEOUS

Samples TB-01-081616 (460-118778-1), FB-01-081616 (460-118778-2), OB-17-081616 (460-118778-3), OB-18-081616 (460-118778-4), OB-10-081616 (460-118778-5), OB-16-081616 (460-118778-6), OB-28-081616 (460-118778-7), Dup-01-081616 (460-118778-8), OB-29-081616 (460-118778-9), OB-13-081616 (460-118778-10), OB-14A-081616 (460-118778-11), OB-14B-081616 (460-118778-12), OB-24-081616 (460-118778-13), RW-16-081616 (460-118778-14) and OB-3-081616 (460-118778-15) were analyzed for Volatile organic compounds DKQP Aqueous in accordance with EPA SW-846 Methods 8260C DKQP. The samples were analyzed on 08/23/2016 and 08/24/2016.

The continuing calibration verification (CCV) associated with batch 460-386373 recovered above the upper control limit for Bromomethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No difficulties were encountered during the Volatile organic compounds DKQP Aqueous analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) DKQP

Job ID: 460-118778-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

Samples FB-01-081616 (460-118778-2), OB-17-081616 (460-118778-3), OB-18-081616 (460-118778-4), OB-10-081616 (460-118778-5), OB-16-081616 (460-118778-6), OB-28-081616 (460-118778-7), Dup-01-081616 (460-118778-8), OB-29-081616 (460-118778-9), OB-13-081616 (460-118778-10), OB-14A-081616 (460-118778-11), OB-14B-081616 (460-118778-12), OB-24-081616 (460-118778-13), RW-16-081616 (460-118778-14) and OB-3-081616 (460-118778-15) were analyzed for Semivolatile organic compounds (GC/MS) DKQP in accordance with EPA SW-846 Method 8270D DKQP. The samples were prepared on 08/21/2016 and analyzed on 08/27/2016 and 08/28/2016.

Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: FB-01-081616 (460-118778-2), OB-17-081616 (460-118778-3), OB-18-081616 (460-118778-4), OB-10-081616 (460-118778-5), OB-16-081616 (460-118778-6), OB-28-081616 (460-118778-7), Dup-01-081616 (460-118778-8), OB-29-081616 (460-118778-9), OB-14A-081616 (460-118778-11), OB-14B-081616 (460-118778-12), OB-24-081616 (460-118778-13) and RW-16-081616 (460-118778-14). These results have been reported and qualified.

Surrogate recovery for the following sample was outside the upper control limit: (MB 460-385957/1-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: OB-3-081616 (460-118778-15). These results have been reported and qualified.
2-Methylphenol failed the recovery criteria low for LCS 460-385957/2-A. Refer to the QC report for details.

Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: OB-13-081616 (460-118778-10), OB-13-081616 (460-118778-10[MS]) and OB-13-081616 (460-118778-10[MSD]). These results have been reported and qualified.

The following laboratory control sample (LCS) associated with batch 460-385957 contained one acid/base surrogate outside acceptance limits:(LCS 460-385957/2-A) and (LCS 460-385957/3-A). The laboratory's SOP allows one acid and/or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

2-Methylphenol failed the recovery criteria low for the MS of sample OB-13-081616MS (460-118778-10) in batch 460-387153.

2-Methylphenol failed the recovery criteria low for the MSD of sample OB-13-081616MSD (460-118778-10) in batch 460-387153.
Indeno[1,2,3-cd]pyrene failed the recovery criteria high.

The continuing calibration verification (CCV) analyzed in 460-387153 was outside the method criteria for the following analyte(s): 4-Nitrophenol, 2,4,6-Tribromophenol (Surr) and Pentachlorophenol. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-387247 was outside the method criteria for the following analyte(s): Phenol, 2-Chlorophenol and 2-Fluorophenol (Surr). As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)

Samples FB-01-081616 (460-118778-2), OB-17-081616 (460-118778-3), OB-18-081616 (460-118778-4), OB-10-081616 (460-118778-5), OB-16-081616 (460-118778-6), OB-28-081616 (460-118778-7), Dup-01-081616 (460-118778-8), OB-29-081616 (460-118778-9), OB-13-081616 (460-118778-10), OB-14A-081616 (460-118778-11), OB-14B-081616 (460-118778-12), OB-24-081616 (460-118778-13), RW-16-081616 (460-118778-14) and OB-3-081616 (460-118778-15) were analyzed for semivolatile organic compounds - Selected Ion

Job ID: 460-118778-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

Mode (SIM) in accordance with EPA Method 8270C SIM DKQP. The samples were prepared on 08/21/2016 and analyzed on 08/24/2016, 08/26/2016 and 08/28/2016.

No difficulties were encountered during the semivolatile organic compounds - Selected Ion Mode (SIM) analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS) DKQP

Samples TB-01-081616 (460-118778-1), FB-01-081616 (460-118778-2), OB-17-081616 (460-118778-3), OB-18-081616 (460-118778-4), OB-10-081616 (460-118778-5), OB-16-081616 (460-118778-6), OB-28-081616 (460-118778-7), Dup-01-081616 (460-118778-8), OB-29-081616 (460-118778-9), OB-13-081616 (460-118778-10), OB-14A-081616 (460-118778-11), OB-14B-081616 (460-118778-12), OB-24-081616 (460-118778-13), RW-16-081616 (460-118778-14) and OB-3-081616 (460-118778-15) were analyzed for volatile organic compounds (GC-MS) DKQP in accordance with EPA SW-846 Method 8260C SIM DKQP. The samples were analyzed on 08/23/2016 and 08/24/2016.

No difficulties were encountered during the volatile organic compounds (GC-MS) DKQP analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS) DKQP

Samples FB-01-081616 (460-118778-2), OB-17-081616 (460-118778-3), OB-18-081616 (460-118778-4), OB-10-081616 (460-118778-5), OB-16-081616 (460-118778-6), OB-28-081616 (460-118778-7), Dup-01-081616 (460-118778-8), OB-29-081616 (460-118778-9), OB-13-081616 (460-118778-10), OB-14A-081616 (460-118778-11), OB-14B-081616 (460-118778-12), OB-24-081616 (460-118778-13), RW-16-081616 (460-118778-14) and OB-3-081616 (460-118778-15) were analyzed for polychlorinated biphenyls (PCBs) DKQP in accordance with EPA SW-846 Method 8082A DKQP. The samples were prepared on 08/22/2016 and analyzed on 08/23/2016.

The Decachlorobiphenyl surrogate recovery for the following MSD was outside acceptance limits (high biased) on the confirmation column due to matrix interference: OB-13-081616 (460-118778-10[MSD]). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

PCB-1260 failed the recovery criteria high for the MS of sample OB-13-081616MS (460-118778-10) in batch 460-386237.

PCB-1016 and PCB-1260 failed the recovery criteria high for the MSD of sample OB-13-081616MSD (460-118778-10) in batch 460-386237.

Refer to the QC report for details.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

METALS DKQP

Samples FB-01-081616 (460-118778-2), OB-17-081616 (460-118778-3), OB-18-081616 (460-118778-4), OB-10-081616 (460-118778-5), OB-16-081616 (460-118778-6), OB-28-081616 (460-118778-7), Dup-01-081616 (460-118778-8), OB-29-081616 (460-118778-9), OB-13-081616 (460-118778-10), OB-14A-081616 (460-118778-11), OB-14B-081616 (460-118778-12), OB-24-081616 (460-118778-13), RW-16-081616 (460-118778-14) and OB-3-081616 (460-118778-15) were analyzed for Metals DKQP in accordance with EPA SW-846 Method 6020A DKQP. The samples were prepared on 08/25/2016 and analyzed on 08/25/2016 and 08/26/2016.

Calcium failed the recovery criteria high for the MS of sample OB-13-081616MS (460-118778-10) in batch 460-386872.

Refer to the QC report for details.

Samples FB-01-081616 (460-118778-2)[2X], OB-17-081616 (460-118778-3)[2X], OB-18-081616 (460-118778-4)[2X], OB-10-081616 (460-118778-5)[2X], OB-16-081616 (460-118778-6)[2X], OB-28-081616 (460-118778-7)[2X], Dup-01-081616 (460-118778-8)[2X], OB-29-081616 (460-118778-9)[2X], OB-13-081616 (460-118778-10)[2X], OB-14A-081616 (460-118778-11)[2X], OB-14B-081616

Job ID: 460-118778-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

(460-118778-12)[2X], OB-24-081616 (460-118778-13)[2X], RW-16-081616 (460-118778-14)[2X] and OB-3-081616 (460-118778-15)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Metals DKQP analysis.

All other quality control parameters were within the acceptance limits.

METALS

Samples FB-01-081616 (460-118778-2), OB-17-081616 (460-118778-3), OB-18-081616 (460-118778-4), OB-10-081616 (460-118778-5), OB-16-081616 (460-118778-6), OB-28-081616 (460-118778-7), Dup-01-081616 (460-118778-8), OB-29-081616 (460-118778-9), OB-13-081616 (460-118778-10), OB-14A-081616 (460-118778-11), OB-14B-081616 (460-118778-12), OB-24-081616 (460-118778-13), RW-16-081616 (460-118778-14) and OB-3-081616 (460-118778-15) were analyzed for Metals in accordance with EPA SW-846 Method 6020A DKQP. The samples were prepared on 08/26/2016 and analyzed on 08/26/2016 and 08/27/2016.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

MERCURY DKQP

Samples FB-01-081616 (460-118778-2), OB-17-081616 (460-118778-3), OB-18-081616 (460-118778-4), OB-10-081616 (460-118778-5), OB-16-081616 (460-118778-6), OB-28-081616 (460-118778-7), Dup-01-081616 (460-118778-8), OB-29-081616 (460-118778-9), OB-13-081616 (460-118778-10), OB-14A-081616 (460-118778-11), OB-14B-081616 (460-118778-12), OB-24-081616 (460-118778-13), RW-16-081616 (460-118778-14) and OB-3-081616 (460-118778-15) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 08/24/2016.

No difficulties were encountered during the dissolved Hg analysis.

All quality control parameters were within the acceptance limits.

MERCURY DKQP

Samples FB-01-081616 (460-118778-2), OB-17-081616 (460-118778-3), OB-18-081616 (460-118778-4), OB-10-081616 (460-118778-5), OB-16-081616 (460-118778-6), OB-28-081616 (460-118778-7), Dup-01-081616 (460-118778-8), OB-29-081616 (460-118778-9), OB-13-081616 (460-118778-10), OB-14A-081616 (460-118778-11), OB-14B-081616 (460-118778-12), OB-24-081616 (460-118778-13), RW-16-081616 (460-118778-14) and OB-3-081616 (460-118778-15) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 08/23/2016.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

ANIONS

Samples FB-01-081616 (460-118778-2), OB-17-081616 (460-118778-3), OB-18-081616 (460-118778-4), OB-10-081616 (460-118778-5), OB-16-081616 (460-118778-6), OB-28-081616 (460-118778-7), Dup-01-081616 (460-118778-8), OB-29-081616 (460-118778-9), OB-13-081616 (460-118778-10), OB-14A-081616 (460-118778-11), OB-14B-081616 (460-118778-12), OB-24-081616 (460-118778-13), RW-16-081616 (460-118778-14) and OB-3-081616 (460-118778-15) were analyzed for anions in accordance with EPA SW-846 Method 9056. The samples were analyzed on 08/19/2016, 08/20/2016 and 08/24/2016.

Sulfate failed the recovery criteria high for the MS of sample OB-17-081616MS (460-118778-3) in batch 460-385736.

Chloride and Sulfate failed the recovery criteria high for the MSD of sample OB-17-081616MSD (460-118778-3) in batch 460-385736.

Refer to the QC report for details.

Samples OB-17-081616 (460-118778-3)[5X], OB-18-081616 (460-118778-4)[2X], OB-16-081616 (460-118778-6)[20X], OB-28-081616 (460-118778-7)[100X], Dup-01-081616 (460-118778-8)[2X], OB-14A-081616 (460-118778-11)[5X], OB-14B-081616 (460-118778-12)

Job ID: 460-118778-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

[20X], OB-24-081616 (460-118778-13)[50X] and RW-16-081616 (460-118778-14)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following sample was diluted to bring the concentration of target analytes within the calibration range: OB-17-081616 (460-118778-3) at 5.0. Elevated reporting limits (RLs) are provided.

The following samples was diluted to bring the concentration of target analytes within the calibration range: OB-16-081616 (460-118778-6), OB-14B-081616 (460-118778-12) and RW-16-081616 (460-118778-14) at 20.0, 20.0 and 20.0. Elevated reporting limits (RLs) are provided.

The following sample was diluted to bring the concentration of target analytes within the calibration range: OB-28-081616 (460-118778-7) at 100.0. Elevated reporting limits (RLs) are provided.

The following sample was diluted to bring the concentration of target analytes within the calibration range: OB-24-081616 (460-118778-13) at 50.0. Elevated reporting limits (RLs) are provided.

The following samples was diluted to bring the concentration of target analytes within the calibration range: (460-118778-H-3 MS) and (460-118778-H-3 MSD) at 5.0 and 5.0. Elevated reporting limits (RLs) are provided.

The following samples was diluted to bring the concentration of target analytes within the calibration range: OB-18-081616 (460-118778-4) and Dup-01-081616 (460-118778-8) at 2.0 and 2.0. Elevated reporting limits (RLs) are provided.

The following sample was diluted to bring the concentration of target analytes within the calibration range: OB-14A-081616 (460-118778-11) at 5.0. Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the anions analysis.

All other quality control parameters were within the acceptance limits.

ALKALINITY

Samples FB-01-081616 (460-118778-2), OB-17-081616 (460-118778-3), OB-18-081616 (460-118778-4), OB-10-081616 (460-118778-5), OB-16-081616 (460-118778-6), OB-28-081616 (460-118778-7), Dup-01-081616 (460-118778-8), OB-29-081616 (460-118778-9), OB-13-081616 (460-118778-10), OB-14A-081616 (460-118778-11), OB-14B-081616 (460-118778-12), OB-24-081616 (460-118778-13), RW-16-081616 (460-118778-14) and OB-3-081616 (460-118778-15) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 08/18/2016 and 08/22/2016.

No difficulties were encountered during the alkalinity analysis.

All quality control parameters were within the acceptance limits.

CYANIDE

Samples FB-01-081616 (460-118778-2), OB-17-081616 (460-118778-3), OB-18-081616 (460-118778-4), OB-10-081616 (460-118778-5), OB-16-081616 (460-118778-6), OB-28-081616 (460-118778-7), Dup-01-081616 (460-118778-8), OB-29-081616 (460-118778-9), OB-13-081616 (460-118778-10), OB-14A-081616 (460-118778-11), OB-14B-081616 (460-118778-12), OB-24-081616 (460-118778-13), RW-16-081616 (460-118778-14) and OB-3-081616 (460-118778-15) were analyzed for cyanide in accordance with EPA SW-846 Method 9012B (DKQP). The samples were prepared on 08/26/2016 and 08/30/2016 and analyzed on 08/27/2016 and 08/30/2016.

No difficulties were encountered during the cyanide analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: TB-01-081616 — Lab Sample ID: 460-118778-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	4.1		1.0	0.21	ug/L	1		8260C	Total/NA

Client Sample ID: FB-01-081616 — Lab Sample ID: 460-118778-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.20		0.12	0.030	mg/L	1		9056A	Total/NA

Client Sample ID: OB-17-081616 — Lab Sample ID: 460-118778-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.70	J	1.0	0.24	ug/L	1		8260C	Total/NA
Chloride - DL	12.9	F1 D	0.60	0.15	mg/L	5		9056A	Total/NA
Sulfate - DL	41.9	F1 D	3.00	0.53	mg/L	5		9056A	Total/NA
Barium	11.4		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	327		8.0	3.0	ug/L	2		6020A	Total/NA
Sodium	16200		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	32200		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1910		200	74.8	ug/L	2		6020A	Total/NA
Calcium	92000		200	69.5	ug/L	2		6020A	Total/NA
Iron	1340		120	49.1	ug/L	2		6020A	Total/NA
Barium	10.5		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	309		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	15100		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	30700		200	68.4	ug/L	2		6020A	Dissolved
Potassium	2100		200	74.8	ug/L	2		6020A	Dissolved
Calcium	92000		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	333		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	333		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-18-081616 — Lab Sample ID: 460-118778-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	9.98		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	1.61	D	0.24	0.060	mg/L	2		9056A	Total/NA
Barium	6.8		4.0	1.5	ug/L	2		6020A	Total/NA
Aluminum	25.4	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	6010		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	8860		200	68.4	ug/L	2		6020A	Total/NA
Potassium	400		200	74.8	ug/L	2		6020A	Total/NA
Calcium	39500		200	69.5	ug/L	2		6020A	Total/NA
Barium	7.0		4.0	1.5	ug/L	2		6020A	Dissolved
Sodium	5000		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	7860		200	68.4	ug/L	2		6020A	Dissolved
Potassium	374		200	74.8	ug/L	2		6020A	Dissolved
Calcium	38000		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	132		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	132		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-10-081616 — Lab Sample ID: 460-118778-5

This Detection Summary does not include radiochemical test results.

Client Sample ID: OB-10-081616 (Continued) — Lab Sample ID: 460-118778-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.41		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	5.63		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	6.9		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	26.2		8.0	3.0	ug/L	2		6020A	Total/NA
Sodium	3860		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	4250		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1300		200	74.8	ug/L	2		6020A	Total/NA
Calcium	14000		200	69.5	ug/L	2		6020A	Total/NA
Iron	187		120	49.1	ug/L	2		6020A	Total/NA
Barium	6.4		4.0	1.5	ug/L	2		6020A	Dissolved
Sodium	3310		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	3840		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1260		200	74.8	ug/L	2		6020A	Dissolved
Calcium	13700		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	52.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	52.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-16-081616 — Lab Sample ID: 460-118778-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	4.61		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	69.1	D	2.40	0.60	mg/L	20		9056A	Total/NA
Arsenic	7.9		2.0	0.71	ug/L	2		6020A	Total/NA
Barium	115		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	1.8	J	4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	3690		8.0	3.0	ug/L	2		6020A	Total/NA
Sodium	42200		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	20400		200	68.4	ug/L	2		6020A	Total/NA
Potassium	10800		200	74.8	ug/L	2		6020A	Total/NA
Calcium	143000		200	69.5	ug/L	2		6020A	Total/NA
Iron	18000		120	49.1	ug/L	2		6020A	Total/NA
Barium	77.2		4.0	1.5	ug/L	2		6020A	Dissolved
Cobalt	1.5	J	4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	3110		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	37300		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	18800		200	68.4	ug/L	2		6020A	Dissolved
Potassium	10700		200	74.8	ug/L	2		6020A	Dissolved
Calcium	139000		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	425		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	425		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-28-081616 — Lab Sample ID: 460-118778-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	21.8		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	102	D	12.0	3.00	mg/L	100		9056A	Total/NA
Barium	84.7		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	2.3	J	4.0	1.5	ug/L	2		6020A	Total/NA
Chromium	1.9	J	4.0	1.5	ug/L	2		6020A	Total/NA
Copper	5.0		4.0	1.6	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: OB-28-081616 (Continued) — Lab Sample ID: 460-118778-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	4140		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	3.5	J	4.0	1.6	ug/L	2		6020A	Total/NA
Lead	0.79	J	1.2	0.44	ug/L	2		6020A	Total/NA
Vanadium	2.5	J	4.0	1.4	ug/L	2		6020A	Total/NA
Aluminum	1190		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	26800		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	32700		200	68.4	ug/L	2		6020A	Total/NA
Potassium	4430		200	74.8	ug/L	2		6020A	Total/NA
Calcium	140000		200	69.5	ug/L	2		6020A	Total/NA
Iron	2160		120	49.1	ug/L	2		6020A	Total/NA
Barium	74.5		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	3470		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	24300		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	30200		200	68.4	ug/L	2		6020A	Dissolved
Potassium	4200		200	74.8	ug/L	2		6020A	Dissolved
Calcium	139000		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	385		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	385		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: Dup-01-081616 — Lab Sample ID: 460-118778-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	10.0		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	1.62	D	0.24	0.060	mg/L	2		9056A	Total/NA
Barium	6.7		4.0	1.5	ug/L	2		6020A	Total/NA
Aluminum	24.6	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	5990		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	8740		200	68.4	ug/L	2		6020A	Total/NA
Potassium	399		200	74.8	ug/L	2		6020A	Total/NA
Calcium	39400		200	69.5	ug/L	2		6020A	Total/NA
Barium	6.6		4.0	1.5	ug/L	2		6020A	Dissolved
Sodium	4960		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	7820		200	68.4	ug/L	2		6020A	Dissolved
Potassium	384		200	74.8	ug/L	2		6020A	Dissolved
Calcium	38100		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	124		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	124		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-29-081616 — Lab Sample ID: 460-118778-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.34		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	5.63		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	13.5		4.0	1.5	ug/L	2		6020A	Total/NA
Chromium	2.1	J	4.0	1.5	ug/L	2		6020A	Total/NA
Copper	3.9	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	36.6		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	2.4	J	4.0	1.6	ug/L	2		6020A	Total/NA
Vanadium	2.3	J	4.0	1.4	ug/L	2		6020A	Total/NA
Zinc	7.9	J	16.0	6.5	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: OB-29-081616 (Continued) — Lab Sample ID: 460-118778-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	1180		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3890		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	4570		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1520		200	74.8	ug/L	2		6020A	Total/NA
Calcium	14100		200	69.5	ug/L	2		6020A	Total/NA
Iron	1530		120	49.1	ug/L	2		6020A	Total/NA
Barium	6.6		4.0	1.5	ug/L	2		6020A	Dissolved
Sodium	3320		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	3860		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1300		200	74.8	ug/L	2		6020A	Dissolved
Calcium	13800		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	50.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	50.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-13-081616 — Lab Sample ID: 460-118778-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Atrazine	1.4	J	2.1	0.80	ug/L	1		8270D	Total/NA
Chloride	2.63		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	10.5		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	5.7		4.0	1.5	ug/L	2		6020A	Total/NA
Aluminum	27.0	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3680		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	4230		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1070		200	74.8	ug/L	2		6020A	Total/NA
Calcium	9770		200	69.5	ug/L	2		6020A	Total/NA
Barium	5.7		4.0	1.5	ug/L	2		6020A	Dissolved
Sodium	3210		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	3890		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1050		200	74.8	ug/L	2		6020A	Dissolved
Calcium	9530		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	38.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	38.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-14A-081616 — Lab Sample ID: 460-118778-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	0.99		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	2.33	D	0.60	0.15	mg/L	5		9056A	Total/NA
Arsenic	1.0	J	2.0	0.71	ug/L	2		6020A	Total/NA
Barium	532		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	1590		8.0	3.0	ug/L	2		6020A	Total/NA
Lead	0.56	J	1.2	0.44	ug/L	2		6020A	Total/NA
Vanadium	1.5	J	4.0	1.4	ug/L	2		6020A	Total/NA
Zinc	7.3	J	16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	27.7	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	22700		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	13800		200	68.4	ug/L	2		6020A	Total/NA
Potassium	6930		200	74.8	ug/L	2		6020A	Total/NA
Calcium	141000		200	69.5	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: OB-14A-081616 (Continued)

Lab Sample ID: 460-118778-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	41800		120	49.1	ug/L	2		6020A	Total/NA
Barium	324		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	1290		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	18200		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	10600		200	68.4	ug/L	2		6020A	Dissolved
Potassium	6000		200	74.8	ug/L	2		6020A	Dissolved
Calcium	122000		200	69.5	ug/L	2		6020A	Dissolved
Iron	2980		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	391		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	391		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-14B-081616

Lab Sample ID: 460-118778-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.27	J	1.0	0.13	ug/L	1		8260C	Total/NA
Sulfate	14.3		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	50.6	D	2.40	0.60	mg/L	20		9056A	Total/NA
Arsenic	0.79	J	2.0	0.71	ug/L	2		6020A	Total/NA
Barium	43.8		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	1770		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	17.7	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	21800		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	31400		200	68.4	ug/L	2		6020A	Total/NA
Potassium	3050		200	74.8	ug/L	2		6020A	Total/NA
Calcium	101000		200	69.5	ug/L	2		6020A	Total/NA
Iron	593		120	49.1	ug/L	2		6020A	Total/NA
Arsenic	0.89	J	2.0	0.71	ug/L	2		6020A	Dissolved
Barium	41.1		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	1610		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	19900		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	29400		200	68.4	ug/L	2		6020A	Dissolved
Potassium	3050		200	74.8	ug/L	2		6020A	Dissolved
Calcium	101000		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	339		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	339		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-24-081616

Lab Sample ID: 460-118778-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Hexachlorobenzene	0.011	J	0.021	0.0094	ug/L	1		8270D SIM	Total/NA
Chloride - DL	88.2	D	6.00	1.50	mg/L	50		9056A	Total/NA
Sulfate - DL	52.7	D	30.0	5.25	mg/L	50		9056A	Total/NA
Barium	35.6		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	486		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	40.9		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	17800		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	26200		200	68.4	ug/L	2		6020A	Total/NA
Potassium	2250		200	74.8	ug/L	2		6020A	Total/NA
Calcium	95700		200	69.5	ug/L	2		6020A	Total/NA
Iron	86.2	J	120	49.1	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: OB-24-081616 (Continued) — Lab Sample ID: 460-118778-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	33.5		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	40.0		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	16500		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	24100		200	68.4	ug/L	2		6020A	Dissolved
Potassium	2260		200	74.8	ug/L	2		6020A	Dissolved
Calcium	94600		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	226		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	226		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-16-081616 — Lab Sample ID: 460-118778-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Atrazine	0.91	J	2.1	0.80	ug/L	1		8270D	Total/NA
Sulfate	13.1		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	55.6	D	2.40	0.60	mg/L	20		9056A	Total/NA
Barium	38.3		4.0	1.5	ug/L	2		6020A	Total/NA
Copper	3.7	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	5.3	J	8.0	3.0	ug/L	2		6020A	Total/NA
Vanadium	1.6	J	4.0	1.4	ug/L	2		6020A	Total/NA
Zinc	6.6	J	16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	82.7		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	19300		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	21000		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1940		200	74.8	ug/L	2		6020A	Total/NA
Calcium	62100		200	69.5	ug/L	2		6020A	Total/NA
Iron	956		120	49.1	ug/L	2		6020A	Total/NA
Barium	39.0		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	3.8	J	8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	19000		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	21000		200	68.4	ug/L	2		6020A	Dissolved
Potassium	2070		200	74.8	ug/L	2		6020A	Dissolved
Calcium	66500		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	220		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	220		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-3-081616 — Lab Sample ID: 460-118778-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	19		5.0	1.1	ug/L	1		8260C	Total/NA
Pentachlorophenol	0.10	J	0.21	0.080	ug/L	1		8270D SIM	Total/NA
Chloride	2.23		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	9.71		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	3.1	J	4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	5.0	J	8.0	3.0	ug/L	2		6020A	Total/NA
Sodium	3750		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	5190		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1140		200	74.8	ug/L	2		6020A	Total/NA
Calcium	16800		200	69.5	ug/L	2		6020A	Total/NA
Iron	1060		120	49.1	ug/L	2		6020A	Total/NA
Barium	3.4	J	4.0	1.5	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-3-081616 (Continued)

Lab Sample ID: 460-118778-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	3.0	J	8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	3310		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	4630		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1150		200	74.8	ug/L	2		6020A	Dissolved
Calcium	16900		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	50.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	50.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: TB-01-081616
Date Collected: 08/16/16 00:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-1
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 12:41	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 12:41	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 12:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/23/16 12:41*	*1*
4-Bromofluorobenzene	*88*		*70 - 130*		*08/23/16 12:41*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 23:12	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 23:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 23:12	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 23:12	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 23:12	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 23:12	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 23:12	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 23:12	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 23:12	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 23:12	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 23:12	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 23:12	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 23:12	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 23:12	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 23:12	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 23:12	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 23:12	1
Benzene	0.090	U	1.0	0.090	ug/L			08/23/16 23:12	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 23:12	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 23:12	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 23:12	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 23:12	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 23:12	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 23:12	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 23:12	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/23/16 23:12	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 23:12	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 23:12	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 23:12	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 23:12	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/23/16 23:12	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 23:12	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 23:12	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 23:12	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 23:12	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 23:12	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 23:12	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 23:12	1
Methylene Chloride	**4.1**		1.0	0.21	ug/L			08/23/16 23:12	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 23:12	1

Client Sample ID: TB-01-081616

Date Collected: 08/16/16 00:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 23:12	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 23:12	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 23:12	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 23:12	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 23:12	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 23:12	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 23:12	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 23:12	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 23:12*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*08/23/16 23:12*	*1*
4-Bromofluorobenzene	*103*		*70 - 130*		*08/23/16 23:12*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*08/23/16 23:12*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*08/23/16 23:12*	*1*

Client Sample ID: FB-01-081616

Date Collected: 08/16/16 09:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-2
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 13:06	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 13:06	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 13:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/23/16 13:06*	*1*
4-Bromofluorobenzene	*91*		*70 - 130*		*08/23/16 13:06*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 23:40	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 23:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 23:40	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 23:40	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 23:40	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 23:40	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 23:40	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 23:40	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 23:40	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 23:40	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 23:40	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 23:40	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 23:40	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 23:40	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 23:40	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 23:40	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 23:40	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: FB-01-081616
Date Collected: 08/16/16 09:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.090	U	1.0	0.090	ug/L			08/23/16 23:40	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 23:40	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 23:40	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 23:40	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 23:40	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 23:40	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 23:40	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 23:40	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/23/16 23:40	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 23:40	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 23:40	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 23:40	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 23:40	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/23/16 23:40	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 23:40	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 23:40	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 23:40	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 23:40	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 23:40	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 23:40	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 23:40	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 23:40	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 23:40	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 23:40	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 23:40	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 23:40	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 23:40	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 23:40	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 23:40	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 23:40	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 23:40	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 23:40*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*08/23/16 23:40*	*1*
4-Bromofluorobenzene	*102*		*70 - 130*		*08/23/16 23:40*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*08/23/16 23:40*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*08/23/16 23:40*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/21/16 12:34	08/26/16 16:56	1
Benzo[a]pyrene	0.028	U	0.053	0.028	ug/L		08/21/16 12:34	08/26/16 16:56	1
Benzo[b]fluoranthene	0.013	U	0.053	0.013	ug/L		08/21/16 12:34	08/26/16 16:56	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		08/21/16 12:34	08/26/16 16:56	1
Dibenz(a,h)anthracene	0.023	U	0.053	0.023	ug/L		08/21/16 12:34	08/26/16 16:56	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		08/21/16 12:34	08/26/16 16:56	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/21/16 12:34	08/26/16 16:56	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: FB-01-081616
Date Collected: 08/16/16 09:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-2
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/21/16 12:34	08/26/16 16:56	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.44	U	11	0.44	ug/L		08/21/16 12:34	08/27/16 13:29	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		08/21/16 12:34	08/27/16 13:29	1
2-Methylphenol	1.4	U *	11	1.4	ug/L		08/21/16 12:34	08/27/16 13:29	1
4-Methylphenol	0.93	U	11	0.93	ug/L		08/21/16 12:34	08/27/16 13:29	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/21/16 12:34	08/27/16 13:29	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		08/21/16 12:34	08/27/16 13:29	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/21/16 12:34	08/27/16 13:29	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/21/16 12:34	08/27/16 13:29	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/21/16 12:34	08/27/16 13:29	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/21/16 12:34	08/27/16 13:29	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/21/16 12:34	08/27/16 13:29	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/21/16 12:34	08/27/16 13:29	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/21/16 12:34	08/27/16 13:29	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/21/16 12:34	08/27/16 13:29	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		08/21/16 12:34	08/27/16 13:29	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/21/16 12:34	08/27/16 13:29	1
Isophorone	0.71	U	11	0.71	ug/L		08/21/16 12:34	08/27/16 13:29	1
Naphthalene	0.85	U	11	0.85	ug/L		08/21/16 12:34	08/27/16 13:29	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		08/21/16 12:34	08/27/16 13:29	1
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/21/16 12:34	08/27/16 13:29	1
2-Methylnaphthalene	0.94	U	11	0.94	ug/L		08/21/16 12:34	08/27/16 13:29	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/21/16 12:34	08/27/16 13:29	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/21/16 12:34	08/27/16 13:29	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/21/16 12:34	08/27/16 13:29	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/21/16 12:34	08/27/16 13:29	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/21/16 12:34	08/27/16 13:29	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		08/21/16 12:34	08/27/16 13:29	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/21/16 12:34	08/27/16 13:29	1
Acenaphthene	0.94	U	11	0.94	ug/L		08/21/16 12:34	08/27/16 13:29	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/21/16 12:34	08/27/16 13:29	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/21/16 12:34	08/27/16 13:29	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/21/16 12:34	08/27/16 13:29	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/21/16 12:34	08/27/16 13:29	1
Fluorene	0.85	U	11	0.85	ug/L		08/21/16 12:34	08/27/16 13:29	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/21/16 12:34	08/27/16 13:29	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		08/21/16 12:34	08/27/16 13:29	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/21/16 12:34	08/27/16 13:29	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/21/16 12:34	08/27/16 13:29	1
Anthracene	0.61	U	11	0.61	ug/L		08/21/16 12:34	08/27/16 13:29	1
Carbazole	0.90	U	11	0.90	ug/L		08/21/16 12:34	08/27/16 13:29	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/21/16 12:34	08/27/16 13:29	1
Fluoranthene	0.77	U	11	0.77	ug/L		08/21/16 12:34	08/27/16 13:29	1
Pyrene	0.88	U	11	0.88	ug/L		08/21/16 12:34	08/27/16 13:29	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/21/16 12:34	08/27/16 13:29	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/21/16 12:34	08/27/16 13:29	1
Bis(2-ethylhexyl) phthalate	0.77	U	2.1	0.77	ug/L		08/21/16 12:34	08/27/16 13:29	1

Client Sample ID: FB-01-081616
Date Collected: 08/16/16 09:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/21/16 12:34	08/27/16 13:29	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/21/16 12:34	08/27/16 13:29	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		08/21/16 12:34	08/27/16 13:29	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/21/16 12:34	08/27/16 13:29	1
Acetophenone	1.1	U	11	1.1	ug/L		08/21/16 12:34	08/27/16 13:29	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/21/16 12:34	08/27/16 13:29	1
Caprolactam	1.1	U	11	1.1	ug/L		08/21/16 12:34	08/27/16 13:29	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/21/16 12:34	08/27/16 13:29	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/21/16 12:34	08/27/16 13:29	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/21/16 12:34	08/27/16 13:29	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/21/16 12:34	08/27/16 13:29	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/21/16 12:34	08/27/16 13:29	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/21/16 12:34	08/27/16 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*91*		*30 - 130*	*08/21/16 12:34*	*08/27/16 13:29*	*1*
Phenol-d5 (Surr)	*32*		*15 - 110*	*08/21/16 12:34*	*08/27/16 13:29*	*1*
Terphenyl-d14 (Surr)	*94*		*30 - 130*	*08/21/16 12:34*	*08/27/16 13:29*	*1*
2,4,6-Tribromophenol (Surr)	*132*	*X*	*15 - 110*	*08/21/16 12:34*	*08/27/16 13:29*	*1*
2-Fluorophenol (Surr)	*47*		*15 - 110*	*08/21/16 12:34*	*08/27/16 13:29*	*1*
2-Fluorobiphenyl	*84*		*30 - 130*	*08/21/16 12:34*	*08/27/16 13:29*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:18	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:18	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:18	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:18	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:18	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:18	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 09:18	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 09:18	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 09:18	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 09:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*100*		*30 - 150*	*08/22/16 19:33*	*08/23/16 09:18*	*1*
Tetrachloro-m-xylene	*56*	*p*	*30 - 150*	*08/22/16 19:33*	*08/23/16 09:18*	*1*
DCB Decachlorobiphenyl	*125*		*30 - 150*	*08/22/16 19:33*	*08/23/16 09:18*	*1*
DCB Decachlorobiphenyl	*89*		*30 - 150*	*08/22/16 19:33*	*08/23/16 09:18*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**0.20**		0.12	0.030	mg/L			08/19/16 12:33	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/19/16 12:33	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:35	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 09:08	08/26/16 15:35	2
Barium	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:35	2

Client Sample ID: FB-01-081616
Date Collected: 08/16/16 09:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-2
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 09:08	08/26/16 15:35	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 09:08	08/26/16 15:35	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:35	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:35	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 15:35	2
Manganese	3.0	U	8.0	3.0	ug/L		08/26/16 09:08	08/26/16 15:35	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 15:35	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 09:08	08/26/16 15:35	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 09:08	08/26/16 15:35	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 09:08	08/26/16 15:35	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 09:08	08/26/16 15:35	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 09:08	08/26/16 15:35	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 09:08	08/26/16 15:35	2
Sodium	87.6	U	200	87.6	ug/L		08/26/16 09:08	08/27/16 01:16	2
Magnesium	68.4	U	200	68.4	ug/L		08/26/16 09:08	08/26/16 15:35	2
Potassium	74.8	U	200	74.8	ug/L		08/26/16 09:08	08/26/16 15:35	2
Calcium	69.5	U	200	69.5	ug/L		08/26/16 09:08	08/27/16 01:16	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 09:08	08/26/16 15:35	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 09:08	08/26/16 15:35	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:07	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/25/16 10:28	08/26/16 00:07	2
Barium	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:07	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/25/16 10:28	08/26/16 00:07	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/25/16 10:28	08/26/16 00:07	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:07	2
Chromium	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:07	2
Copper	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 00:07	2
Manganese	3.0	U	8.0	3.0	ug/L		08/25/16 10:28	08/26/16 00:07	2
Nickel	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 00:07	2
Lead	0.44	U	1.2	0.44	ug/L		08/25/16 10:28	08/26/16 00:07	2
Antimony	0.76	U	2.0	0.76	ug/L		08/25/16 10:28	08/26/16 00:07	2
Selenium	0.79	U	10.0	0.79	ug/L		08/25/16 10:28	08/26/16 00:07	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/25/16 10:28	08/26/16 00:07	2
Zinc	6.5	U	16.0	6.5	ug/L		08/25/16 10:28	08/26/16 00:07	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/25/16 10:28	08/26/16 00:07	2
Sodium	87.6	U	200	87.6	ug/L		08/25/16 10:28	08/26/16 00:07	2
Magnesium	68.4	U	200	68.4	ug/L		08/25/16 10:28	08/26/16 00:07	2
Potassium	74.8	U	200	74.8	ug/L		08/25/16 10:28	08/26/16 00:07	2
Calcium	69.5	U	200	69.5	ug/L		08/25/16 10:28	08/26/16 00:07	2
Iron	49.1	U	120	49.1	ug/L		08/25/16 10:28	08/26/16 00:07	2
Thallium	0.31	U	0.80	0.31	ug/L		08/25/16 10:28	08/26/16 00:07	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 11:57	08/23/16 13:42	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: FB-01-081616

Lab Sample ID: 460-118778-2

Date Collected: 08/16/16 09:00

Matrix: Water

Date Received: 08/17/16 15:10

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 12:13	08/24/16 15:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/26/16 15:47	08/27/16 14:38	1
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			08/18/16 12:00	1
Alkalinity	5.0	U	5.0	5.0	mg/L			08/18/16 12:00	1

Client Sample ID: OB-17-081616

Lab Sample ID: 460-118778-3

Date Collected: 08/16/16 09:50

Matrix: Water

Date Received: 08/17/16 15:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 15:36	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 15:36	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 15:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/23/16 15:36*	*1*
4-Bromofluorobenzene	*96*		*70 - 130*		*08/23/16 15:36*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 00:07	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 00:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 00:07	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 00:07	1
1,1-Dichloroethane	**0.70**	**J**	1.0	0.24	ug/L			08/24/16 00:07	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 00:07	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 00:07	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 00:07	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 00:07	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 00:07	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 00:07	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 00:07	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 00:07	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 00:07	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 00:07	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 00:07	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 00:07	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 00:07	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 00:07	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 00:07	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 00:07	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 00:07	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 00:07	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 00:07	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 00:07	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 00:07	1

Client Sample ID: OB-17-081616

Date Collected: 08/16/16 09:50
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 00:07	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 00:07	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 00:07	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 00:07	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 00:07	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 00:07	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 00:07	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 00:07	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 00:07	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 00:07	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 00:07	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 00:07	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 00:07	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 00:07	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 00:07	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 00:07	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 00:07	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 00:07	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 00:07	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 00:07	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 00:07	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 00:07	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 00:07*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*08/24/16 00:07*	*1*
4-Bromofluorobenzene	*100*		*70 - 130*		*08/24/16 00:07*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*08/24/16 00:07*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*08/24/16 00:07*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/21/16 12:34	08/24/16 19:32	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/21/16 12:34	08/24/16 19:32	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/21/16 12:34	08/24/16 19:32	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/24/16 19:32	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/21/16 12:34	08/24/16 19:32	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/24/16 19:32	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/21/16 12:34	08/24/16 19:32	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/21/16 12:34	08/24/16 19:32	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/21/16 12:34	08/27/16 13:50	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 13:50	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/21/16 12:34	08/27/16 13:50	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/21/16 12:34	08/27/16 13:50	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/21/16 12:34	08/27/16 13:50	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-17-081616
Date Collected: 08/16/16 09:50
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/21/16 12:34	08/27/16 13:50	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 13:50	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/21/16 12:34	08/27/16 13:50	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/21/16 12:34	08/27/16 13:50	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/21/16 12:34	08/27/16 13:50	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/21/16 12:34	08/27/16 13:50	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/21/16 12:34	08/27/16 13:50	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/21/16 12:34	08/27/16 13:50	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/21/16 12:34	08/27/16 13:50	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/21/16 12:34	08/27/16 13:50	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/21/16 12:34	08/27/16 13:50	1
Isophorone	0.70	U	10	0.70	ug/L		08/21/16 12:34	08/27/16 13:50	1
Naphthalene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 13:50	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/21/16 12:34	08/27/16 13:50	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/21/16 12:34	08/27/16 13:50	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 13:50	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 13:50	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 13:50	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 13:50	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 13:50	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 13:50	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/21/16 12:34	08/27/16 13:50	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 13:50	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 13:50	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 13:50	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/21/16 12:34	08/27/16 13:50	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 13:50	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 13:50	1
Fluorene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 13:50	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/21/16 12:34	08/27/16 13:50	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 13:50	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 13:50	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 13:50	1
Anthracene	0.59	U	10	0.59	ug/L		08/21/16 12:34	08/27/16 13:50	1
Carbazole	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 13:50	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 13:50	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/21/16 12:34	08/27/16 13:50	1
Pyrene	0.86	U	10	0.86	ug/L		08/21/16 12:34	08/27/16 13:50	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/21/16 12:34	08/27/16 13:50	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/21/16 12:34	08/27/16 13:50	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/21/16 12:34	08/27/16 13:50	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 13:50	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/21/16 12:34	08/27/16 13:50	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/21/16 12:34	08/27/16 13:50	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 13:50	1
Acetophenone	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 13:50	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/21/16 12:34	08/27/16 13:50	1
Caprolactam	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 13:50	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/21/16 12:34	08/27/16 13:50	1

Client Sample ID: OB-17-081616
Date Collected: 08/16/16 09:50
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/21/16 12:34	08/27/16 13:50	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/21/16 12:34	08/27/16 13:50	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 13:50	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 13:50	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 13:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*87*		*30 - 130*	*08/21/16 12:34*	*08/27/16 13:50*	*1*
Phenol-d5 (Surr)	*33*		*15 - 110*	*08/21/16 12:34*	*08/27/16 13:50*	*1*
Terphenyl-d14 (Surr)	*87*		*30 - 130*	*08/21/16 12:34*	*08/27/16 13:50*	*1*
2,4,6-Tribromophenol (Surr)	*126*	*X*	*15 - 110*	*08/21/16 12:34*	*08/27/16 13:50*	*1*
2-Fluorophenol (Surr)	*51*		*15 - 110*	*08/21/16 12:34*	*08/27/16 13:50*	*1*
2-Fluorobiphenyl	*87*		*30 - 130*	*08/21/16 12:34*	*08/27/16 13:50*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:34	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:34	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:34	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:34	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:34	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:34	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 09:34	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 09:34	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 09:34	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 09:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*85*		*30 - 150*	*08/22/16 19:33*	*08/23/16 09:34*	*1*
Tetrachloro-m-xylene	*51*	*p*	*30 - 150*	*08/22/16 19:33*	*08/23/16 09:34*	*1*
DCB Decachlorobiphenyl	*120*		*30 - 150*	*08/22/16 19:33*	*08/23/16 09:34*	*1*
DCB Decachlorobiphenyl	*97*		*30 - 150*	*08/22/16 19:33*	*08/23/16 09:34*	*1*

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.9**	**F1 D**	0.60	0.15	mg/L			08/20/16 21:53	5
Sulfate	**41.9**	**F1 D**	3.00	0.53	mg/L			08/20/16 21:53	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:37	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 09:08	08/26/16 15:37	2
Barium	**11.4**		4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:37	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 09:08	08/26/16 15:37	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 09:08	08/26/16 15:37	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:37	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:37	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 15:37	2
Manganese	**327**		8.0	3.0	ug/L		08/26/16 09:08	08/26/16 15:37	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 15:37	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 09:08	08/26/16 15:37	2

Client Sample ID: OB-17-081616

Date Collected: 08/16/16 09:50
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-3

Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 09:08	08/26/16 15:37	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 09:08	08/26/16 15:37	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 09:08	08/26/16 15:37	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 09:08	08/26/16 15:37	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 09:08	08/26/16 15:37	2
Sodium	**16200**		200	87.6	ug/L		08/26/16 09:08	08/26/16 15:37	2
Magnesium	**32200**		200	68.4	ug/L		08/26/16 09:08	08/26/16 15:37	2
Potassium	**1910**		200	74.8	ug/L		08/26/16 09:08	08/26/16 15:37	2
Calcium	**92000**		200	69.5	ug/L		08/26/16 09:08	08/26/16 15:37	2
Iron	**1340**		120	49.1	ug/L		08/26/16 09:08	08/26/16 15:37	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 09:08	08/26/16 15:37	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:13	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/25/16 10:28	08/26/16 00:13	2
Barium	**10.5**		4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:13	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/25/16 10:28	08/26/16 00:13	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/25/16 10:28	08/26/16 00:13	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:13	2
Chromium	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:13	2
Copper	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 00:13	2
Manganese	**309**		8.0	3.0	ug/L		08/25/16 10:28	08/26/16 00:13	2
Nickel	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 00:13	2
Lead	0.44	U	1.2	0.44	ug/L		08/25/16 10:28	08/26/16 00:13	2
Antimony	0.76	U	2.0	0.76	ug/L		08/25/16 10:28	08/26/16 00:13	2
Selenium	0.79	U	10.0	0.79	ug/L		08/25/16 10:28	08/26/16 00:13	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/25/16 10:28	08/26/16 00:13	2
Zinc	6.5	U	16.0	6.5	ug/L		08/25/16 10:28	08/26/16 00:13	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/25/16 10:28	08/26/16 00:13	2
Sodium	**15100**		200	87.6	ug/L		08/25/16 10:28	08/26/16 00:13	2
Magnesium	**30700**		200	68.4	ug/L		08/25/16 10:28	08/26/16 00:13	2
Potassium	**2100**		200	74.8	ug/L		08/25/16 10:28	08/26/16 00:13	2
Calcium	**92000**		200	69.5	ug/L		08/25/16 10:28	08/26/16 00:13	2
Iron	49.1	U	120	49.1	ug/L		08/25/16 10:28	08/26/16 00:13	2
Thallium	0.31	U	0.80	0.31	ug/L		08/25/16 10:28	08/26/16 00:13	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 11:57	08/23/16 13:47	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 12:13	08/24/16 15:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/26/16 15:47	08/27/16 14:39	1
Bicarbonate Alkalinity as CaCO3	**333**		5.0	5.0	mg/L			08/18/16 12:00	1
Alkalinity	**333**		5.0	5.0	mg/L			08/18/16 12:00	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-18-081616
Date Collected: 08/16/16 10:10
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-4
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 16:01	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 16:01	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*08/23/16 16:01*	*1*
4-Bromofluorobenzene	*93*		*70 - 130*		*08/23/16 16:01*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 00:35	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 00:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 00:35	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 00:35	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 00:35	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 00:35	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 00:35	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 00:35	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 00:35	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 00:35	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 00:35	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 00:35	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 00:35	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 00:35	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 00:35	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 00:35	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 00:35	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 00:35	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 00:35	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 00:35	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 00:35	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 00:35	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 00:35	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 00:35	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 00:35	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 00:35	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 00:35	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 00:35	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 00:35	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 00:35	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 00:35	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 00:35	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 00:35	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 00:35	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 00:35	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 00:35	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 00:35	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 00:35	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 00:35	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 00:35	1

Client Sample ID: OB-18-081616
Date Collected: 08/16/16 10:10
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 00:35	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 00:35	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 00:35	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 00:35	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 00:35	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 00:35	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 00:35	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 00:35	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 00:35*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*08/24/16 00:35*	*1*
4-Bromofluorobenzene	*97*		*70 - 130*		*08/24/16 00:35*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*08/24/16 00:35*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*08/24/16 00:35*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/21/16 12:34	08/24/16 20:00	1
Benzo[a]pyrene	0.028	U	0.053	0.028	ug/L		08/21/16 12:34	08/24/16 20:00	1
Benzo[b]fluoranthene	0.013	U	0.053	0.013	ug/L		08/21/16 12:34	08/24/16 20:00	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		08/21/16 12:34	08/24/16 20:00	1
Dibenz(a,h)anthracene	0.023	U	0.053	0.023	ug/L		08/21/16 12:34	08/24/16 20:00	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		08/21/16 12:34	08/24/16 20:00	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/21/16 12:34	08/24/16 20:00	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/21/16 12:34	08/24/16 20:00	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.44	U	11	0.44	ug/L		08/21/16 12:34	08/27/16 14:11	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		08/21/16 12:34	08/27/16 14:11	1
2-Methylphenol	1.4	U *	11	1.4	ug/L		08/21/16 12:34	08/27/16 14:11	1
4-Methylphenol	0.93	U	11	0.93	ug/L		08/21/16 12:34	08/27/16 14:11	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/21/16 12:34	08/27/16 14:11	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		08/21/16 12:34	08/27/16 14:11	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/21/16 12:34	08/27/16 14:11	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/21/16 12:34	08/27/16 14:11	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/21/16 12:34	08/27/16 14:11	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/21/16 12:34	08/27/16 14:11	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/21/16 12:34	08/27/16 14:11	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/21/16 12:34	08/27/16 14:11	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/21/16 12:34	08/27/16 14:11	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/21/16 12:34	08/27/16 14:11	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		08/21/16 12:34	08/27/16 14:11	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/21/16 12:34	08/27/16 14:11	1
Isophorone	0.71	U	11	0.71	ug/L		08/21/16 12:34	08/27/16 14:11	1
Naphthalene	0.85	U	11	0.85	ug/L		08/21/16 12:34	08/27/16 14:11	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		08/21/16 12:34	08/27/16 14:11	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-18-081616
Date Collected: 08/16/16 10:10
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/21/16 12:34	08/27/16 14:11	1
2-Methylnaphthalene	0.94	U	11	0.94	ug/L		08/21/16 12:34	08/27/16 14:11	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/21/16 12:34	08/27/16 14:11	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/21/16 12:34	08/27/16 14:11	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/21/16 12:34	08/27/16 14:11	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/21/16 12:34	08/27/16 14:11	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/21/16 12:34	08/27/16 14:11	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		08/21/16 12:34	08/27/16 14:11	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/21/16 12:34	08/27/16 14:11	1
Acenaphthene	0.94	U	11	0.94	ug/L		08/21/16 12:34	08/27/16 14:11	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/21/16 12:34	08/27/16 14:11	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/21/16 12:34	08/27/16 14:11	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/21/16 12:34	08/27/16 14:11	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/21/16 12:34	08/27/16 14:11	1
Fluorene	0.85	U	11	0.85	ug/L		08/21/16 12:34	08/27/16 14:11	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/21/16 12:34	08/27/16 14:11	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		08/21/16 12:34	08/27/16 14:11	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/21/16 12:34	08/27/16 14:11	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/21/16 12:34	08/27/16 14:11	1
Anthracene	0.61	U	11	0.61	ug/L		08/21/16 12:34	08/27/16 14:11	1
Carbazole	0.90	U	11	0.90	ug/L		08/21/16 12:34	08/27/16 14:11	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/21/16 12:34	08/27/16 14:11	1
Fluoranthene	0.77	U	11	0.77	ug/L		08/21/16 12:34	08/27/16 14:11	1
Pyrene	0.88	U	11	0.88	ug/L		08/21/16 12:34	08/27/16 14:11	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/21/16 12:34	08/27/16 14:11	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/21/16 12:34	08/27/16 14:11	1
Bis(2-ethylhexyl) phthalate	0.77	U	2.1	0.77	ug/L		08/21/16 12:34	08/27/16 14:11	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/21/16 12:34	08/27/16 14:11	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/21/16 12:34	08/27/16 14:11	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		08/21/16 12:34	08/27/16 14:11	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/21/16 12:34	08/27/16 14:11	1
Acetophenone	1.1	U	11	1.1	ug/L		08/21/16 12:34	08/27/16 14:11	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/21/16 12:34	08/27/16 14:11	1
Caprolactam	1.1	U	11	1.1	ug/L		08/21/16 12:34	08/27/16 14:11	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/21/16 12:34	08/27/16 14:11	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/21/16 12:34	08/27/16 14:11	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/21/16 12:34	08/27/16 14:11	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/21/16 12:34	08/27/16 14:11	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/21/16 12:34	08/27/16 14:11	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/21/16 12:34	08/27/16 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*92*		*30 - 130*	*08/21/16 12:34*	*08/27/16 14:11*	*1*
Phenol-d5 (Surr)	*31*		*15 - 110*	*08/21/16 12:34*	*08/27/16 14:11*	*1*
Terphenyl-d14 (Surr)	*86*		*30 - 130*	*08/21/16 12:34*	*08/27/16 14:11*	*1*
2,4,6-Tribromophenol (Surr)	*129*	*X*	*15 - 110*	*08/21/16 12:34*	*08/27/16 14:11*	*1*
2-Fluorophenol (Surr)	*48*		*15 - 110*	*08/21/16 12:34*	*08/27/16 14:11*	*1*
2-Fluorobiphenyl	*78*		*30 - 130*	*08/21/16 12:34*	*08/27/16 14:11*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-18-081616
Date Collected: 08/16/16 10:10
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-4
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:50	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:50	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:50	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:50	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:50	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 09:50	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 09:50	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 09:50	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 09:50	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 09:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*109*		*30 - 150*	*08/22/16 19:33*	*08/23/16 09:50*	*1*
Tetrachloro-m-xylene	*83*		*30 - 150*	*08/22/16 19:33*	*08/23/16 09:50*	*1*
DCB Decachlorobiphenyl	*144*		*30 - 150*	*08/22/16 19:33*	*08/23/16 09:50*	*1*
DCB Decachlorobiphenyl	*138*		*30 - 150*	*08/22/16 19:33*	*08/23/16 09:50*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**9.98**		0.60	0.11	mg/L			08/19/16 13:10	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.61**	**D**	0.24	0.060	mg/L			08/24/16 23:05	2

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:40	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 09:08	08/26/16 15:40	2
Barium	**6.8**		4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:40	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 09:08	08/26/16 15:40	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 09:08	08/26/16 15:40	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:40	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:40	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 15:40	2
Manganese	3.0	U	8.0	3.0	ug/L		08/26/16 09:08	08/26/16 15:40	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 15:40	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 09:08	08/26/16 15:40	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 09:08	08/26/16 15:40	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 09:08	08/26/16 15:40	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 09:08	08/26/16 15:40	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 09:08	08/26/16 15:40	2
Aluminum	**25.4**	**J**	40.0	13.5	ug/L		08/26/16 09:08	08/26/16 15:40	2
Sodium	**6010**		200	87.6	ug/L		08/26/16 09:08	08/26/16 15:40	2
Magnesium	**8860**		200	68.4	ug/L		08/26/16 09:08	08/26/16 15:40	2
Potassium	**400**		200	74.8	ug/L		08/26/16 09:08	08/26/16 15:40	2
Calcium	**39500**		200	69.5	ug/L		08/26/16 09:08	08/26/16 15:40	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 09:08	08/26/16 15:40	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 09:08	08/26/16 15:40	2

Client Sample ID: OB-18-081616

Date Collected: 08/16/16 10:10
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-4
Matrix: Water

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:19	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/25/16 10:28	08/26/16 00:19	2
Barium	**7.0**		4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:19	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/25/16 10:28	08/26/16 00:19	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/25/16 10:28	08/26/16 00:19	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:19	2
Chromium	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:19	2
Copper	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 00:19	2
Manganese	3.0	U	8.0	3.0	ug/L		08/25/16 10:28	08/26/16 00:19	2
Nickel	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 00:19	2
Lead	0.44	U	1.2	0.44	ug/L		08/25/16 10:28	08/26/16 00:19	2
Antimony	0.76	U	2.0	0.76	ug/L		08/25/16 10:28	08/26/16 00:19	2
Selenium	0.79	U	10.0	0.79	ug/L		08/25/16 10:28	08/26/16 00:19	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/25/16 10:28	08/26/16 00:19	2
Zinc	6.5	U	16.0	6.5	ug/L		08/25/16 10:28	08/26/16 00:19	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/25/16 10:28	08/26/16 00:19	2
Sodium	**5000**		200	87.6	ug/L		08/25/16 10:28	08/26/16 00:19	2
Magnesium	**7860**		200	68.4	ug/L		08/25/16 10:28	08/26/16 00:19	2
Potassium	**374**		200	74.8	ug/L		08/25/16 10:28	08/26/16 00:19	2
Calcium	**38000**		200	69.5	ug/L		08/25/16 10:28	08/26/16 00:19	2
Iron	49.1	U	120	49.1	ug/L		08/25/16 10:28	08/26/16 00:19	2
Thallium	0.31	U	0.80	0.31	ug/L		08/25/16 10:28	08/26/16 00:19	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 11:57	08/23/16 13:49	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 12:13	08/24/16 15:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/26/16 15:47	08/27/16 14:40	1
Bicarbonate Alkalinity as CaCO3	**132**		5.0	5.0	mg/L			08/18/16 12:00	1
Alkalinity	**132**		5.0	5.0	mg/L			08/18/16 12:00	1

Client Sample ID: OB-10-081616

Date Collected: 08/16/16 10:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-5
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 18:57	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 18:57	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/23/16 18:57*	*1*
4-Bromofluorobenzene	*91*		*70 - 130*		*08/23/16 18:57*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-10-081616
Date Collected: 08/16/16 10:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 01:30	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 01:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 01:30	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 01:30	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 01:30	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 01:30	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 01:30	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 01:30	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 01:30	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 01:30	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 01:30	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 01:30	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 01:30	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 01:30	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 01:30	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 01:30	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 01:30	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 01:30	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 01:30	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 01:30	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 01:30	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 01:30	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 01:30	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 01:30	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 01:30	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 01:30	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 01:30	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 01:30	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 01:30	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 01:30	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 01:30	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 01:30	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 01:30	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 01:30	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 01:30	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 01:30	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 01:30	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 01:30	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 01:30	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 01:30	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 01:30	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 01:30	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 01:30	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 01:30	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 01:30	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 01:30	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 01:30	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 01:30	1

Client Sample ID: OB-10-081616
Date Collected: 08/16/16 10:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-5
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/24/16 01:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		08/24/16 01:30	1
4-Bromofluorobenzene	96		70 - 130		08/24/16 01:30	1
Dibromofluoromethane (Surr)	99		70 - 130		08/24/16 01:30	1
Toluene-d8 (Surr)	99		70 - 130		08/24/16 01:30	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.038	U	0.051	0.038	ug/L		08/21/16 12:34	08/24/16 20:29	1
Benzo[a]pyrene	0.027	U	0.051	0.027	ug/L		08/21/16 12:34	08/24/16 20:29	1
Benzo[b]fluoranthene	0.012	U	0.051	0.012	ug/L		08/21/16 12:34	08/24/16 20:29	1
Bis(2-chloroethyl)ether	0.0092	U	0.020	0.0092	ug/L		08/21/16 12:34	08/24/16 20:29	1
Dibenz(a,h)anthracene	0.022	U	0.051	0.022	ug/L		08/21/16 12:34	08/24/16 20:29	1
Hexachlorobenzene	0.0092	U	0.020	0.0092	ug/L		08/21/16 12:34	08/24/16 20:29	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.051	0.028	ug/L		08/21/16 12:34	08/24/16 20:29	1
Pentachlorophenol	0.079	U	0.20	0.079	ug/L		08/21/16 12:34	08/24/16 20:29	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.42	U	10	0.42	ug/L		08/21/16 12:34	08/27/16 14:32	1
2-Chlorophenol	0.76	U	10	0.76	ug/L		08/21/16 12:34	08/27/16 14:32	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/21/16 12:34	08/27/16 14:32	1
4-Methylphenol	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 14:32	1
2-Nitrophenol	0.60	U	10	0.60	ug/L		08/21/16 12:34	08/27/16 14:32	1
2,4-Dimethylphenol	0.93	U	10	0.93	ug/L		08/21/16 12:34	08/27/16 14:32	1
2,4-Dichlorophenol	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 14:32	1
4-Chloro-3-methylphenol	0.78	U	10	0.78	ug/L		08/21/16 12:34	08/27/16 14:32	1
2,4,6-Trichlorophenol	0.54	U	10	0.54	ug/L		08/21/16 12:34	08/27/16 14:32	1
2,4,5-Trichlorophenol	0.50	U	10	0.50	ug/L		08/21/16 12:34	08/27/16 14:32	1
2,4-Dinitrotoluene	1.1	U	2.0	1.1	ug/L		08/21/16 12:34	08/27/16 14:32	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/21/16 12:34	08/27/16 14:32	1
4,6-Dinitro-2-methylphenol	2.1	U	20	2.1	ug/L		08/21/16 12:34	08/27/16 14:32	1
N-Nitrosodi-n-propylamine	0.85	U	1.0	0.85	ug/L		08/21/16 12:34	08/27/16 14:32	1
Hexachloroethane	0.092	U	1.0	0.092	ug/L		08/21/16 12:34	08/27/16 14:32	1
Nitrobenzene	0.50	U	1.0	0.50	ug/L		08/21/16 12:34	08/27/16 14:32	1
Isophorone	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 14:32	1
Naphthalene	0.82	U	10	0.82	ug/L		08/21/16 12:34	08/27/16 14:32	1
4-Chloroaniline	0.74	U	10	0.74	ug/L		08/21/16 12:34	08/27/16 14:32	1
Hexachlorobutadiene	0.78	U	1.0	0.78	ug/L		08/21/16 12:34	08/27/16 14:32	1
2-Methylnaphthalene	0.90	U	10	0.90	ug/L		08/21/16 12:34	08/27/16 14:32	1
Hexachlorocyclopentadiene	0.62	U	10	0.62	ug/L		08/21/16 12:34	08/27/16 14:32	1
2-Chloronaphthalene	0.62	U	10	0.62	ug/L		08/21/16 12:34	08/27/16 14:32	1
2-Nitroaniline	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 14:32	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 14:32	1
Acenaphthylene	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 14:32	1
2,6-Dinitrotoluene	0.90	U	2.0	0.90	ug/L		08/21/16 12:34	08/27/16 14:32	1
3-Nitroaniline	0.84	U	10	0.84	ug/L		08/21/16 12:34	08/27/16 14:32	1
Acenaphthene	0.90	U	10	0.90	ug/L		08/21/16 12:34	08/27/16 14:32	1
Dibenzofuran	0.87	U	10	0.87	ug/L		08/21/16 12:34	08/27/16 14:32	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-10-081616
Date Collected: 08/16/16 10:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/21/16 12:34	08/27/16 14:32	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 14:32	1
4-Chlorophenyl phenyl ether	0.98	U	10	0.98	ug/L		08/21/16 12:34	08/27/16 14:32	1
Fluorene	0.82	U	10	0.82	ug/L		08/21/16 12:34	08/27/16 14:32	1
4-Nitroaniline	0.49	U	10	0.49	ug/L		08/21/16 12:34	08/27/16 14:32	1
N-Nitrosodiphenylamine	0.76	U	10	0.76	ug/L		08/21/16 12:34	08/27/16 14:32	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 14:32	1
Phenanthrene	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 14:32	1
Anthracene	0.58	U	10	0.58	ug/L		08/21/16 12:34	08/27/16 14:32	1
Carbazole	0.87	U	10	0.87	ug/L		08/21/16 12:34	08/27/16 14:32	1
Di-n-butyl phthalate	0.84	U	10	0.84	ug/L		08/21/16 12:34	08/27/16 14:32	1
Fluoranthene	0.73	U	10	0.73	ug/L		08/21/16 12:34	08/27/16 14:32	1
Pyrene	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 14:32	1
Butyl benzyl phthalate	0.61	U	10	0.61	ug/L		08/21/16 12:34	08/27/16 14:32	1
Chrysene	0.68	U	2.0	0.68	ug/L		08/21/16 12:34	08/27/16 14:32	1
Bis(2-ethylhexyl) phthalate	0.73	U	2.0	0.73	ug/L		08/21/16 12:34	08/27/16 14:32	1
Di-n-octyl phthalate	0.70	U	10	0.70	ug/L		08/21/16 12:34	08/27/16 14:32	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/21/16 12:34	08/27/16 14:32	1
Benzo[g,h,i]perylene	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 14:32	1
1,1'-Biphenyl	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 14:32	1
Acetophenone	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 14:32	1
Benzaldehyde	0.88	U	10	0.88	ug/L		08/21/16 12:34	08/27/16 14:32	1
Caprolactam	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 14:32	1
Atrazine	0.79	U	2.0	0.79	ug/L		08/21/16 12:34	08/27/16 14:32	1
2,2'-oxybis[1-chloropropane]	0.95	U	10	0.95	ug/L		08/21/16 12:34	08/27/16 14:32	1
1,2,4,5-Tetrachlorobenzene	0.44	U	10	0.44	ug/L		08/21/16 12:34	08/27/16 14:32	1
2,3,4,6-Tetrachlorophenol	0.70	U	10	0.70	ug/L		08/21/16 12:34	08/27/16 14:32	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 14:32	1
Bis(2-chloroethoxy)methane	0.70	U	10	0.70	ug/L		08/21/16 12:34	08/27/16 14:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*88*		*30 - 130*	*08/21/16 12:34*	*08/27/16 14:32*	*1*
Phenol-d5 (Surr)	*29*		*15 - 110*	*08/21/16 12:34*	*08/27/16 14:32*	*1*
Terphenyl-d14 (Surr)	*90*		*30 - 130*	*08/21/16 12:34*	*08/27/16 14:32*	*1*
2,4,6-Tribromophenol (Surr)	*133*	*X*	*15 - 110*	*08/21/16 12:34*	*08/27/16 14:32*	*1*
2-Fluorophenol (Surr)	*45*		*15 - 110*	*08/21/16 12:34*	*08/27/16 14:32*	*1*
2-Fluorobiphenyl	*85*		*30 - 130*	*08/21/16 12:34*	*08/27/16 14:32*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:06	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:06	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:06	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:06	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:06	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:06	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:06	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:06	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:06	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:06	1

Client Sample ID: OB-10-081616

Date Collected: 08/16/16 10:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-5

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*69*		*30 - 150*	*08/22/16 19:33*	*08/23/16 10:06*	*1*
Tetrachloro-m-xylene	*53*		*30 - 150*	*08/22/16 19:33*	*08/23/16 10:06*	*1*
DCB Decachlorobiphenyl	*134*		*30 - 150*	*08/22/16 19:33*	*08/23/16 10:06*	*1*
DCB Decachlorobiphenyl	*133*		*30 - 150*	*08/22/16 19:33*	*08/23/16 10:06*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.41**		0.12	0.030	mg/L			08/19/16 13:28	1
Sulfate	**5.63**		0.60	0.11	mg/L			08/19/16 13:28	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:53	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 09:08	08/26/16 15:53	2
Barium	**6.9**		4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:53	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 09:08	08/26/16 15:53	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 09:08	08/26/16 15:53	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:53	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:53	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 15:53	2
Manganese	**26.2**		8.0	3.0	ug/L		08/26/16 09:08	08/26/16 15:53	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 15:53	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 09:08	08/26/16 15:53	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 09:08	08/26/16 15:53	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 09:08	08/26/16 15:53	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 09:08	08/26/16 15:53	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 09:08	08/26/16 15:53	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 09:08	08/26/16 15:53	2
Sodium	**3860**		200	87.6	ug/L		08/26/16 09:08	08/26/16 15:53	2
Magnesium	**4250**		200	68.4	ug/L		08/26/16 09:08	08/26/16 15:53	2
Potassium	**1300**		200	74.8	ug/L		08/26/16 09:08	08/26/16 15:53	2
Calcium	**14000**		200	69.5	ug/L		08/26/16 09:08	08/26/16 15:53	2
Iron	**187**		120	49.1	ug/L		08/26/16 09:08	08/26/16 15:53	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 09:08	08/26/16 15:53	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:25	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/25/16 10:28	08/26/16 00:25	2
Barium	**6.4**		4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:25	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/25/16 10:28	08/26/16 00:25	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/25/16 10:28	08/26/16 00:25	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:25	2
Chromium	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:25	2
Copper	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 00:25	2
Manganese	3.0	U	8.0	3.0	ug/L		08/25/16 10:28	08/26/16 00:25	2
Nickel	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 00:25	2
Lead	0.44	U	1.2	0.44	ug/L		08/25/16 10:28	08/26/16 00:25	2
Antimony	0.76	U	2.0	0.76	ug/L		08/25/16 10:28	08/26/16 00:25	2
Selenium	0.79	U	10.0	0.79	ug/L		08/25/16 10:28	08/26/16 00:25	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/25/16 10:28	08/26/16 00:25	2

Client Sample ID: OB-10-081616

Lab Sample ID: 460-118778-5

Date Collected: 08/16/16 10:00

Matrix: Water

Date Received: 08/17/16 15:10

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	6.5	U	16.0	6.5	ug/L		08/25/16 10:28	08/26/16 00:25	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/25/16 10:28	08/26/16 00:25	2
Sodium	**3310**		200	87.6	ug/L		08/25/16 10:28	08/26/16 00:25	2
Magnesium	**3840**		200	68.4	ug/L		08/25/16 10:28	08/26/16 00:25	2
Potassium	**1260**		200	74.8	ug/L		08/25/16 10:28	08/26/16 00:25	2
Calcium	**13700**		200	69.5	ug/L		08/25/16 10:28	08/26/16 00:25	2
Iron	49.1	U	120	49.1	ug/L		08/25/16 10:28	08/26/16 00:25	2
Thallium	0.31	U	0.80	0.31	ug/L		08/25/16 10:28	08/26/16 00:25	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 11:57	08/23/16 13:51	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 12:13	08/24/16 15:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/26/16 15:47	08/27/16 14:44	1
Bicarbonate Alkalinity as CaCO3	**52.1**		5.0	5.0	mg/L			08/18/16 12:00	1
Alkalinity	**52.1**		5.0	5.0	mg/L			08/18/16 12:00	1

Client Sample ID: OB-16-081616

Lab Sample ID: 460-118778-6

Date Collected: 08/16/16 11:00

Matrix: Water

Date Received: 08/17/16 15:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 16:26	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 16:26	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*08/23/16 16:26*	*1*
4-Bromofluorobenzene	*92*		*70 - 130*		*08/23/16 16:26*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 01:58	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 01:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 01:58	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 01:58	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 01:58	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 01:58	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 01:58	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 01:58	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 01:58	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 01:58	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 01:58	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 01:58	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-16-081616
Date Collected: 08/16/16 11:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 01:58	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 01:58	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 01:58	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 01:58	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 01:58	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 01:58	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 01:58	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 01:58	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 01:58	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 01:58	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 01:58	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 01:58	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 01:58	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 01:58	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 01:58	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 01:58	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 01:58	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 01:58	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 01:58	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 01:58	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 01:58	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 01:58	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 01:58	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 01:58	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 01:58	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 01:58	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 01:58	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 01:58	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 01:58	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 01:58	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 01:58	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 01:58	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 01:58	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 01:58	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 01:58	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 01:58	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 01:58*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*08/24/16 01:58*	*1*
4-Bromofluorobenzene	*97*		*70 - 130*		*08/24/16 01:58*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*08/24/16 01:58*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*08/24/16 01:58*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/21/16 12:34	08/24/16 20:58	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/21/16 12:34	08/24/16 20:58	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-16-081616
Date Collected: 08/16/16 11:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-6
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/21/16 12:34	08/24/16 20:58	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/24/16 20:58	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/21/16 12:34	08/24/16 20:58	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/24/16 20:58	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/21/16 12:34	08/24/16 20:58	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/21/16 12:34	08/24/16 20:58	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/21/16 12:34	08/27/16 14:54	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 14:54	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/21/16 12:34	08/27/16 14:54	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/21/16 12:34	08/27/16 14:54	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/21/16 12:34	08/27/16 14:54	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/21/16 12:34	08/27/16 14:54	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 14:54	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/21/16 12:34	08/27/16 14:54	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/21/16 12:34	08/27/16 14:54	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/21/16 12:34	08/27/16 14:54	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/21/16 12:34	08/27/16 14:54	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/21/16 12:34	08/27/16 14:54	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/21/16 12:34	08/27/16 14:54	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/21/16 12:34	08/27/16 14:54	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/21/16 12:34	08/27/16 14:54	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/21/16 12:34	08/27/16 14:54	1
Isophorone	0.70	U	10	0.70	ug/L		08/21/16 12:34	08/27/16 14:54	1
Naphthalene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 14:54	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/21/16 12:34	08/27/16 14:54	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/21/16 12:34	08/27/16 14:54	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 14:54	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 14:54	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 14:54	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 14:54	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 14:54	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 14:54	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/21/16 12:34	08/27/16 14:54	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 14:54	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 14:54	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 14:54	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/21/16 12:34	08/27/16 14:54	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 14:54	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 14:54	1
Fluorene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 14:54	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/21/16 12:34	08/27/16 14:54	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 14:54	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 14:54	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 14:54	1
Anthracene	0.59	U	10	0.59	ug/L		08/21/16 12:34	08/27/16 14:54	1
Carbazole	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 14:54	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 14:54	1

Client Sample ID: OB-16-081616
Date Collected: 08/16/16 11:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.75	U	10	0.75	ug/L		08/21/16 12:34	08/27/16 14:54	1
Pyrene	0.86	U	10	0.86	ug/L		08/21/16 12:34	08/27/16 14:54	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/21/16 12:34	08/27/16 14:54	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/21/16 12:34	08/27/16 14:54	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/21/16 12:34	08/27/16 14:54	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 14:54	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/21/16 12:34	08/27/16 14:54	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/21/16 12:34	08/27/16 14:54	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 14:54	1
Acetophenone	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 14:54	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/21/16 12:34	08/27/16 14:54	1
Caprolactam	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 14:54	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/21/16 12:34	08/27/16 14:54	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/21/16 12:34	08/27/16 14:54	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/21/16 12:34	08/27/16 14:54	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 14:54	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 14:54	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 14:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*85*		*30 - 130*	*08/21/16 12:34*	*08/27/16 14:54*	*1*
Phenol-d5 (Surr)	*30*		*15 - 110*	*08/21/16 12:34*	*08/27/16 14:54*	*1*
Terphenyl-d14 (Surr)	*84*		*30 - 130*	*08/21/16 12:34*	*08/27/16 14:54*	*1*
2,4,6-Tribromophenol (Surr)	*129*	*X*	*15 - 110*	*08/21/16 12:34*	*08/27/16 14:54*	*1*
2-Fluorophenol (Surr)	*46*		*15 - 110*	*08/21/16 12:34*	*08/27/16 14:54*	*1*
2-Fluorobiphenyl	*80*		*30 - 130*	*08/21/16 12:34*	*08/27/16 14:54*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:22	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:22	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:22	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:22	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:22	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:22	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:22	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:22	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:22	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*84*		*30 - 150*	*08/22/16 19:33*	*08/23/16 10:22*	*1*
Tetrachloro-m-xylene	*53*	*p*	*30 - 150*	*08/22/16 19:33*	*08/23/16 10:22*	*1*
DCB Decachlorobiphenyl	*126*		*30 - 150*	*08/22/16 19:33*	*08/23/16 10:22*	*1*
DCB Decachlorobiphenyl	*104*		*30 - 150*	*08/22/16 19:33*	*08/23/16 10:22*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**4.61**		0.60	0.11	mg/L			08/19/16 13:47	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-16-081616
Date Collected: 08/16/16 11:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-6
Matrix: Water

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**69.1**	**D**	2.40	0.60	mg/L			08/20/16 22:11	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:45	2
Arsenic	**7.9**		2.0	0.71	ug/L		08/26/16 09:08	08/26/16 15:45	2
Barium	**115**		4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:45	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 09:08	08/26/16 15:45	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 09:08	08/26/16 15:45	2
Cobalt	**1.8**	**J**	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:45	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:45	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 15:45	2
Manganese	**3690**		8.0	3.0	ug/L		08/26/16 09:08	08/26/16 15:45	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 15:45	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 09:08	08/26/16 15:45	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 09:08	08/26/16 15:45	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 09:08	08/26/16 15:45	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 09:08	08/26/16 15:45	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 09:08	08/26/16 15:45	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 09:08	08/26/16 15:45	2
Sodium	**42200**		200	87.6	ug/L		08/26/16 09:08	08/26/16 15:45	2
Magnesium	**20400**		200	68.4	ug/L		08/26/16 09:08	08/26/16 15:45	2
Potassium	**10800**		200	74.8	ug/L		08/26/16 09:08	08/26/16 15:45	2
Calcium	**143000**		200	69.5	ug/L		08/26/16 09:08	08/26/16 15:45	2
Iron	**18000**		120	49.1	ug/L		08/26/16 09:08	08/26/16 15:45	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 09:08	08/26/16 15:45	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:54	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/25/16 10:28	08/26/16 00:54	2
Barium	**77.2**		4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:54	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/25/16 10:28	08/26/16 00:54	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/25/16 10:28	08/26/16 00:54	2
Cobalt	**1.5**	**J**	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:54	2
Chromium	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:54	2
Copper	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 00:54	2
Manganese	**3110**		8.0	3.0	ug/L		08/25/16 10:28	08/26/16 00:54	2
Nickel	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 00:54	2
Lead	0.44	U	1.2	0.44	ug/L		08/25/16 10:28	08/26/16 00:54	2
Antimony	0.76	U	2.0	0.76	ug/L		08/25/16 10:28	08/26/16 00:54	2
Selenium	0.79	U	10.0	0.79	ug/L		08/25/16 10:28	08/26/16 00:54	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/25/16 10:28	08/26/16 00:54	2
Zinc	6.5	U	16.0	6.5	ug/L		08/25/16 10:28	08/26/16 00:54	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/25/16 10:28	08/26/16 00:54	2
Sodium	**37300**		200	87.6	ug/L		08/25/16 10:28	08/26/16 00:54	2
Magnesium	**18800**		200	68.4	ug/L		08/25/16 10:28	08/26/16 00:54	2
Potassium	**10700**		200	74.8	ug/L		08/25/16 10:28	08/26/16 00:54	2
Calcium	**139000**		200	69.5	ug/L		08/25/16 10:28	08/26/16 00:54	2
Iron	49.1	U	120	49.1	ug/L		08/25/16 10:28	08/26/16 00:54	2

Client Sample ID: OB-16-081616

Lab Sample ID: 460-118778-6

Date Collected: 08/16/16 11:00

Matrix: Water

Date Received: 08/17/16 15:10

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	0.31	U	0.80	0.31	ug/L		08/25/16 10:28	08/26/16 00:54	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 11:57	08/23/16 13:53	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 12:13	08/24/16 15:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/26/16 15:47	08/27/16 14:45	1
Bicarbonate Alkalinity as CaCO3	**425**		5.0	5.0	mg/L			08/18/16 12:00	1
Alkalinity	**425**		5.0	5.0	mg/L			08/18/16 12:00	1

Client Sample ID: OB-28-081616

Lab Sample ID: 460-118778-7

Date Collected: 08/16/16 12:05

Matrix: Water

Date Received: 08/17/16 15:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 16:52	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 16:52	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 16:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*08/23/16 16:52*	*1*
4-Bromofluorobenzene	*91*		*70 - 130*		*08/23/16 16:52*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 02:25	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 02:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 02:25	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 02:25	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 02:25	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 02:25	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 02:25	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 02:25	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 02:25	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 02:25	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 02:25	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 02:25	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 02:25	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 02:25	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 02:25	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 02:25	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 02:25	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 02:25	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 02:25	1

Client Sample ID: OB-28-081616
Date Collected: 08/16/16 12:05
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 02:25	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 02:25	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 02:25	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 02:25	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 02:25	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 02:25	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 02:25	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 02:25	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 02:25	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 02:25	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 02:25	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 02:25	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 02:25	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 02:25	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 02:25	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 02:25	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 02:25	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 02:25	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 02:25	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 02:25	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 02:25	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 02:25	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 02:25	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 02:25	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 02:25	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 02:25	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 02:25	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 02:25	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 02:25	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 02:25*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*08/24/16 02:25*	*1*
4-Bromofluorobenzene	*100*		*70 - 130*		*08/24/16 02:25*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*08/24/16 02:25*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*08/24/16 02:25*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/21/16 12:34	08/26/16 18:24	1
Benzo[a]pyrene	0.028	U	0.053	0.028	ug/L		08/21/16 12:34	08/26/16 18:24	1
Benzo[b]fluoranthene	0.013	U	0.053	0.013	ug/L		08/21/16 12:34	08/26/16 18:24	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		08/21/16 12:34	08/26/16 18:24	1
Dibenz(a,h)anthracene	0.023	U	0.053	0.023	ug/L		08/21/16 12:34	08/26/16 18:24	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		08/21/16 12:34	08/26/16 18:24	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/21/16 12:34	08/26/16 18:24	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/21/16 12:34	08/26/16 18:24	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-28-081616
Date Collected: 08/16/16 12:05
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.44	U	11	0.44	ug/L		08/21/16 12:34	08/27/16 15:15	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		08/21/16 12:34	08/27/16 15:15	1
2-Methylphenol	1.4	U *	11	1.4	ug/L		08/21/16 12:34	08/27/16 15:15	1
4-Methylphenol	0.93	U	11	0.93	ug/L		08/21/16 12:34	08/27/16 15:15	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/21/16 12:34	08/27/16 15:15	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		08/21/16 12:34	08/27/16 15:15	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/21/16 12:34	08/27/16 15:15	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/21/16 12:34	08/27/16 15:15	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/21/16 12:34	08/27/16 15:15	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/21/16 12:34	08/27/16 15:15	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/21/16 12:34	08/27/16 15:15	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/21/16 12:34	08/27/16 15:15	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/21/16 12:34	08/27/16 15:15	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/21/16 12:34	08/27/16 15:15	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		08/21/16 12:34	08/27/16 15:15	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/21/16 12:34	08/27/16 15:15	1
Isophorone	0.71	U	11	0.71	ug/L		08/21/16 12:34	08/27/16 15:15	1
Naphthalene	0.85	U	11	0.85	ug/L		08/21/16 12:34	08/27/16 15:15	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		08/21/16 12:34	08/27/16 15:15	1
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/21/16 12:34	08/27/16 15:15	1
2-Methylnaphthalene	0.94	U	11	0.94	ug/L		08/21/16 12:34	08/27/16 15:15	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/21/16 12:34	08/27/16 15:15	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/21/16 12:34	08/27/16 15:15	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/21/16 12:34	08/27/16 15:15	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/21/16 12:34	08/27/16 15:15	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/21/16 12:34	08/27/16 15:15	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		08/21/16 12:34	08/27/16 15:15	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/21/16 12:34	08/27/16 15:15	1
Acenaphthene	0.94	U	11	0.94	ug/L		08/21/16 12:34	08/27/16 15:15	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/21/16 12:34	08/27/16 15:15	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/21/16 12:34	08/27/16 15:15	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/21/16 12:34	08/27/16 15:15	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/21/16 12:34	08/27/16 15:15	1
Fluorene	0.85	U	11	0.85	ug/L		08/21/16 12:34	08/27/16 15:15	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/21/16 12:34	08/27/16 15:15	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		08/21/16 12:34	08/27/16 15:15	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/21/16 12:34	08/27/16 15:15	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/21/16 12:34	08/27/16 15:15	1
Anthracene	0.61	U	11	0.61	ug/L		08/21/16 12:34	08/27/16 15:15	1
Carbazole	0.90	U	11	0.90	ug/L		08/21/16 12:34	08/27/16 15:15	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/21/16 12:34	08/27/16 15:15	1
Fluoranthene	0.77	U	11	0.77	ug/L		08/21/16 12:34	08/27/16 15:15	1
Pyrene	0.88	U	11	0.88	ug/L		08/21/16 12:34	08/27/16 15:15	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/21/16 12:34	08/27/16 15:15	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/21/16 12:34	08/27/16 15:15	1
Bis(2-ethylhexyl) phthalate	0.77	U	2.1	0.77	ug/L		08/21/16 12:34	08/27/16 15:15	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/21/16 12:34	08/27/16 15:15	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/21/16 12:34	08/27/16 15:15	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		08/21/16 12:34	08/27/16 15:15	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-28-081616
Date Collected: 08/16/16 12:05
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/21/16 12:34	08/27/16 15:15	1
Acetophenone	1.1	U	11	1.1	ug/L		08/21/16 12:34	08/27/16 15:15	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/21/16 12:34	08/27/16 15:15	1
Caprolactam	1.1	U	11	1.1	ug/L		08/21/16 12:34	08/27/16 15:15	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/21/16 12:34	08/27/16 15:15	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/21/16 12:34	08/27/16 15:15	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/21/16 12:34	08/27/16 15:15	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/21/16 12:34	08/27/16 15:15	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/21/16 12:34	08/27/16 15:15	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/21/16 12:34	08/27/16 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*84*		*30 - 130*	*08/21/16 12:34*	*08/27/16 15:15*	*1*
Phenol-d5 (Surr)	*35*		*15 - 110*	*08/21/16 12:34*	*08/27/16 15:15*	*1*
Terphenyl-d14 (Surr)	*90*		*30 - 130*	*08/21/16 12:34*	*08/27/16 15:15*	*1*
2,4,6-Tribromophenol (Surr)	*132*	*X*	*15 - 110*	*08/21/16 12:34*	*08/27/16 15:15*	*1*
2-Fluorophenol (Surr)	*50*		*15 - 110*	*08/21/16 12:34*	*08/27/16 15:15*	*1*
2-Fluorobiphenyl	*81*		*30 - 130*	*08/21/16 12:34*	*08/27/16 15:15*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:38	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:38	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:38	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:38	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:38	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:38	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:38	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:38	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:38	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*61*		*30 - 150*	*08/22/16 19:33*	*08/23/16 10:38*	*1*
Tetrachloro-m-xylene	*37*	*p*	*30 - 150*	*08/22/16 19:33*	*08/23/16 10:38*	*1*
DCB Decachlorobiphenyl	*131*		*30 - 150*	*08/22/16 19:33*	*08/23/16 10:38*	*1*
DCB Decachlorobiphenyl	*105*		*30 - 150*	*08/22/16 19:33*	*08/23/16 10:38*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**21.8**		0.60	0.11	mg/L			08/19/16 14:05	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**102**	**D**	12.0	3.00	mg/L			08/20/16 22:30	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:36	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 09:08	08/26/16 16:36	2
Barium	**84.7**		4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:36	2

Client Sample ID: OB-28-081616

Date Collected: 08/16/16 12:05
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-7

Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 09:08	08/26/16 16:36	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 09:08	08/26/16 16:36	2
Cobalt	**2.3**	**J**	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:36	2
Chromium	**1.9**	**J**	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:36	2
Copper	**5.0**		4.0	1.6	ug/L		08/26/16 09:08	08/26/16 16:36	2
Manganese	**4140**		8.0	3.0	ug/L		08/26/16 09:08	08/26/16 16:36	2
Nickel	**3.5**	**J**	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 16:36	2
Lead	**0.79**	**J**	1.2	0.44	ug/L		08/26/16 09:08	08/26/16 16:36	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 09:08	08/26/16 16:36	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 09:08	08/26/16 16:36	2
Vanadium	**2.5**	**J**	4.0	1.4	ug/L		08/26/16 09:08	08/26/16 16:36	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 09:08	08/26/16 16:36	2
Aluminum	**1190**		40.0	13.5	ug/L		08/26/16 09:08	08/26/16 16:36	2
Sodium	**26800**		200	87.6	ug/L		08/26/16 09:08	08/26/16 16:36	2
Magnesium	**32700**		200	68.4	ug/L		08/26/16 09:08	08/26/16 16:36	2
Potassium	**4430**		200	74.8	ug/L		08/26/16 09:08	08/26/16 16:36	2
Calcium	**140000**		200	69.5	ug/L		08/26/16 09:08	08/26/16 16:36	2
Iron	**2160**		120	49.1	ug/L		08/26/16 09:08	08/26/16 16:36	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 09:08	08/26/16 16:36	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:00	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/25/16 10:28	08/26/16 01:00	2
Barium	**74.5**		4.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:00	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/25/16 10:28	08/26/16 01:00	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/25/16 10:28	08/26/16 01:00	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:00	2
Chromium	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:00	2
Copper	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 01:00	2
Manganese	**3470**		8.0	3.0	ug/L		08/25/16 10:28	08/26/16 01:00	2
Nickel	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 01:00	2
Lead	0.44	U	1.2	0.44	ug/L		08/25/16 10:28	08/26/16 01:00	2
Antimony	0.76	U	2.0	0.76	ug/L		08/25/16 10:28	08/26/16 01:00	2
Selenium	0.79	U	10.0	0.79	ug/L		08/25/16 10:28	08/26/16 01:00	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/25/16 10:28	08/26/16 01:00	2
Zinc	6.5	U	16.0	6.5	ug/L		08/25/16 10:28	08/26/16 01:00	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/25/16 10:28	08/26/16 01:00	2
Sodium	**24300**		200	87.6	ug/L		08/25/16 10:28	08/26/16 01:00	2
Magnesium	**30200**		200	68.4	ug/L		08/25/16 10:28	08/26/16 01:00	2
Potassium	**4200**		200	74.8	ug/L		08/25/16 10:28	08/26/16 01:00	2
Calcium	**139000**		200	69.5	ug/L		08/25/16 10:28	08/26/16 01:00	2
Iron	49.1	U	120	49.1	ug/L		08/25/16 10:28	08/26/16 01:00	2
Thallium	0.31	U	0.80	0.31	ug/L		08/25/16 10:28	08/26/16 01:00	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 11:57	08/23/16 13:55	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-28-081616

Lab Sample ID: 460-118778-7

Date Collected: 08/16/16 12:05
Matrix: Water
Date Received: 08/17/16 15:10

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 12:13	08/24/16 15:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/26/16 15:47	08/27/16 14:46	1
Bicarbonate Alkalinity as CaCO3	**385**		5.0	5.0	mg/L			08/22/16 13:34	1
Alkalinity	**385**		5.0	5.0	mg/L			08/22/16 13:34	1

Client Sample ID: Dup-01-081616

Lab Sample ID: 460-118778-8

Date Collected: 08/16/16 12:00
Matrix: Water
Date Received: 08/17/16 15:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 19:22	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 19:22	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*08/23/16 19:22*	*1*
4-Bromofluorobenzene	*92*		*70 - 130*		*08/23/16 19:22*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 02:53	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 02:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 02:53	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 02:53	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 02:53	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 02:53	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 02:53	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 02:53	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 02:53	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 02:53	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 02:53	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 02:53	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 02:53	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 02:53	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 02:53	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 02:53	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 02:53	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 02:53	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 02:53	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 02:53	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 02:53	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 02:53	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 02:53	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 02:53	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 02:53	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 02:53	1

Client Sample ID: Dup-01-081616

Date Collected: 08/16/16 12:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-8

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 02:53	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 02:53	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 02:53	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 02:53	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 02:53	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 02:53	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 02:53	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 02:53	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 02:53	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 02:53	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 02:53	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 02:53	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 02:53	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 02:53	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 02:53	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 02:53	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 02:53	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 02:53	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 02:53	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 02:53	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 02:53	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 02:53	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 02:53*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*08/24/16 02:53*	*1*
4-Bromofluorobenzene	*99*		*70 - 130*		*08/24/16 02:53*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*08/24/16 02:53*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*08/24/16 02:53*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/21/16 12:34	08/28/16 09:35	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/21/16 12:34	08/28/16 09:35	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/21/16 12:34	08/28/16 09:35	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/28/16 09:35	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/21/16 12:34	08/28/16 09:35	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/28/16 09:35	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/21/16 12:34	08/28/16 09:35	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/21/16 12:34	08/28/16 09:35	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/21/16 12:34	08/27/16 15:36	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 15:36	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/21/16 12:34	08/27/16 15:36	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/21/16 12:34	08/27/16 15:36	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/21/16 12:34	08/27/16 15:36	1

Client Sample ID: Dup-01-081616
Date Collected: 08/16/16 12:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/21/16 12:34	08/27/16 15:36	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 15:36	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/21/16 12:34	08/27/16 15:36	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/21/16 12:34	08/27/16 15:36	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/21/16 12:34	08/27/16 15:36	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/21/16 12:34	08/27/16 15:36	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/21/16 12:34	08/27/16 15:36	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/21/16 12:34	08/27/16 15:36	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/21/16 12:34	08/27/16 15:36	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/21/16 12:34	08/27/16 15:36	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/21/16 12:34	08/27/16 15:36	1
Isophorone	0.70	U	10	0.70	ug/L		08/21/16 12:34	08/27/16 15:36	1
Naphthalene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 15:36	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/21/16 12:34	08/27/16 15:36	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/21/16 12:34	08/27/16 15:36	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 15:36	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 15:36	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 15:36	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 15:36	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 15:36	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 15:36	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/21/16 12:34	08/27/16 15:36	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 15:36	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 15:36	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 15:36	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/21/16 12:34	08/27/16 15:36	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 15:36	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 15:36	1
Fluorene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 15:36	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/21/16 12:34	08/27/16 15:36	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 15:36	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 15:36	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 15:36	1
Anthracene	0.59	U	10	0.59	ug/L		08/21/16 12:34	08/27/16 15:36	1
Carbazole	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 15:36	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 15:36	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/21/16 12:34	08/27/16 15:36	1
Pyrene	0.86	U	10	0.86	ug/L		08/21/16 12:34	08/27/16 15:36	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/21/16 12:34	08/27/16 15:36	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/21/16 12:34	08/27/16 15:36	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/21/16 12:34	08/27/16 15:36	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 15:36	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/21/16 12:34	08/27/16 15:36	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/21/16 12:34	08/27/16 15:36	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 15:36	1
Acetophenone	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 15:36	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/21/16 12:34	08/27/16 15:36	1
Caprolactam	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 15:36	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/21/16 12:34	08/27/16 15:36	1

Client Sample ID: Dup-01-081616

Date Collected: 08/16/16 12:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-8

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/21/16 12:34	08/27/16 15:36	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/21/16 12:34	08/27/16 15:36	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 15:36	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 15:36	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 15:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*86*		*30 - 130*	*08/21/16 12:34*	*08/27/16 15:36*	*1*
Phenol-d5 (Surr)	*32*		*15 - 110*	*08/21/16 12:34*	*08/27/16 15:36*	*1*
Terphenyl-d14 (Surr)	*85*		*30 - 130*	*08/21/16 12:34*	*08/27/16 15:36*	*1*
2,4,6-Tribromophenol (Surr)	*117*	*X*	*15 - 110*	*08/21/16 12:34*	*08/27/16 15:36*	*1*
2-Fluorophenol (Surr)	*45*		*15 - 110*	*08/21/16 12:34*	*08/27/16 15:36*	*1*
2-Fluorobiphenyl	*73*		*30 - 130*	*08/21/16 12:34*	*08/27/16 15:36*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:57	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:57	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:57	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:57	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:57	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 10:57	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:57	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:57	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:57	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 10:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*54*		*30 - 150*	*08/22/16 19:33*	*08/23/16 10:57*	*1*
Tetrachloro-m-xylene	*56*		*30 - 150*	*08/22/16 19:33*	*08/23/16 10:57*	*1*
DCB Decachlorobiphenyl	*103*		*30 - 150*	*08/22/16 19:33*	*08/23/16 10:57*	*1*
DCB Decachlorobiphenyl	*109*		*30 - 150*	*08/22/16 19:33*	*08/23/16 10:57*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**10.0**		0.60	0.11	mg/L			08/19/16 14:23	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.62**	**D**	0.24	0.060	mg/L			08/24/16 23:23	2

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:39	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 09:08	08/26/16 16:39	2
Barium	**6.7**		4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:39	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 09:08	08/26/16 16:39	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 09:08	08/26/16 16:39	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:39	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:39	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 16:39	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: Dup-01-081616
Date Collected: 08/16/16 12:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-8
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	3.0	U	8.0	3.0	ug/L		08/26/16 09:08	08/26/16 16:39	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 16:39	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 09:08	08/26/16 16:39	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 09:08	08/26/16 16:39	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 09:08	08/26/16 16:39	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 09:08	08/26/16 16:39	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 09:08	08/26/16 16:39	2
Aluminum	**24.6**	**J**	40.0	13.5	ug/L		08/26/16 09:08	08/26/16 16:39	2
Sodium	**5990**		200	87.6	ug/L		08/26/16 09:08	08/26/16 16:39	2
Magnesium	**8740**		200	68.4	ug/L		08/26/16 09:08	08/26/16 16:39	2
Potassium	**399**		200	74.8	ug/L		08/26/16 09:08	08/26/16 16:39	2
Calcium	**39400**		200	69.5	ug/L		08/26/16 09:08	08/26/16 16:39	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 09:08	08/26/16 16:39	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 09:08	08/26/16 16:39	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:06	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/25/16 10:28	08/26/16 01:06	2
Barium	**6.6**		4.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:06	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/25/16 10:28	08/26/16 01:06	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/25/16 10:28	08/26/16 01:06	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:06	2
Chromium	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:06	2
Copper	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 01:06	2
Manganese	3.0	U	8.0	3.0	ug/L		08/25/16 10:28	08/26/16 01:06	2
Nickel	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 01:06	2
Lead	0.44	U	1.2	0.44	ug/L		08/25/16 10:28	08/26/16 01:06	2
Antimony	0.76	U	2.0	0.76	ug/L		08/25/16 10:28	08/26/16 01:06	2
Selenium	0.79	U	10.0	0.79	ug/L		08/25/16 10:28	08/26/16 01:06	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/25/16 10:28	08/26/16 01:06	2
Zinc	6.5	U	16.0	6.5	ug/L		08/25/16 10:28	08/26/16 01:06	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/25/16 10:28	08/26/16 01:06	2
Sodium	**4960**		200	87.6	ug/L		08/25/16 10:28	08/26/16 01:06	2
Magnesium	**7820**		200	68.4	ug/L		08/25/16 10:28	08/26/16 01:06	2
Potassium	**384**		200	74.8	ug/L		08/25/16 10:28	08/26/16 01:06	2
Calcium	**38100**		200	69.5	ug/L		08/25/16 10:28	08/26/16 01:06	2
Iron	49.1	U	120	49.1	ug/L		08/25/16 10:28	08/26/16 01:06	2
Thallium	0.31	U	0.80	0.31	ug/L		08/25/16 10:28	08/26/16 01:06	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 11:57	08/23/16 13:57	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 12:13	08/24/16 15:49	1

Client Sample ID: Dup-01-081616

Lab Sample ID: 460-118778-8

Date Collected: 08/16/16 12:00

Matrix: Water

Date Received: 08/17/16 15:10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/26/16 15:47	08/27/16 14:47	1
Bicarbonate Alkalinity as CaCO3	**124**		5.0	5.0	mg/L			08/22/16 13:34	1
Alkalinity	**124**		5.0	5.0	mg/L			08/22/16 13:34	1

Client Sample ID: OB-29-081616

Lab Sample ID: 460-118778-9

Date Collected: 08/16/16 11:40

Matrix: Water

Date Received: 08/17/16 15:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 23:14	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 23:14	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 23:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*08/23/16 23:14*	*1*
4-Bromofluorobenzene	*82*		*70 - 130*		*08/23/16 23:14*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 03:20	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 03:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 03:20	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 03:20	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 03:20	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 03:20	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 03:20	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 03:20	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 03:20	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 03:20	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 03:20	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 03:20	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 03:20	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 03:20	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 03:20	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 03:20	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 03:20	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 03:20	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 03:20	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 03:20	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 03:20	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 03:20	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 03:20	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 03:20	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 03:20	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 03:20	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 03:20	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 03:20	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 03:20	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 03:20	1

Client Sample ID: OB-29-081616
Date Collected: 08/16/16 11:40
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 03:20	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 03:20	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 03:20	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 03:20	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 03:20	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 03:20	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 03:20	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 03:20	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 03:20	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 03:20	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 03:20	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 03:20	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 03:20	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 03:20	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 03:20	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 03:20	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 03:20	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 03:20	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 03:20*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*08/24/16 03:20*	*1*
4-Bromofluorobenzene	*98*		*70 - 130*		*08/24/16 03:20*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*08/24/16 03:20*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*08/24/16 03:20*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/21/16 12:34	08/26/16 19:22	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/21/16 12:34	08/26/16 19:22	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/21/16 12:34	08/26/16 19:22	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/26/16 19:22	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/21/16 12:34	08/26/16 19:22	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/26/16 19:22	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/21/16 12:34	08/26/16 19:22	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/21/16 12:34	08/26/16 19:22	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/21/16 12:34	08/27/16 15:57	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 15:57	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/21/16 12:34	08/27/16 15:57	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/21/16 12:34	08/27/16 15:57	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/21/16 12:34	08/27/16 15:57	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/21/16 12:34	08/27/16 15:57	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 15:57	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/21/16 12:34	08/27/16 15:57	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/21/16 12:34	08/27/16 15:57	1

Client Sample ID: OB-29-081616
Date Collected: 08/16/16 11:40
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/21/16 12:34	08/27/16 15:57	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/21/16 12:34	08/27/16 15:57	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/21/16 12:34	08/27/16 15:57	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/21/16 12:34	08/27/16 15:57	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/21/16 12:34	08/27/16 15:57	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/21/16 12:34	08/27/16 15:57	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/21/16 12:34	08/27/16 15:57	1
Isophorone	0.70	U	10	0.70	ug/L		08/21/16 12:34	08/27/16 15:57	1
Naphthalene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 15:57	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/21/16 12:34	08/27/16 15:57	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/21/16 12:34	08/27/16 15:57	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 15:57	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 15:57	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 15:57	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 15:57	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 15:57	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 15:57	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/21/16 12:34	08/27/16 15:57	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 15:57	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 15:57	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 15:57	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/21/16 12:34	08/27/16 15:57	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 15:57	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 15:57	1
Fluorene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 15:57	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/21/16 12:34	08/27/16 15:57	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 15:57	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 15:57	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 15:57	1
Anthracene	0.59	U	10	0.59	ug/L		08/21/16 12:34	08/27/16 15:57	1
Carbazole	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 15:57	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 15:57	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/21/16 12:34	08/27/16 15:57	1
Pyrene	0.86	U	10	0.86	ug/L		08/21/16 12:34	08/27/16 15:57	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/21/16 12:34	08/27/16 15:57	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/21/16 12:34	08/27/16 15:57	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/21/16 12:34	08/27/16 15:57	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 15:57	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/21/16 12:34	08/27/16 15:57	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/21/16 12:34	08/27/16 15:57	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 15:57	1
Acetophenone	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 15:57	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/21/16 12:34	08/27/16 15:57	1
Caprolactam	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 15:57	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/21/16 12:34	08/27/16 15:57	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/21/16 12:34	08/27/16 15:57	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/21/16 12:34	08/27/16 15:57	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 15:57	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 15:57	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-29-081616
Date Collected: 08/16/16 11:40
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*94*		*30 - 130*	*08/21/16 12:34*	*08/27/16 15:57*	*1*
Phenol-d5 (Surr)	*32*		*15 - 110*	*08/21/16 12:34*	*08/27/16 15:57*	*1*
Terphenyl-d14 (Surr)	*91*		*30 - 130*	*08/21/16 12:34*	*08/27/16 15:57*	*1*
2,4,6-Tribromophenol (Surr)	*136*	*X*	*15 - 110*	*08/21/16 12:34*	*08/27/16 15:57*	*1*
2-Fluorophenol (Surr)	*50*		*15 - 110*	*08/21/16 12:34*	*08/27/16 15:57*	*1*
2-Fluorobiphenyl	*79*		*30 - 130*	*08/21/16 12:34*	*08/27/16 15:57*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:12	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:12	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:12	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:12	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:12	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:12	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:12	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:12	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:12	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*55*		*30 - 150*	*08/22/16 19:33*	*08/23/16 11:12*	*1*
Tetrachloro-m-xylene	*62*		*30 - 150*	*08/22/16 19:33*	*08/23/16 11:12*	*1*
DCB Decachlorobiphenyl	*109*		*30 - 150*	*08/22/16 19:33*	*08/23/16 11:12*	*1*
DCB Decachlorobiphenyl	*113*		*30 - 150*	*08/22/16 19:33*	*08/23/16 11:12*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.34**		0.12	0.030	mg/L			08/19/16 14:41	1
Sulfate	**5.63**		0.60	0.11	mg/L			08/19/16 14:41	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:41	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 09:08	08/26/16 16:41	2
Barium	**13.5**		4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:41	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 09:08	08/26/16 16:41	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 09:08	08/26/16 16:41	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:41	2
Chromium	**2.1**	**J**	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:41	2
Copper	**3.9**	**J**	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 16:41	2
Manganese	**36.6**		8.0	3.0	ug/L		08/26/16 09:08	08/26/16 16:41	2
Nickel	**2.4**	**J**	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 16:41	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 09:08	08/26/16 16:41	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 09:08	08/26/16 16:41	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 09:08	08/26/16 16:41	2
Vanadium	**2.3**	**J**	4.0	1.4	ug/L		08/26/16 09:08	08/26/16 16:41	2
Zinc	**7.9**	**J**	16.0	6.5	ug/L		08/26/16 09:08	08/26/16 16:41	2

Client Sample ID: OB-29-081616

Date Collected: 08/16/16 11:40
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-9

Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**1180**		40.0	13.5	ug/L		08/26/16 09:08	08/26/16 16:41	2
Sodium	**3890**		200	87.6	ug/L		08/26/16 09:08	08/26/16 16:41	2
Magnesium	**4570**		200	68.4	ug/L		08/26/16 09:08	08/26/16 16:41	2
Potassium	**1520**		200	74.8	ug/L		08/26/16 09:08	08/26/16 16:41	2
Calcium	**14100**		200	69.5	ug/L		08/26/16 09:08	08/26/16 16:41	2
Iron	**1530**		120	49.1	ug/L		08/26/16 09:08	08/26/16 16:41	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 09:08	08/26/16 16:41	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:12	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/25/16 10:28	08/26/16 01:12	2
Barium	**6.6**		4.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:12	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/25/16 10:28	08/26/16 01:12	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/25/16 10:28	08/26/16 01:12	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:12	2
Chromium	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:12	2
Copper	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 01:12	2
Manganese	3.0	U	8.0	3.0	ug/L		08/25/16 10:28	08/26/16 01:12	2
Nickel	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 01:12	2
Lead	0.44	U	1.2	0.44	ug/L		08/25/16 10:28	08/26/16 01:12	2
Antimony	0.76	U	2.0	0.76	ug/L		08/25/16 10:28	08/26/16 01:12	2
Selenium	0.79	U	10.0	0.79	ug/L		08/25/16 10:28	08/26/16 01:12	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/25/16 10:28	08/26/16 01:12	2
Zinc	6.5	U	16.0	6.5	ug/L		08/25/16 10:28	08/26/16 01:12	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/25/16 10:28	08/26/16 01:12	2
Sodium	**3320**		200	87.6	ug/L		08/25/16 10:28	08/26/16 01:12	2
Magnesium	**3860**		200	68.4	ug/L		08/25/16 10:28	08/26/16 01:12	2
Potassium	**1300**		200	74.8	ug/L		08/25/16 10:28	08/26/16 01:12	2
Calcium	**13800**		200	69.5	ug/L		08/25/16 10:28	08/26/16 01:12	2
Iron	49.1	U	120	49.1	ug/L		08/25/16 10:28	08/26/16 01:12	2
Thallium	0.31	U	0.80	0.31	ug/L		08/25/16 10:28	08/26/16 01:12	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 11:57	08/23/16 13:58	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 12:13	08/24/16 15:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/30/16 15:47	08/30/16 18:48	1
Bicarbonate Alkalinity as CaCO3	**50.1**		5.0	5.0	mg/L			08/22/16 13:34	1
Alkalinity	**50.1**		5.0	5.0	mg/L			08/22/16 13:34	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-13-081616
Date Collected: 08/16/16 14:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-10
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 23:39	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 23:39	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 23:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*08/23/16 23:39*	*1*
4-Bromofluorobenzene	*83*		*70 - 130*		*08/23/16 23:39*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 01:02	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 01:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 01:02	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 01:02	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 01:02	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 01:02	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 01:02	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 01:02	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 01:02	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 01:02	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 01:02	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 01:02	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 01:02	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 01:02	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 01:02	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 01:02	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 01:02	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 01:02	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 01:02	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 01:02	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 01:02	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 01:02	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 01:02	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 01:02	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 01:02	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 01:02	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 01:02	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 01:02	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 01:02	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 01:02	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 01:02	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 01:02	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 01:02	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 01:02	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 01:02	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 01:02	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 01:02	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 01:02	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 01:02	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 01:02	1

Client Sample ID: OB-13-081616
Date Collected: 08/16/16 14:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-10
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 01:02	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 01:02	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 01:02	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 01:02	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 01:02	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 01:02	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 01:02	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 01:02	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 01:02*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*08/24/16 01:02*	*1*
4-Bromofluorobenzene	*96*		*70 - 130*		*08/24/16 01:02*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*08/24/16 01:02*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*08/24/16 01:02*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/21/16 12:34	08/24/16 18:34	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/21/16 12:34	08/24/16 18:34	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/21/16 12:34	08/24/16 18:34	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/24/16 18:34	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/21/16 12:34	08/24/16 18:34	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/24/16 18:34	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/21/16 12:34	08/24/16 18:34	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/21/16 12:34	08/24/16 18:34	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/21/16 12:34	08/27/16 12:55	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 12:55	1
2-Methylphenol	1.3	U F1 *	10	1.3	ug/L		08/21/16 12:34	08/27/16 12:55	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/21/16 12:34	08/27/16 12:55	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/21/16 12:34	08/27/16 12:55	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/21/16 12:34	08/27/16 12:55	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 12:55	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/21/16 12:34	08/27/16 12:55	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/21/16 12:34	08/27/16 12:55	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/21/16 12:34	08/27/16 12:55	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/21/16 12:34	08/27/16 12:55	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/21/16 12:34	08/27/16 12:55	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/21/16 12:34	08/27/16 12:55	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/21/16 12:34	08/27/16 12:55	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/21/16 12:34	08/27/16 12:55	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/21/16 12:34	08/27/16 12:55	1
Isophorone	0.70	U	10	0.70	ug/L		08/21/16 12:34	08/27/16 12:55	1
Naphthalene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 12:55	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/21/16 12:34	08/27/16 12:55	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-13-081616
Date Collected: 08/16/16 14:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-10
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/21/16 12:34	08/27/16 12:55	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 12:55	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 12:55	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 12:55	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 12:55	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 12:55	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 12:55	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/21/16 12:34	08/27/16 12:55	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 12:55	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 12:55	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 12:55	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/21/16 12:34	08/27/16 12:55	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 12:55	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 12:55	1
Fluorene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 12:55	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/21/16 12:34	08/27/16 12:55	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 12:55	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 12:55	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 12:55	1
Anthracene	0.59	U	10	0.59	ug/L		08/21/16 12:34	08/27/16 12:55	1
Carbazole	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 12:55	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 12:55	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/21/16 12:34	08/27/16 12:55	1
Pyrene	0.86	U	10	0.86	ug/L		08/21/16 12:34	08/27/16 12:55	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/21/16 12:34	08/27/16 12:55	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/21/16 12:34	08/27/16 12:55	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/21/16 12:34	08/27/16 12:55	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 12:55	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/21/16 12:34	08/27/16 12:55	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/21/16 12:34	08/27/16 12:55	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 12:55	1
Acetophenone	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 12:55	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/21/16 12:34	08/27/16 12:55	1
Caprolactam	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 12:55	1
Atrazine	**1.4**	**J**	2.1	0.80	ug/L		08/21/16 12:34	08/27/16 12:55	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/21/16 12:34	08/27/16 12:55	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/21/16 12:34	08/27/16 12:55	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 12:55	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 12:55	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 12:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*90*		*30 - 130*	*08/21/16 12:34*	*08/27/16 12:55*	*1*
Phenol-d5 (Surr)	*32*		*15 - 110*	*08/21/16 12:34*	*08/27/16 12:55*	*1*
Terphenyl-d14 (Surr)	*90*		*30 - 130*	*08/21/16 12:34*	*08/27/16 12:55*	*1*
2,4,6-Tribromophenol (Surr)	*127*	*X*	*15 - 110*	*08/21/16 12:34*	*08/27/16 12:55*	*1*
2-Fluorophenol (Surr)	*48*		*15 - 110*	*08/21/16 12:34*	*08/27/16 12:55*	*1*
2-Fluorobiphenyl	*84*		*30 - 130*	*08/21/16 12:34*	*08/27/16 12:55*	*1*

Client Sample ID: OB-13-081616

Date Collected: 08/16/16 14:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-10

Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 08:31	1
PCB-1016	0.098	U F2	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 08:31	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 08:31	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 08:31	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 08:31	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 08:31	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 08:31	1
PCB-1260	0.084	U F2	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 08:31	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 08:31	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 08:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*74*		*30 - 150*	*08/22/16 19:33*	*08/23/16 08:31*	*1*
Tetrachloro-m-xylene	*47*	*p*	*30 - 150*	*08/22/16 19:33*	*08/23/16 08:31*	*1*
DCB Decachlorobiphenyl	*138*		*30 - 150*	*08/22/16 19:33*	*08/23/16 08:31*	*1*
DCB Decachlorobiphenyl	*112*		*30 - 150*	*08/22/16 19:33*	*08/23/16 08:31*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.63**		0.12	0.030	mg/L			08/19/16 15:00	1
Sulfate	**10.5**		0.60	0.11	mg/L			08/19/16 15:00	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:17	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 09:08	08/26/16 15:17	2
Barium	**5.7**		4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:17	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 09:08	08/26/16 15:17	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 09:08	08/26/16 15:17	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:17	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 15:17	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 15:17	2
Manganese	3.0	U	8.0	3.0	ug/L		08/26/16 09:08	08/26/16 15:17	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 15:17	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 09:08	08/26/16 15:17	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 09:08	08/26/16 15:17	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 09:08	08/26/16 15:17	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 09:08	08/26/16 15:17	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 09:08	08/26/16 15:17	2
Aluminum	**27.0**	**J**	40.0	13.5	ug/L		08/26/16 09:08	08/26/16 15:17	2
Sodium	**3680**		200	87.6	ug/L		08/26/16 09:08	08/26/16 15:17	2
Magnesium	**4230**		200	68.4	ug/L		08/26/16 09:08	08/26/16 15:17	2
Potassium	**1070**		200	74.8	ug/L		08/26/16 09:08	08/26/16 15:17	2
Calcium	**9770**		200	69.5	ug/L		08/26/16 09:08	08/26/16 15:17	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 09:08	08/26/16 15:17	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 09:08	08/26/16 15:17	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/25/16 10:28	08/25/16 23:56	2

Client Sample ID: OB-13-081616

Lab Sample ID: 460-118778-10

Date Collected: 08/16/16 14:00

Matrix: Water

Date Received: 08/17/16 15:10

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.71	U	2.0	0.71	ug/L		08/25/16 10:28	08/25/16 23:56	2
Barium	**5.7**		4.0	1.5	ug/L		08/25/16 10:28	08/25/16 23:56	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/25/16 10:28	08/25/16 23:56	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/25/16 10:28	08/25/16 23:56	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/25/16 23:56	2
Chromium	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/25/16 23:56	2
Copper	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/25/16 23:56	2
Manganese	3.0	U	8.0	3.0	ug/L		08/25/16 10:28	08/25/16 23:56	2
Nickel	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/25/16 23:56	2
Lead	0.44	U	1.2	0.44	ug/L		08/25/16 10:28	08/25/16 23:56	2
Antimony	0.76	U	2.0	0.76	ug/L		08/25/16 10:28	08/25/16 23:56	2
Selenium	0.79	U	10.0	0.79	ug/L		08/25/16 10:28	08/25/16 23:56	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/25/16 10:28	08/25/16 23:56	2
Zinc	6.5	U	16.0	6.5	ug/L		08/25/16 10:28	08/25/16 23:56	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/25/16 10:28	08/25/16 23:56	2
Sodium	**3210**		200	87.6	ug/L		08/25/16 10:28	08/25/16 23:56	2
Magnesium	**3890**		200	68.4	ug/L		08/25/16 10:28	08/25/16 23:56	2
Potassium	**1050**		200	74.8	ug/L		08/25/16 10:28	08/25/16 23:56	2
Calcium	**9530**		200	69.5	ug/L		08/25/16 10:28	08/25/16 23:56	2
Iron	49.1	U	120	49.1	ug/L		08/25/16 10:28	08/25/16 23:56	2
Thallium	0.31	U	0.80	0.31	ug/L		08/25/16 10:28	08/25/16 23:56	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 11:57	08/23/16 13:31	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 12:13	08/24/16 14:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/26/16 15:47	08/27/16 14:35	1
Bicarbonate Alkalinity as CaCO3	**38.1**		5.0	5.0	mg/L			08/22/16 13:34	1
Alkalinity	**38.1**		5.0	5.0	mg/L			08/22/16 13:34	1

Client Sample ID: OB-14A-081616

Lab Sample ID: 460-118778-11

Date Collected: 08/16/16 14:30

Matrix: Water

Date Received: 08/17/16 15:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 17:17	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 17:17	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*08/23/16 17:17*	*1*
4-Bromofluorobenzene	*99*		*70 - 130*		*08/23/16 17:17*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-14A-081616
Date Collected: 08/16/16 14:30
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-11
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 03:48	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 03:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 03:48	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 03:48	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 03:48	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 03:48	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 03:48	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 03:48	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 03:48	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 03:48	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 03:48	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 03:48	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 03:48	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 03:48	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 03:48	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 03:48	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 03:48	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 03:48	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 03:48	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 03:48	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 03:48	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 03:48	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 03:48	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 03:48	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 03:48	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 03:48	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 03:48	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 03:48	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 03:48	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 03:48	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 03:48	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 03:48	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 03:48	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 03:48	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 03:48	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 03:48	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 03:48	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 03:48	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 03:48	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 03:48	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 03:48	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 03:48	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 03:48	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 03:48	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 03:48	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 03:48	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 03:48	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 03:48	1

Client Sample ID: OB-14A-081616
Date Collected: 08/16/16 14:30
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-11
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/24/16 03:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		08/24/16 03:48	1
4-Bromofluorobenzene	99		70 - 130		08/24/16 03:48	1
Dibromofluoromethane (Surr)	101		70 - 130		08/24/16 03:48	1
Toluene-d8 (Surr)	98		70 - 130		08/24/16 03:48	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/21/16 12:34	08/26/16 19:51	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/21/16 12:34	08/26/16 19:51	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/21/16 12:34	08/26/16 19:51	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/26/16 19:51	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/21/16 12:34	08/26/16 19:51	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/26/16 19:51	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/21/16 12:34	08/26/16 19:51	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/21/16 12:34	08/26/16 19:51	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/21/16 12:34	08/27/16 16:19	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 16:19	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/21/16 12:34	08/27/16 16:19	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/21/16 12:34	08/27/16 16:19	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/21/16 12:34	08/27/16 16:19	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/21/16 12:34	08/27/16 16:19	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 16:19	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/21/16 12:34	08/27/16 16:19	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/21/16 12:34	08/27/16 16:19	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/21/16 12:34	08/27/16 16:19	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/21/16 12:34	08/27/16 16:19	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/21/16 12:34	08/27/16 16:19	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/21/16 12:34	08/27/16 16:19	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/21/16 12:34	08/27/16 16:19	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/21/16 12:34	08/27/16 16:19	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/21/16 12:34	08/27/16 16:19	1
Isophorone	0.70	U	10	0.70	ug/L		08/21/16 12:34	08/27/16 16:19	1
Naphthalene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 16:19	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/21/16 12:34	08/27/16 16:19	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/21/16 12:34	08/27/16 16:19	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 16:19	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 16:19	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 16:19	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 16:19	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 16:19	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 16:19	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/21/16 12:34	08/27/16 16:19	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 16:19	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 16:19	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 16:19	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-14A-081616
Date Collected: 08/16/16 14:30
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/21/16 12:34	08/27/16 16:19	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 16:19	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 16:19	1
Fluorene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 16:19	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/21/16 12:34	08/27/16 16:19	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 16:19	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 16:19	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 16:19	1
Anthracene	0.59	U	10	0.59	ug/L		08/21/16 12:34	08/27/16 16:19	1
Carbazole	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 16:19	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 16:19	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/21/16 12:34	08/27/16 16:19	1
Pyrene	0.86	U	10	0.86	ug/L		08/21/16 12:34	08/27/16 16:19	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/21/16 12:34	08/27/16 16:19	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/21/16 12:34	08/27/16 16:19	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/21/16 12:34	08/27/16 16:19	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 16:19	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/21/16 12:34	08/27/16 16:19	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/21/16 12:34	08/27/16 16:19	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 16:19	1
Acetophenone	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 16:19	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/21/16 12:34	08/27/16 16:19	1
Caprolactam	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 16:19	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/21/16 12:34	08/27/16 16:19	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/21/16 12:34	08/27/16 16:19	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/21/16 12:34	08/27/16 16:19	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 16:19	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 16:19	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*84*		*30 - 130*	*08/21/16 12:34*	*08/27/16 16:19*	*1*
Phenol-d5 (Surr)	*31*		*15 - 110*	*08/21/16 12:34*	*08/27/16 16:19*	*1*
Terphenyl-d14 (Surr)	*90*		*30 - 130*	*08/21/16 12:34*	*08/27/16 16:19*	*1*
2,4,6-Tribromophenol (Surr)	*124*	*X*	*15 - 110*	*08/21/16 12:34*	*08/27/16 16:19*	*1*
2-Fluorophenol (Surr)	*44*		*15 - 110*	*08/21/16 12:34*	*08/27/16 16:19*	*1*
2-Fluorobiphenyl	*79*		*30 - 130*	*08/21/16 12:34*	*08/27/16 16:19*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:27	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:27	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:27	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:27	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:27	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:27	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:27	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:27	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:27	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:27	1

Client Sample ID: OB-14A-081616

Date Collected: 08/16/16 14:30
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-11

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		30 - 150	08/22/16 19:33	08/23/16 11:27	1
Tetrachloro-m-xylene	80		30 - 150	08/22/16 19:33	08/23/16 11:27	1
DCB Decachlorobiphenyl	82		30 - 150	08/22/16 19:33	08/23/16 11:27	1
DCB Decachlorobiphenyl	102		30 - 150	08/22/16 19:33	08/23/16 11:27	1

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**0.99**		0.60	0.11	mg/L			08/19/16 15:18	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.33**	**D**	0.60	0.15	mg/L			08/24/16 23:41	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:44	2
Arsenic	**1.0**	**J**	2.0	0.71	ug/L		08/26/16 09:08	08/26/16 16:44	2
Barium	**532**		4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:44	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 09:08	08/26/16 16:44	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 09:08	08/26/16 16:44	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:44	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:44	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 16:44	2
Manganese	**1590**		8.0	3.0	ug/L		08/26/16 09:08	08/26/16 16:44	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 16:44	2
Lead	**0.56**	**J**	1.2	0.44	ug/L		08/26/16 09:08	08/26/16 16:44	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 09:08	08/26/16 16:44	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 09:08	08/26/16 16:44	2
Vanadium	**1.5**	**J**	4.0	1.4	ug/L		08/26/16 09:08	08/26/16 16:44	2
Zinc	**7.3**	**J**	16.0	6.5	ug/L		08/26/16 09:08	08/26/16 16:44	2
Aluminum	**27.7**	**J**	40.0	13.5	ug/L		08/26/16 09:08	08/26/16 16:44	2
Sodium	**22700**		200	87.6	ug/L		08/26/16 09:08	08/26/16 16:44	2
Magnesium	**13800**		200	68.4	ug/L		08/26/16 09:08	08/26/16 16:44	2
Potassium	**6930**		200	74.8	ug/L		08/26/16 09:08	08/26/16 16:44	2
Calcium	**141000**		200	69.5	ug/L		08/26/16 09:08	08/26/16 16:44	2
Iron	**41800**		120	49.1	ug/L		08/26/16 09:08	08/26/16 16:44	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 09:08	08/26/16 16:44	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:17	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/25/16 10:28	08/26/16 01:17	2
Barium	**324**		4.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:17	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/25/16 10:28	08/26/16 01:17	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/25/16 10:28	08/26/16 01:17	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:17	2
Chromium	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 01:17	2
Copper	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 01:17	2
Manganese	**1290**		8.0	3.0	ug/L		08/25/16 10:28	08/26/16 01:17	2
Nickel	1.6	U	4.0	1.6	ug/L		08/25/16 10:28	08/26/16 01:17	2
Lead	0.44	U	1.2	0.44	ug/L		08/25/16 10:28	08/26/16 01:17	2

Client Sample ID: OB-14A-081616

Lab Sample ID: 460-118778-11

Date Collected: 08/16/16 14:30

Matrix: Water

Date Received: 08/17/16 15:10

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.76	U	2.0	0.76	ug/L		08/25/16 10:28	08/26/16 01:17	2
Selenium	0.79	U	10.0	0.79	ug/L		08/25/16 10:28	08/26/16 01:17	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/25/16 10:28	08/26/16 01:17	2
Zinc	6.5	U	16.0	6.5	ug/L		08/25/16 10:28	08/26/16 01:17	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/25/16 10:28	08/26/16 01:17	2
Sodium	**18200**		200	87.6	ug/L		08/25/16 10:28	08/26/16 01:17	2
Magnesium	**10600**		200	68.4	ug/L		08/25/16 10:28	08/26/16 01:17	2
Potassium	**6000**		200	74.8	ug/L		08/25/16 10:28	08/26/16 01:17	2
Calcium	**122000**		200	69.5	ug/L		08/25/16 10:28	08/26/16 01:17	2
Iron	**2980**		120	49.1	ug/L		08/25/16 10:28	08/26/16 01:17	2
Thallium	0.31	U	0.80	0.31	ug/L		08/25/16 10:28	08/26/16 01:17	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 11:57	08/23/16 14:00	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 12:13	08/24/16 15:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/30/16 15:47	08/30/16 18:49	1
Bicarbonate Alkalinity as CaCO3	**391**		5.0	5.0	mg/L			08/22/16 13:34	1
Alkalinity	**391**		5.0	5.0	mg/L			08/22/16 13:34	1

Client Sample ID: OB-14B-081616

Lab Sample ID: 460-118778-12

Date Collected: 08/16/16 14:35

Matrix: Water

Date Received: 08/17/16 15:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 17:42	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 17:42	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*08/23/16 17:42*	*1*
4-Bromofluorobenzene	*95*		*70 - 130*		*08/23/16 17:42*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 04:16	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 04:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 04:16	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 04:16	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 04:16	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 04:16	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 04:16	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 04:16	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 04:16	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-14B-081616
Date Collected: 08/16/16 14:35
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 04:16	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 04:16	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 04:16	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 04:16	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 04:16	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 04:16	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 04:16	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 04:16	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 04:16	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 04:16	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 04:16	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 04:16	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 04:16	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 04:16	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 04:16	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 04:16	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 04:16	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 04:16	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 04:16	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 04:16	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 04:16	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 04:16	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 04:16	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 04:16	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 04:16	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 04:16	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 04:16	1
Methyl tert-butyl ether	**0.27**	**J**	1.0	0.13	ug/L			08/24/16 04:16	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 04:16	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 04:16	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 04:16	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 04:16	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 04:16	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 04:16	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 04:16	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 04:16	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 04:16	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 04:16	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 04:16	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 04:16*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*08/24/16 04:16*	*1*
4-Bromofluorobenzene	*100*		*70 - 130*		*08/24/16 04:16*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 130*		*08/24/16 04:16*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*08/24/16 04:16*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-14B-081616
Date Collected: 08/16/16 14:35
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-12
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/21/16 12:34	08/26/16 20:20	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/21/16 12:34	08/26/16 20:20	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/21/16 12:34	08/26/16 20:20	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/26/16 20:20	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/21/16 12:34	08/26/16 20:20	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/26/16 20:20	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/21/16 12:34	08/26/16 20:20	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/21/16 12:34	08/26/16 20:20	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/21/16 12:34	08/27/16 16:40	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 16:40	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/21/16 12:34	08/27/16 16:40	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/21/16 12:34	08/27/16 16:40	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/21/16 12:34	08/27/16 16:40	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/21/16 12:34	08/27/16 16:40	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 16:40	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/21/16 12:34	08/27/16 16:40	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/21/16 12:34	08/27/16 16:40	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/21/16 12:34	08/27/16 16:40	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/21/16 12:34	08/27/16 16:40	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/21/16 12:34	08/27/16 16:40	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/21/16 12:34	08/27/16 16:40	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/21/16 12:34	08/27/16 16:40	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/21/16 12:34	08/27/16 16:40	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/21/16 12:34	08/27/16 16:40	1
Isophorone	0.70	U	10	0.70	ug/L		08/21/16 12:34	08/27/16 16:40	1
Naphthalene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 16:40	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/21/16 12:34	08/27/16 16:40	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/21/16 12:34	08/27/16 16:40	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 16:40	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 16:40	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 16:40	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 16:40	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 16:40	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 16:40	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/21/16 12:34	08/27/16 16:40	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 16:40	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 16:40	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 16:40	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/21/16 12:34	08/27/16 16:40	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 16:40	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 16:40	1
Fluorene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 16:40	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/21/16 12:34	08/27/16 16:40	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 16:40	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 16:40	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 16:40	1
Anthracene	0.59	U	10	0.59	ug/L		08/21/16 12:34	08/27/16 16:40	1

Client Sample ID: OB-14B-081616
Date Collected: 08/16/16 14:35
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-12
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbazole	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 16:40	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 16:40	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/21/16 12:34	08/27/16 16:40	1
Pyrene	0.86	U	10	0.86	ug/L		08/21/16 12:34	08/27/16 16:40	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/21/16 12:34	08/27/16 16:40	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/21/16 12:34	08/27/16 16:40	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/21/16 12:34	08/27/16 16:40	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 16:40	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/21/16 12:34	08/27/16 16:40	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/21/16 12:34	08/27/16 16:40	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 16:40	1
Acetophenone	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 16:40	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/21/16 12:34	08/27/16 16:40	1
Caprolactam	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 16:40	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/21/16 12:34	08/27/16 16:40	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/21/16 12:34	08/27/16 16:40	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/21/16 12:34	08/27/16 16:40	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 16:40	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 16:40	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*84*		*30 - 130*	*08/21/16 12:34*	*08/27/16 16:40*	*1*
Phenol-d5 (Surr)	*32*		*15 - 110*	*08/21/16 12:34*	*08/27/16 16:40*	*1*
Terphenyl-d14 (Surr)	*94*		*30 - 130*	*08/21/16 12:34*	*08/27/16 16:40*	*1*
2,4,6-Tribromophenol (Surr)	*121*	*X*	*15 - 110*	*08/21/16 12:34*	*08/27/16 16:40*	*1*
2-Fluorophenol (Surr)	*48*		*15 - 110*	*08/21/16 12:34*	*08/27/16 16:40*	*1*
2-Fluorobiphenyl	*81*		*30 - 130*	*08/21/16 12:34*	*08/27/16 16:40*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:42	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:42	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:42	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:42	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:42	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:42	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:42	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:42	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:42	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*72*		*30 - 150*	*08/22/16 19:33*	*08/23/16 11:42*	*1*
Tetrachloro-m-xylene	*75*		*30 - 150*	*08/22/16 19:33*	*08/23/16 11:42*	*1*
DCB Decachlorobiphenyl	*104*		*30 - 150*	*08/22/16 19:33*	*08/23/16 11:42*	*1*
DCB Decachlorobiphenyl	*111*		*30 - 150*	*08/22/16 19:33*	*08/23/16 11:42*	*1*

Client Sample ID: OB-14B-081616

Date Collected: 08/16/16 14:35
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-12

Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**14.3**		0.60	0.11	mg/L			08/19/16 17:26	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**50.6**	**D**	2.40	0.60	mg/L			08/20/16 22:48	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:47	2
Arsenic	**0.79**	**J**	2.0	0.71	ug/L		08/26/16 09:08	08/26/16 16:47	2
Barium	**43.8**		4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:47	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 09:08	08/26/16 16:47	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 09:08	08/26/16 16:47	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:47	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:47	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 16:47	2
Manganese	**1770**		8.0	3.0	ug/L		08/26/16 09:08	08/26/16 16:47	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 16:47	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 09:08	08/26/16 16:47	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 09:08	08/26/16 16:47	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 09:08	08/26/16 16:47	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 09:08	08/26/16 16:47	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 09:08	08/26/16 16:47	2
Aluminum	**17.7**	**J**	40.0	13.5	ug/L		08/26/16 09:08	08/26/16 16:47	2
Sodium	**21800**		200	87.6	ug/L		08/26/16 09:08	08/26/16 16:47	2
Magnesium	**31400**		200	68.4	ug/L		08/26/16 09:08	08/26/16 16:47	2
Potassium	**3050**		200	74.8	ug/L		08/26/16 09:08	08/26/16 16:47	2
Calcium	**101000**		200	69.5	ug/L		08/26/16 09:08	08/26/16 16:47	2
Iron	**593**		120	49.1	ug/L		08/26/16 09:08	08/26/16 16:47	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 09:08	08/26/16 16:47	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:23	2
Arsenic	**0.89**	**J**	2.0	0.71	ug/L		08/25/16 10:31	08/26/16 01:23	2
Barium	**41.1**		4.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:23	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/25/16 10:31	08/26/16 01:23	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/25/16 10:31	08/26/16 01:23	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:23	2
Chromium	1.5	U	4.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:23	2
Copper	1.6	U	4.0	1.6	ug/L		08/25/16 10:31	08/26/16 01:23	2
Manganese	**1610**		8.0	3.0	ug/L		08/25/16 10:31	08/26/16 01:23	2
Nickel	1.6	U	4.0	1.6	ug/L		08/25/16 10:31	08/26/16 01:23	2
Lead	0.44	U	1.2	0.44	ug/L		08/25/16 10:31	08/26/16 01:23	2
Antimony	0.76	U	2.0	0.76	ug/L		08/25/16 10:31	08/26/16 01:23	2
Selenium	0.79	U	10.0	0.79	ug/L		08/25/16 10:31	08/26/16 01:23	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/25/16 10:31	08/26/16 01:23	2
Zinc	6.5	U	16.0	6.5	ug/L		08/25/16 10:31	08/26/16 01:23	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/25/16 10:31	08/26/16 01:23	2
Sodium	**19900**		200	87.6	ug/L		08/25/16 10:31	08/26/16 01:23	2

Client Sample ID: OB-14B-081616

Lab Sample ID: 460-118778-12

Date Collected: 08/16/16 14:35

Matrix: Water

Date Received: 08/17/16 15:10

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	**29400**		200	68.4	ug/L		08/25/16 10:31	08/26/16 01:23	2
Potassium	**3050**		200	74.8	ug/L		08/25/16 10:31	08/26/16 01:23	2
Calcium	**101000**		200	69.5	ug/L		08/25/16 10:31	08/26/16 01:23	2
Iron	49.1	U	120	49.1	ug/L		08/25/16 10:31	08/26/16 01:23	2
Thallium	0.31	U	0.80	0.31	ug/L		08/25/16 10:31	08/26/16 01:23	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 11:57	08/23/16 14:02	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 12:13	08/24/16 15:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/30/16 15:47	08/30/16 18:49	1
Bicarbonate Alkalinity as CaCO3	**339**		5.0	5.0	mg/L			08/22/16 13:34	1
Alkalinity	**339**		5.0	5.0	mg/L			08/22/16 13:34	1

Client Sample ID: OB-24-081616

Lab Sample ID: 460-118778-13

Date Collected: 08/16/16 15:40

Matrix: Water

Date Received: 08/17/16 15:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 18:07	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 18:07	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*08/23/16 18:07*	*1*
4-Bromofluorobenzene	*97*		*70 - 130*		*08/23/16 18:07*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 04:43	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 04:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 04:43	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 04:43	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 04:43	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 04:43	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 04:43	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 04:43	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 04:43	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 04:43	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 04:43	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 04:43	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 04:43	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 04:43	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 04:43	1

Client Sample ID: OB-24-081616
Date Collected: 08/16/16 15:40
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-13
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 04:43	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 04:43	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 04:43	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 04:43	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 04:43	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 04:43	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 04:43	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 04:43	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 04:43	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 04:43	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 04:43	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 04:43	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 04:43	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 04:43	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 04:43	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 04:43	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 04:43	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 04:43	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 04:43	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 04:43	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 04:43	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 04:43	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 04:43	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 04:43	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 04:43	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 04:43	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 04:43	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 04:43	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 04:43	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 04:43	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 04:43	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 04:43	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 04:43	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 04:43*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*08/24/16 04:43*	*1*
4-Bromofluorobenzene	*97*		*70 - 130*		*08/24/16 04:43*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*08/24/16 04:43*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/24/16 04:43*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/21/16 12:34	08/26/16 20:49	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/21/16 12:34	08/26/16 20:49	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/21/16 12:34	08/26/16 20:49	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/26/16 20:49	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/21/16 12:34	08/26/16 20:49	1

Client Sample ID: OB-24-081616
Date Collected: 08/16/16 15:40
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-13
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	0.011	J	0.021	0.0094	ug/L		08/21/16 12:34	08/26/16 20:49	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/21/16 12:34	08/26/16 20:49	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/21/16 12:34	08/26/16 20:49	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/21/16 12:34	08/27/16 17:01	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 17:01	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/21/16 12:34	08/27/16 17:01	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/21/16 12:34	08/27/16 17:01	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/21/16 12:34	08/27/16 17:01	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/21/16 12:34	08/27/16 17:01	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 17:01	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/21/16 12:34	08/27/16 17:01	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/21/16 12:34	08/27/16 17:01	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/21/16 12:34	08/27/16 17:01	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/21/16 12:34	08/27/16 17:01	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/21/16 12:34	08/27/16 17:01	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/21/16 12:34	08/27/16 17:01	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/21/16 12:34	08/27/16 17:01	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/21/16 12:34	08/27/16 17:01	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/21/16 12:34	08/27/16 17:01	1
Isophorone	0.70	U	10	0.70	ug/L		08/21/16 12:34	08/27/16 17:01	1
Naphthalene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 17:01	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/21/16 12:34	08/27/16 17:01	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/21/16 12:34	08/27/16 17:01	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 17:01	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 17:01	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 17:01	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 17:01	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 17:01	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 17:01	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/21/16 12:34	08/27/16 17:01	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 17:01	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 17:01	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 17:01	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/21/16 12:34	08/27/16 17:01	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 17:01	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 17:01	1
Fluorene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 17:01	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/21/16 12:34	08/27/16 17:01	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 17:01	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 17:01	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 17:01	1
Anthracene	0.59	U	10	0.59	ug/L		08/21/16 12:34	08/27/16 17:01	1
Carbazole	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 17:01	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 17:01	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/21/16 12:34	08/27/16 17:01	1
Pyrene	0.86	U	10	0.86	ug/L		08/21/16 12:34	08/27/16 17:01	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/21/16 12:34	08/27/16 17:01	1

Client Sample ID: OB-24-081616
Date Collected: 08/16/16 15:40
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-13
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.70	U	2.1	0.70	ug/L		08/21/16 12:34	08/27/16 17:01	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/21/16 12:34	08/27/16 17:01	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 17:01	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/21/16 12:34	08/27/16 17:01	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/21/16 12:34	08/27/16 17:01	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 17:01	1
Acetophenone	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 17:01	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/21/16 12:34	08/27/16 17:01	1
Caprolactam	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 17:01	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/21/16 12:34	08/27/16 17:01	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/21/16 12:34	08/27/16 17:01	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/21/16 12:34	08/27/16 17:01	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 17:01	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 17:01	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*91*		*30 - 130*	*08/21/16 12:34*	*08/27/16 17:01*	*1*
Phenol-d5 (Surr)	*21*		*15 - 110*	*08/21/16 12:34*	*08/27/16 17:01*	*1*
Terphenyl-d14 (Surr)	*88*		*30 - 130*	*08/21/16 12:34*	*08/27/16 17:01*	*1*
2,4,6-Tribromophenol (Surr)	*125*	*X*	*15 - 110*	*08/21/16 12:34*	*08/27/16 17:01*	*1*
2-Fluorophenol (Surr)	*36*		*15 - 110*	*08/21/16 12:34*	*08/27/16 17:01*	*1*
2-Fluorobiphenyl	*87*		*30 - 130*	*08/21/16 12:34*	*08/27/16 17:01*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:57	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:57	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:57	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:57	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:57	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 11:57	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:57	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:57	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:57	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 11:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*69*		*30 - 150*	*08/22/16 19:33*	*08/23/16 11:57*	*1*
Tetrachloro-m-xylene	*76*		*30 - 150*	*08/22/16 19:33*	*08/23/16 11:57*	*1*
DCB Decachlorobiphenyl	*99*		*30 - 150*	*08/22/16 19:33*	*08/23/16 11:57*	*1*
DCB Decachlorobiphenyl	*110*		*30 - 150*	*08/22/16 19:33*	*08/23/16 11:57*	*1*

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**88.2**	**D**	6.00	1.50	mg/L			08/20/16 23:06	50
Sulfate	**52.7**	**D**	30.0	5.25	mg/L			08/20/16 23:06	50

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:49	2

Client Sample ID: OB-24-081616
Date Collected: 08/16/16 15:40
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-13
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 09:08	08/26/16 16:49	2
Barium	**35.6**		4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:49	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 09:08	08/26/16 16:49	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 09:08	08/26/16 16:49	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:49	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:49	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 16:49	2
Manganese	**486**		8.0	3.0	ug/L		08/26/16 09:08	08/26/16 16:49	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 16:49	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 09:08	08/26/16 16:49	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 09:08	08/26/16 16:49	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 09:08	08/26/16 16:49	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 09:08	08/26/16 16:49	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 09:08	08/26/16 16:49	2
Aluminum	**40.9**		40.0	13.5	ug/L		08/26/16 09:08	08/26/16 16:49	2
Sodium	**17800**		200	87.6	ug/L		08/26/16 09:08	08/26/16 16:49	2
Magnesium	**26200**		200	68.4	ug/L		08/26/16 09:08	08/26/16 16:49	2
Potassium	**2250**		200	74.8	ug/L		08/26/16 09:08	08/26/16 16:49	2
Calcium	**95700**		200	69.5	ug/L		08/26/16 09:08	08/26/16 16:49	2
Iron	**86.2**	**J**	120	49.1	ug/L		08/26/16 09:08	08/26/16 16:49	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 09:08	08/26/16 16:49	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:29	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/25/16 10:31	08/26/16 01:29	2
Barium	**33.5**		4.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:29	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/25/16 10:31	08/26/16 01:29	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/25/16 10:31	08/26/16 01:29	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:29	2
Chromium	1.5	U	4.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:29	2
Copper	1.6	U	4.0	1.6	ug/L		08/25/16 10:31	08/26/16 01:29	2
Manganese	**40.0**		8.0	3.0	ug/L		08/25/16 10:31	08/26/16 01:29	2
Nickel	1.6	U	4.0	1.6	ug/L		08/25/16 10:31	08/26/16 01:29	2
Lead	0.44	U	1.2	0.44	ug/L		08/25/16 10:31	08/26/16 01:29	2
Antimony	0.76	U	2.0	0.76	ug/L		08/25/16 10:31	08/26/16 01:29	2
Selenium	0.79	U	10.0	0.79	ug/L		08/25/16 10:31	08/26/16 01:29	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/25/16 10:31	08/26/16 01:29	2
Zinc	6.5	U	16.0	6.5	ug/L		08/25/16 10:31	08/26/16 01:29	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/25/16 10:31	08/26/16 01:29	2
Sodium	**16500**		200	87.6	ug/L		08/25/16 10:31	08/26/16 01:29	2
Magnesium	**24100**		200	68.4	ug/L		08/25/16 10:31	08/26/16 01:29	2
Potassium	**2260**		200	74.8	ug/L		08/25/16 10:31	08/26/16 01:29	2
Calcium	**94600**		200	69.5	ug/L		08/25/16 10:31	08/26/16 01:29	2
Iron	49.1	U	120	49.1	ug/L		08/25/16 10:31	08/26/16 01:29	2
Thallium	0.31	U	0.80	0.31	ug/L		08/25/16 10:31	08/26/16 01:29	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 11:57	08/23/16 14:08	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 12:13	08/24/16 15:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/30/16 15:47	08/30/16 18:50	1
Bicarbonate Alkalinity as CaCO3	**226**		5.0	5.0	mg/L			08/22/16 13:34	1
Alkalinity	**226**		5.0	5.0	mg/L			08/22/16 13:34	1

Client Sample ID: RW-16-081616

Lab Sample ID: 460-118778-14

Date Collected: 08/16/16 15:45

Matrix: Water

Date Received: 08/17/16 15:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 18:32	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 18:32	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*08/23/16 18:32*	*1*
4-Bromofluorobenzene	*92*		*70 - 130*		*08/23/16 18:32*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 05:11	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 05:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 05:11	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 05:11	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 05:11	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 05:11	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 05:11	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 05:11	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 05:11	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 05:11	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 05:11	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 05:11	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 05:11	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 05:11	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 05:11	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 05:11	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 05:11	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 05:11	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 05:11	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 05:11	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 05:11	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 05:11	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 05:11	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 05:11	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 05:11	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 05:11	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 05:11	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 05:11	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 05:11	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 05:11	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: RW-16-081616
Date Collected: 08/16/16 15:45
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-14
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 05:11	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 05:11	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 05:11	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 05:11	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 05:11	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 05:11	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 05:11	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 05:11	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 05:11	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 05:11	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 05:11	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 05:11	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 05:11	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 05:11	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 05:11	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 05:11	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 05:11	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 05:11	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 05:11*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*08/24/16 05:11*	*1*
4-Bromofluorobenzene	*100*		*70 - 130*		*08/24/16 05:11*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*08/24/16 05:11*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*08/24/16 05:11*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/21/16 12:34	08/26/16 21:18	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/21/16 12:34	08/26/16 21:18	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/21/16 12:34	08/26/16 21:18	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/26/16 21:18	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/21/16 12:34	08/26/16 21:18	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/26/16 21:18	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/21/16 12:34	08/26/16 21:18	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/21/16 12:34	08/26/16 21:18	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/21/16 12:34	08/27/16 19:51	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 19:51	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/21/16 12:34	08/27/16 19:51	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/21/16 12:34	08/27/16 19:51	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/21/16 12:34	08/27/16 19:51	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/21/16 12:34	08/27/16 19:51	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 19:51	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/21/16 12:34	08/27/16 19:51	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/21/16 12:34	08/27/16 19:51	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: RW-16-081616
Date Collected: 08/16/16 15:45
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-14
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/21/16 12:34	08/27/16 19:51	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/21/16 12:34	08/27/16 19:51	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/21/16 12:34	08/27/16 19:51	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/21/16 12:34	08/27/16 19:51	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/21/16 12:34	08/27/16 19:51	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/21/16 12:34	08/27/16 19:51	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/21/16 12:34	08/27/16 19:51	1
Isophorone	0.70	U	10	0.70	ug/L		08/21/16 12:34	08/27/16 19:51	1
Naphthalene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 19:51	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/21/16 12:34	08/27/16 19:51	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/21/16 12:34	08/27/16 19:51	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 19:51	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 19:51	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/27/16 19:51	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 19:51	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 19:51	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 19:51	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/21/16 12:34	08/27/16 19:51	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 19:51	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/27/16 19:51	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 19:51	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/21/16 12:34	08/27/16 19:51	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 19:51	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 19:51	1
Fluorene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 19:51	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/21/16 12:34	08/27/16 19:51	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/27/16 19:51	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 19:51	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/27/16 19:51	1
Anthracene	0.59	U	10	0.59	ug/L		08/21/16 12:34	08/27/16 19:51	1
Carbazole	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/27/16 19:51	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 19:51	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/21/16 12:34	08/27/16 19:51	1
Pyrene	0.86	U	10	0.86	ug/L		08/21/16 12:34	08/27/16 19:51	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/21/16 12:34	08/27/16 19:51	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/21/16 12:34	08/27/16 19:51	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/21/16 12:34	08/27/16 19:51	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 19:51	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/21/16 12:34	08/27/16 19:51	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/21/16 12:34	08/27/16 19:51	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/27/16 19:51	1
Acetophenone	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 19:51	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/21/16 12:34	08/27/16 19:51	1
Caprolactam	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 19:51	1
Atrazine	**0.91**	**J**	2.1	0.80	ug/L		08/21/16 12:34	08/27/16 19:51	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/21/16 12:34	08/27/16 19:51	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/21/16 12:34	08/27/16 19:51	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 19:51	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 19:51	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: RW-16-081616
Date Collected: 08/16/16 15:45
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-14
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*93*		*30 - 130*	*08/21/16 12:34*	*08/27/16 19:51*	*1*
Phenol-d5 (Surr)	*33*		*15 - 110*	*08/21/16 12:34*	*08/27/16 19:51*	*1*
Terphenyl-d14 (Surr)	*93*		*30 - 130*	*08/21/16 12:34*	*08/27/16 19:51*	*1*
2,4,6-Tribromophenol (Surr)	*127*	*X*	*15 - 110*	*08/21/16 12:34*	*08/27/16 19:51*	*1*
2-Fluorophenol (Surr)	*51*		*15 - 110*	*08/21/16 12:34*	*08/27/16 19:51*	*1*
2-Fluorobiphenyl	*84*		*30 - 130*	*08/21/16 12:34*	*08/27/16 19:51*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 12:12	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 12:12	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 12:12	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 12:12	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 12:12	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 12:12	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 12:12	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 12:12	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 12:12	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 12:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*69*		*30 - 150*	*08/22/16 19:33*	*08/23/16 12:12*	*1*
Tetrachloro-m-xylene	*73*		*30 - 150*	*08/22/16 19:33*	*08/23/16 12:12*	*1*
DCB Decachlorobiphenyl	*105*		*30 - 150*	*08/22/16 19:33*	*08/23/16 12:12*	*1*
DCB Decachlorobiphenyl	*115*		*30 - 150*	*08/22/16 19:33*	*08/23/16 12:12*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**13.1**		0.60	0.11	mg/L			08/19/16 18:03	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**55.6**	**D**	2.40	0.60	mg/L			08/20/16 23:24	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:52	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 09:08	08/26/16 16:52	2
Barium	**38.3**		4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:52	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 09:08	08/26/16 16:52	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 09:08	08/26/16 16:52	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:52	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 16:52	2
Copper	**3.7**	**J**	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 16:52	2
Manganese	**5.3**	**J**	8.0	3.0	ug/L		08/26/16 09:08	08/26/16 16:52	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 16:52	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 09:08	08/26/16 16:52	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 09:08	08/26/16 16:52	2

Client Sample ID: RW-16-081616
Date Collected: 08/16/16 15:45
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-14
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 09:08	08/26/16 16:52	2
Vanadium	**1.6**	**J**	4.0	1.4	ug/L		08/26/16 09:08	08/26/16 16:52	2
Zinc	**6.6**	**J**	16.0	6.5	ug/L		08/26/16 09:08	08/26/16 16:52	2
Aluminum	**82.7**		40.0	13.5	ug/L		08/26/16 09:08	08/26/16 16:52	2
Sodium	**19300**		200	87.6	ug/L		08/26/16 09:08	08/26/16 16:52	2
Magnesium	**21000**		200	68.4	ug/L		08/26/16 09:08	08/26/16 16:52	2
Potassium	**1940**		200	74.8	ug/L		08/26/16 09:08	08/26/16 16:52	2
Calcium	**62100**		200	69.5	ug/L		08/26/16 09:08	08/26/16 16:52	2
Iron	**956**		120	49.1	ug/L		08/26/16 09:08	08/26/16 16:52	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 09:08	08/26/16 16:52	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:35	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/25/16 10:31	08/26/16 01:35	2
Barium	**39.0**		4.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:35	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/25/16 10:31	08/26/16 01:35	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/25/16 10:31	08/26/16 01:35	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:35	2
Chromium	1.5	U	4.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:35	2
Copper	1.6	U	4.0	1.6	ug/L		08/25/16 10:31	08/26/16 01:35	2
Manganese	**3.8**	**J**	8.0	3.0	ug/L		08/25/16 10:31	08/26/16 01:35	2
Nickel	1.6	U	4.0	1.6	ug/L		08/25/16 10:31	08/26/16 01:35	2
Lead	0.44	U	1.2	0.44	ug/L		08/25/16 10:31	08/26/16 01:35	2
Antimony	0.76	U	2.0	0.76	ug/L		08/25/16 10:31	08/26/16 01:35	2
Selenium	0.79	U	10.0	0.79	ug/L		08/25/16 10:31	08/26/16 01:35	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/25/16 10:31	08/26/16 01:35	2
Zinc	6.5	U	16.0	6.5	ug/L		08/25/16 10:31	08/26/16 01:35	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/25/16 10:31	08/26/16 01:35	2
Sodium	**19000**		200	87.6	ug/L		08/25/16 10:31	08/26/16 01:35	2
Magnesium	**21000**		200	68.4	ug/L		08/25/16 10:31	08/26/16 01:35	2
Potassium	**2070**		200	74.8	ug/L		08/25/16 10:31	08/26/16 01:35	2
Calcium	**66500**		200	69.5	ug/L		08/25/16 10:31	08/26/16 01:35	2
Iron	49.1	U	120	49.1	ug/L		08/25/16 10:31	08/26/16 01:35	2
Thallium	0.31	U	0.80	0.31	ug/L		08/25/16 10:31	08/26/16 01:35	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 11:57	08/23/16 14:10	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 12:13	08/24/16 15:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/30/16 15:47	08/30/16 18:51	1
Bicarbonate Alkalinity as CaCO3	**220**		5.0	5.0	mg/L			08/22/16 13:34	1
Alkalinity	**220**		5.0	5.0	mg/L			08/22/16 13:34	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-3-081616
Date Collected: 08/16/16 16:10
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-15
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 00:04	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 00:04	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 00:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*08/24/16 00:04*	*1*
4-Bromofluorobenzene	*88*		*70 - 130*		*08/24/16 00:04*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 05:39	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 05:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 05:39	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 05:39	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 05:39	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 05:39	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 05:39	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 05:39	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 05:39	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 05:39	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 05:39	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 05:39	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 05:39	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 05:39	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 05:39	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 05:39	1
Acetone	**19**		5.0	1.1	ug/L			08/24/16 05:39	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 05:39	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 05:39	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 05:39	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 05:39	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 05:39	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 05:39	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 05:39	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 05:39	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 05:39	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 05:39	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 05:39	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 05:39	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 05:39	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 05:39	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 05:39	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 05:39	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 05:39	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 05:39	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 05:39	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 05:39	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 05:39	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 05:39	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 05:39	1

Client Sample ID: OB-3-081616
Date Collected: 08/16/16 16:10
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-15
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 05:39	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 05:39	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 05:39	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 05:39	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 05:39	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 05:39	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 05:39	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 05:39	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 05:39*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*08/24/16 05:39*	*1*
4-Bromofluorobenzene	*102*		*70 - 130*		*08/24/16 05:39*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 130*		*08/24/16 05:39*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*08/24/16 05:39*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/21/16 12:34	08/26/16 21:46	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/21/16 12:34	08/26/16 21:46	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/21/16 12:34	08/26/16 21:46	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/26/16 21:46	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/21/16 12:34	08/26/16 21:46	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/21/16 12:34	08/26/16 21:46	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/21/16 12:34	08/26/16 21:46	1
Pentachlorophenol	**0.10**	**J**	0.21	0.080	ug/L		08/21/16 12:34	08/26/16 21:46	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/21/16 12:34	08/28/16 11:01	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/28/16 11:01	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/21/16 12:34	08/28/16 11:01	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/21/16 12:34	08/28/16 11:01	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/21/16 12:34	08/28/16 11:01	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/21/16 12:34	08/28/16 11:01	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/28/16 11:01	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/21/16 12:34	08/28/16 11:01	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/21/16 12:34	08/28/16 11:01	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/21/16 12:34	08/28/16 11:01	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/21/16 12:34	08/28/16 11:01	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/21/16 12:34	08/28/16 11:01	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/21/16 12:34	08/28/16 11:01	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/21/16 12:34	08/28/16 11:01	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/21/16 12:34	08/28/16 11:01	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/21/16 12:34	08/28/16 11:01	1
Isophorone	0.70	U	10	0.70	ug/L		08/21/16 12:34	08/28/16 11:01	1
Naphthalene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/28/16 11:01	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/21/16 12:34	08/28/16 11:01	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-3-081616
Date Collected: 08/16/16 16:10
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-15
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/21/16 12:34	08/28/16 11:01	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/28/16 11:01	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/28/16 11:01	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/21/16 12:34	08/28/16 11:01	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/28/16 11:01	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/28/16 11:01	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/28/16 11:01	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/21/16 12:34	08/28/16 11:01	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/28/16 11:01	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/21/16 12:34	08/28/16 11:01	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/28/16 11:01	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/21/16 12:34	08/28/16 11:01	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/28/16 11:01	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/28/16 11:01	1
Fluorene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/28/16 11:01	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/21/16 12:34	08/28/16 11:01	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/21/16 12:34	08/28/16 11:01	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/28/16 11:01	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/21/16 12:34	08/28/16 11:01	1
Anthracene	0.59	U	10	0.59	ug/L		08/21/16 12:34	08/28/16 11:01	1
Carbazole	0.89	U	10	0.89	ug/L		08/21/16 12:34	08/28/16 11:01	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/28/16 11:01	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/21/16 12:34	08/28/16 11:01	1
Pyrene	0.86	U	10	0.86	ug/L		08/21/16 12:34	08/28/16 11:01	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/21/16 12:34	08/28/16 11:01	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/21/16 12:34	08/28/16 11:01	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/21/16 12:34	08/28/16 11:01	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/28/16 11:01	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/21/16 12:34	08/28/16 11:01	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/21/16 12:34	08/28/16 11:01	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/21/16 12:34	08/28/16 11:01	1
Acetophenone	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/28/16 11:01	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/21/16 12:34	08/28/16 11:01	1
Caprolactam	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/28/16 11:01	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/21/16 12:34	08/28/16 11:01	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/21/16 12:34	08/28/16 11:01	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/21/16 12:34	08/28/16 11:01	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/28/16 11:01	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/28/16 11:01	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/28/16 11:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*95*		*30 - 130*	*08/21/16 12:34*	*08/28/16 11:01*	*1*
Phenol-d5 (Surr)	*27*		*15 - 110*	*08/21/16 12:34*	*08/28/16 11:01*	*1*
Terphenyl-d14 (Surr)	*108*		*30 - 130*	*08/21/16 12:34*	*08/28/16 11:01*	*1*
2,4,6-Tribromophenol (Surr)	*114*	*X*	*15 - 110*	*08/21/16 12:34*	*08/28/16 11:01*	*1*
2-Fluorophenol (Surr)	*55*		*15 - 110*	*08/21/16 12:34*	*08/28/16 11:01*	*1*
2-Fluorobiphenyl	*98*		*30 - 130*	*08/21/16 12:34*	*08/28/16 11:01*	*1*

Client Sample ID: OB-3-081616

Date Collected: 08/16/16 16:10
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-15

Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 12:26	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 12:26	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 12:26	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 12:26	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 12:26	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 12:26	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 12:26	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 12:26	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 12:26	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 12:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*87*		*30 - 150*	*08/22/16 19:33*	*08/23/16 12:26*	*1*
Tetrachloro-m-xylene	*96*		*30 - 150*	*08/22/16 19:33*	*08/23/16 12:26*	*1*
DCB Decachlorobiphenyl	*120*		*30 - 150*	*08/22/16 19:33*	*08/23/16 12:26*	*1*
DCB Decachlorobiphenyl	*127*		*30 - 150*	*08/22/16 19:33*	*08/23/16 12:26*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.23**		0.12	0.030	mg/L			08/19/16 18:21	1
Sulfate	**9.71**		0.60	0.11	mg/L			08/19/16 18:21	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 09:08	08/27/16 14:11	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 09:08	08/27/16 14:11	2
Barium	**3.1**	**J**	4.0	1.5	ug/L		08/26/16 09:08	08/27/16 14:11	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 09:08	08/27/16 14:11	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 09:08	08/27/16 14:11	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/27/16 14:11	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/27/16 14:11	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/27/16 14:11	2
Manganese	**5.0**	**J**	8.0	3.0	ug/L		08/26/16 09:08	08/27/16 14:11	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/27/16 14:11	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 09:08	08/27/16 14:11	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 09:08	08/27/16 14:11	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 09:08	08/27/16 14:11	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 09:08	08/27/16 14:11	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 09:08	08/27/16 14:11	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 09:08	08/27/16 14:11	2
Sodium	**3750**		200	87.6	ug/L		08/26/16 09:08	08/27/16 14:11	2
Magnesium	**5190**		200	68.4	ug/L		08/26/16 09:08	08/27/16 14:11	2
Potassium	**1140**		200	74.8	ug/L		08/26/16 09:08	08/27/16 14:11	2
Calcium	**16800**		200	69.5	ug/L		08/26/16 09:08	08/27/16 14:11	2
Iron	**1060**		120	49.1	ug/L		08/26/16 09:08	08/27/16 14:11	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 09:08	08/27/16 14:11	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:41	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-3-081616
Date Collected: 08/16/16 16:10
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-15
Matrix: Water

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.71	U	2.0	0.71	ug/L		08/25/16 10:31	08/26/16 01:41	2
Barium	**3.4**	**J**	4.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:41	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/25/16 10:31	08/26/16 01:41	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/25/16 10:31	08/26/16 01:41	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:41	2
Chromium	1.5	U	4.0	1.5	ug/L		08/25/16 10:31	08/26/16 01:41	2
Copper	1.6	U	4.0	1.6	ug/L		08/25/16 10:31	08/26/16 01:41	2
Manganese	**3.0**	**J**	8.0	3.0	ug/L		08/25/16 10:31	08/26/16 01:41	2
Nickel	1.6	U	4.0	1.6	ug/L		08/25/16 10:31	08/26/16 01:41	2
Lead	0.44	U	1.2	0.44	ug/L		08/25/16 10:31	08/26/16 01:41	2
Antimony	0.76	U	2.0	0.76	ug/L		08/25/16 10:31	08/26/16 01:41	2
Selenium	0.79	U	10.0	0.79	ug/L		08/25/16 10:31	08/26/16 01:41	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/25/16 10:31	08/26/16 01:41	2
Zinc	6.5	U	16.0	6.5	ug/L		08/25/16 10:31	08/26/16 01:41	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/25/16 10:31	08/26/16 01:41	2
Sodium	**3310**		200	87.6	ug/L		08/25/16 10:31	08/26/16 01:41	2
Magnesium	**4630**		200	68.4	ug/L		08/25/16 10:31	08/26/16 01:41	2
Potassium	**1150**		200	74.8	ug/L		08/25/16 10:31	08/26/16 01:41	2
Calcium	**16900**		200	69.5	ug/L		08/25/16 10:31	08/26/16 01:41	2
Iron	49.1	U	120	49.1	ug/L		08/25/16 10:31	08/26/16 01:41	2
Thallium	0.31	U	0.80	0.31	ug/L		08/25/16 10:31	08/26/16 01:41	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 11:57	08/23/16 14:11	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 12:13	08/24/16 16:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/30/16 15:47	08/30/16 18:55	1
Bicarbonate Alkalinity as CaCO3	**50.1**		5.0	5.0	mg/L			08/22/16 13:34	1
Alkalinity	**50.1**		5.0	5.0	mg/L			08/22/16 13:34	1

Surrogate Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)	DBFM (70-130)	TOL (70-130)
460-118778-1	TB-01-081616	101	103	106	102
460-118778-2	FB-01-081616	99	102	101	101
460-118778-3	OB-17-081616	101	100	103	99
460-118778-4	OB-18-081616	98	97	99	99
460-118778-5	OB-10-081616	99	96	99	99
460-118778-6	OB-16-081616	98	97	98	97
460-118778-7	OB-28-081616	102	100	102	101
460-118778-8	Dup-01-081616	100	99	101	100
460-118778-9	OB-29-081616	98	98	98	99
460-118778-10	OB-13-081616	98	96	97	100
460-118778-10 MS	OB-13-081616	102	101	103	102
460-118778-10 MSD	OB-13-081616	100	100	102	100
460-118778-11	OB-14A-081616	101	99	101	98
460-118778-12	OB-14B-081616	103	100	101	102
460-118778-13	OB-24-081616	97	97	98	98
460-118778-14	RW-16-081616	100	100	102	100
460-118778-15	OB-3-081616	103	102	103	102
LCS 460-386373/3	Lab Control Sample	102	103	104	104
MB 460-386373/7	Method Blank	101	100	103	101

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)
460-118778-1	TB-01-081616	104	88
460-118778-2	FB-01-081616	106	91
460-118778-3	OB-17-081616	104	96
460-118778-4	OB-18-081616	102	93
460-118778-5	OB-10-081616	106	91
460-118778-6	OB-16-081616	103	92
460-118778-7	OB-28-081616	105	91
460-118778-8	Dup-01-081616	102	92
460-118778-9	OB-29-081616	100	82
460-118778-10	OB-13-081616	99	83
460-118778-11	OB-14A-081616	105	99
460-118778-12	OB-14B-081616	100	95
460-118778-13	OB-24-081616	105	97
460-118778-14	RW-16-081616	103	92
460-118778-15	OB-3-081616	98	88
LCS 460-386244/4	Lab Control Sample	102	90
LCS 460-386381/4	Lab Control Sample	100	91

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		12DCE	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
LCSD 460-386244/5	Lab Control Sample Dup	102	96
LCSD 460-386381/5	Lab Control Sample Dup	100	97
MB 460-386244/8	Method Blank	105	91
MB 460-386381/8	Method Blank	100	86

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPH	TBP	2FP	FBP
Lab Sample ID	Client Sample ID	(30-130)	(15-110)	(30-130)	(15-110)	(15-110)	(30-130)
460-118778-2	FB-01-081616	91	32	94	132 X	47	84
460-118778-3	OB-17-081616	87	33	87	126 X	51	87
460-118778-4	OB-18-081616	92	31	86	129 X	48	78
460-118778-5	OB-10-081616	88	29	90	133 X	45	85
460-118778-6	OB-16-081616	85	30	84	129 X	46	80
460-118778-7	OB-28-081616	84	35	90	132 X	50	81
460-118778-8	Dup-01-081616	86	32	85	117 X	45	73
460-118778-9	OB-29-081616	94	32	91	136 X	50	79
460-118778-10	OB-13-081616	90	32	90	127 X	48	84
460-118778-10 MS	OB-13-081616	92	33	93	137 X	55	85
460-118778-10 MSD	OB-13-081616	91	31	93	125 X	51	88
460-118778-11	OB-14A-081616	84	31	90	124 X	44	79
460-118778-12	OB-14B-081616	84	32	94	121 X	48	81
460-118778-13	OB-24-081616	91	21	88	125 X	36	87
460-118778-14	RW-16-081616	93	33	93	127 X	51	84
460-118778-15	OB-3-081616	95	27	108	114 X	55	98
LCS 460-385957/2-A	Lab Control Sample	89	34	86	131 X	51	89
LCS 460-385957/3-A	Lab Control Sample	95	28	80	138 X	48	84
MB 460-385957/1-A	Method Blank	83	28	77	111 X	44	77

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)
460-118778-2	FB-01-081616	100	56 p	125	89

Surrogate Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	TCX1 (30-150)	TCX2 (30-150)	DCB1 (30-150)	DCB2 (30-150)
460-118778-3	OB-17-081616	85	51 p	120	97
460-118778-4	OB-18-081616	109	83	144	138
460-118778-5	OB-10-081616	69	53	134	133
460-118778-6	OB-16-081616	84	53 p	126	104
460-118778-7	OB-28-081616	61	37 p	131	105
460-118778-8	Dup-01-081616	54	56	103	109
460-118778-9	OB-29-081616	55	62	109	113
460-118778-10	OB-13-081616	74	47 p	138	112
460-118778-10 MS	OB-13-081616	103	65 p	138	108
460-118778-10 MSD	OB-13-081616	111	63 p	158 X	119
460-118778-11	OB-14A-081616	77	80	82	102
460-118778-12	OB-14B-081616	72	75	104	111
460-118778-13	OB-24-081616	69	76	99	110
460-118778-14	RW-16-081616	69	73	105	115
460-118778-15	OB-3-081616	87	96	120	127
LCS 460-386152/2-A	Lab Control Sample	85	64	121	116
MB 460-386152/1-A	Method Blank	101	82	119	114

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-386373/7
Matrix: Water
Analysis Batch: 386373

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 22:44	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 22:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 22:44	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 22:44	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 22:44	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 22:44	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 22:44	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 22:44	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 22:44	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 22:44	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 22:44	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 22:44	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 22:44	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 22:44	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 22:44	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 22:44	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 22:44	1
Benzene	0.090	U	1.0	0.090	ug/L			08/23/16 22:44	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 22:44	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 22:44	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 22:44	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 22:44	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 22:44	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 22:44	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 22:44	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/23/16 22:44	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 22:44	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 22:44	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 22:44	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 22:44	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/23/16 22:44	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 22:44	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 22:44	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 22:44	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 22:44	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 22:44	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 22:44	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 22:44	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 22:44	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 22:44	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 22:44	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 22:44	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 22:44	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 22:44	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 22:44	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 22:44	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 22:44	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 22:44	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/23/16 22:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		08/23/16 22:44	1
4-Bromofluorobenzene	100		70 - 130		08/23/16 22:44	1
Dibromofluoromethane (Surr)	103		70 - 130		08/23/16 22:44	1
Toluene-d8 (Surr)	101		70 - 130		08/23/16 22:44	1

Lab Sample ID: LCS 460-386373/3
Matrix: Water
Analysis Batch: 386373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	20.2		ug/L		101	70 - 130
1,1,2,2-Tetrachloroethane	20.0	21.0		ug/L		105	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.2		ug/L		101	70 - 130
1,1,2-Trichloroethane	20.0	20.9		ug/L		104	70 - 130
1,1-Dichloroethane	20.0	20.6		ug/L		103	70 - 130
1,1-Dichloroethene	20.0	19.2		ug/L		96	70 - 130
1,2,3-Trichlorobenzene	20.0	21.5		ug/L		107	70 - 130
1,2,4-Trichlorobenzene	20.0	22.1		ug/L		110	70 - 130
1,2-Dichlorobenzene	20.0	20.8		ug/L		104	70 - 130
1,2-Dichloroethane	20.0	20.1		ug/L		100	70 - 130
1,2-Dichloropropane	20.0	20.2		ug/L		101	70 - 130
1,3-Dichlorobenzene	20.0	20.6		ug/L		103	70 - 130
1,4-Dichlorobenzene	20.0	20.7		ug/L		103	70 - 130
2-Butanone (MEK)	100	94.4		ug/L		94	40 - 160
2-Hexanone	100	101		ug/L		101	40 - 160
4-Methyl-2-pentanone (MIBK)	100	107		ug/L		107	40 - 160
Acetone	100	80.8		ug/L		81	40 - 160
Benzene	20.0	20.7		ug/L		103	70 - 130
Bromoform	20.0	20.0		ug/L		100	70 - 130
Bromomethane	20.0	31.5		ug/L		158	40 - 160
Carbon disulfide	20.0	19.6		ug/L		98	40 - 160
Carbon tetrachloride	20.0	19.5		ug/L		98	70 - 130
Chlorobenzene	20.0	20.4		ug/L		102	70 - 130
Chlorobromomethane	20.0	20.6		ug/L		103	70 - 130
Chlorodibromomethane	20.0	20.4		ug/L		102	70 - 130
Chloroethane	20.0	25.4		ug/L		127	40 - 160
Chloroform	20.0	20.3		ug/L		102	70 - 130
Chloromethane	20.0	19.8		ug/L		99	40 - 160
cis-1,2-Dichloroethene	20.0	20.1		ug/L		100	70 - 130
cis-1,3-Dichloropropene	20.0	20.9		ug/L		104	70 - 130
Cyclohexane	20.0	19.0		ug/L		95	70 - 130
Dichlorobromomethane	20.0	20.0		ug/L		100	70 - 130
Dichlorodifluoromethane	20.0	20.8		ug/L		104	40 - 160
Ethylbenzene	20.0	20.3		ug/L		102	70 - 130
Isopropylbenzene	20.0	20.5		ug/L		102	70 - 130
Methyl acetate	100	109		ug/L		109	70 - 130
Methyl tert-butyl ether	20.0	21.0		ug/L		105	70 - 130
Methylcyclohexane	20.0	19.7		ug/L		98	70 - 130
Methylene Chloride	20.0	19.2		ug/L		96	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-386373/3
Matrix: Water
Analysis Batch: 386373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Styrene	20.0	20.7		ug/L		103	70 - 130
Tetrachloroethene	20.0	20.4		ug/L		102	70 - 130
Toluene	20.0	20.6		ug/L		103	70 - 130
trans-1,2-Dichloroethene	20.0	20.0		ug/L		100	70 - 130
trans-1,3-Dichloropropene	20.0	20.8		ug/L		104	70 - 130
Trichloroethene	20.0	19.6		ug/L		98	70 - 130
Trichlorofluoromethane	20.0	22.3		ug/L		112	40 - 160
Vinyl chloride	20.0	20.7		ug/L		104	70 - 130
Xylenes, Total	40.0	40.3		ug/L		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene	*103*		*70 - 130*
Dibromofluoromethane (Surr)	*104*		*70 - 130*
Toluene-d8 (Surr)	*104*		*70 - 130*

Lab Sample ID: 460-118778-10 MS
Matrix: Water
Analysis Batch: 386373

Client Sample ID: OB-13-081616
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.28	U	20.0	18.7		ug/L		93	70 - 130
1,1,2,2-Tetrachloroethane	0.19	U	20.0	21.4		ug/L		107	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	20.0	18.6		ug/L		93	70 - 130
1,1,2-Trichloroethane	0.080	U	20.0	20.3		ug/L		102	70 - 130
1,1-Dichloroethane	0.24	U	20.0	20.1		ug/L		100	70 - 130
1,1-Dichloroethene	0.34	U	20.0	18.2		ug/L		91	70 - 130
1,2,3-Trichlorobenzene	0.35	U	20.0	19.9		ug/L		99	70 - 130
1,2,4-Trichlorobenzene	0.27	U	20.0	20.8		ug/L		104	70 - 130
1,2-Dichlorobenzene	0.22	U	20.0	20.0		ug/L		100	70 - 130
1,2-Dichloroethane	0.25	U	20.0	19.6		ug/L		98	70 - 130
1,2-Dichloropropane	0.18	U	20.0	20.1		ug/L		100	70 - 130
1,3-Dichlorobenzene	0.33	U	20.0	19.8		ug/L		99	70 - 130
1,4-Dichlorobenzene	0.33	U	20.0	19.7		ug/L		98	70 - 130
2-Butanone (MEK)	2.2	U	100	96.1		ug/L		96	40 - 160
2-Hexanone	0.72	U	100	98.1		ug/L		98	40 - 160
4-Methyl-2-pentanone (MIBK)	0.63	U	100	104		ug/L		104	40 - 160
Acetone	1.1	U	100	79.9		ug/L		80	40 - 160
Benzene	0.090	U	20.0	20.3		ug/L		101	70 - 130
Bromoform	0.18	U	20.0	18.8		ug/L		94	70 - 130
Bromomethane	0.18	U	20.0	25.7		ug/L		129	40 - 160
Carbon disulfide	0.22	U	20.0	18.7		ug/L		93	40 - 160
Carbon tetrachloride	0.33	U	20.0	18.6		ug/L		93	70 - 130
Chlorobenzene	0.24	U	20.0	19.6		ug/L		98	70 - 130
Chlorobromomethane	0.30	U	20.0	20.5		ug/L		102	70 - 130
Chlorodibromomethane	0.22	U	20.0	19.4		ug/L		97	70 - 130
Chloroethane	0.37	U	20.0	22.8		ug/L		114	40 - 160

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-118778-10 MS
Matrix: Water
Analysis Batch: 386373

Client Sample ID: OB-13-081616
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	0.22	U	20.0	19.7		ug/L		99	70 - 130
Chloromethane	0.22	U	20.0	19.7		ug/L		98	40 - 160
cis-1,2-Dichloroethene	0.26	U	20.0	20.2		ug/L		101	70 - 130
cis-1,3-Dichloropropene	0.16	U	20.0	20.1		ug/L		100	70 - 130
Cyclohexane	0.26	U	20.0	18.4		ug/L		92	70 - 130
Dichlorobromomethane	0.15	U	20.0	19.5		ug/L		98	70 - 130
Dichlorodifluoromethane	0.14	U	20.0	18.3		ug/L		91	40 - 160
Ethylbenzene	0.30	U	20.0	19.7		ug/L		98	70 - 130
Isopropylbenzene	0.32	U	20.0	19.7		ug/L		99	70 - 130
Methyl acetate	0.58	U	100	99.8		ug/L		100	70 - 130
Methyl tert-butyl ether	0.13	U	20.0	21.5		ug/L		108	70 - 130
Methylcyclohexane	0.22	U	20.0	18.3		ug/L		92	70 - 130
Methylene Chloride	0.21	U	20.0	19.1		ug/L		96	70 - 130
Styrene	0.17	U	20.0	19.7		ug/L		98	70 - 130
Tetrachloroethene	0.12	U	20.0	18.7		ug/L		94	70 - 130
Toluene	0.25	U	20.0	19.7		ug/L		99	70 - 130
trans-1,2-Dichloroethene	0.18	U	20.0	19.5		ug/L		97	70 - 130
trans-1,3-Dichloropropene	0.19	U	20.0	19.8		ug/L		99	70 - 130
Trichloroethene	0.22	U	20.0	18.7		ug/L		94	70 - 130
Trichlorofluoromethane	0.15	U	20.0	20.3		ug/L		102	40 - 160
Vinyl chloride	0.060	U	20.0	20.2		ug/L		101	70 - 130
Xylenes, Total	0.28	U	40.0	39.3		ug/L		98	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene	*101*		*70 - 130*
Dibromofluoromethane (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Lab Sample ID: 460-118778-10 MSD
Matrix: Water
Analysis Batch: 386373

Client Sample ID: OB-13-081616
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.28	U	20.0	21.1		ug/L		105	70 - 130	12	20
1,1,2,2-Tetrachloroethane	0.19	U	20.0	22.5		ug/L		113	70 - 130	5	20
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	20.0	21.8		ug/L		109	70 - 130	16	20
1,1,2-Trichloroethane	0.080	U	20.0	21.6		ug/L		108	70 - 130	6	20
1,1-Dichloroethane	0.24	U	20.0	22.4		ug/L		112	70 - 130	11	20
1,1-Dichloroethene	0.34	U	20.0	21.1		ug/L		105	70 - 130	15	20
1,2,3-Trichlorobenzene	0.35	U	20.0	22.1		ug/L		111	70 - 130	11	20
1,2,4-Trichlorobenzene	0.27	U	20.0	22.4		ug/L		112	70 - 130	8	20
1,2-Dichlorobenzene	0.22	U	20.0	21.8		ug/L		109	70 - 130	9	20
1,2-Dichloroethane	0.25	U	20.0	21.1		ug/L		105	70 - 130	7	20
1,2-Dichloropropane	0.18	U	20.0	21.7		ug/L		108	70 - 130	8	20
1,3-Dichlorobenzene	0.33	U	20.0	21.5		ug/L		107	70 - 130	8	20
1,4-Dichlorobenzene	0.33	U	20.0	21.3		ug/L		106	70 - 130	8	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-118778-10 MSD
Matrix: Water
Analysis Batch: 386373

Client Sample ID: OB-13-081616
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	2.2	U	100	104		ug/L		104	40 - 160	8	20
2-Hexanone	0.72	U	100	105		ug/L		105	40 - 160	7	20
4-Methyl-2-pentanone (MIBK)	0.63	U	100	109		ug/L		109	40 - 160	5	20
Acetone	1.1	U	100	84.5		ug/L		84	40 - 160	6	20
Benzene	0.090	U	20.0	22.1		ug/L		110	70 - 130	9	20
Bromoform	0.18	U	20.0	20.6		ug/L		103	70 - 130	9	20
Bromomethane	0.18	U	20.0	30.8		ug/L		154	40 - 160	18	20
Carbon disulfide	0.22	U	20.0	21.1		ug/L		106	40 - 160	12	20
Carbon tetrachloride	0.33	U	20.0	20.7		ug/L		103	70 - 130	11	20
Chlorobenzene	0.24	U	20.0	21.9		ug/L		110	70 - 130	11	20
Chlorobromomethane	0.30	U	20.0	22.2		ug/L		111	70 - 130	8	20
Chlorodibromomethane	0.22	U	20.0	20.5		ug/L		102	70 - 130	6	20
Chloroethane	0.37	U	20.0	27.2		ug/L		136	40 - 160	18	20
Chloroform	0.22	U	20.0	21.3		ug/L		106	70 - 130	8	20
Chloromethane	0.22	U	20.0	22.0		ug/L		110	40 - 160	11	20
cis-1,2-Dichloroethene	0.26	U	20.0	21.3		ug/L		107	70 - 130	5	20
cis-1,3-Dichloropropene	0.16	U	20.0	21.4		ug/L		107	70 - 130	6	20
Cyclohexane	0.26	U	20.0	20.4		ug/L		102	70 - 130	11	20
Dichlorobromomethane	0.15	U	20.0	21.0		ug/L		105	70 - 130	7	20
Dichlorodifluoromethane	0.14	U	20.0	21.1		ug/L		106	40 - 160	14	20
Ethylbenzene	0.30	U	20.0	21.8		ug/L		109	70 - 130	10	20
Isopropylbenzene	0.32	U	20.0	22.1		ug/L		110	70 - 130	11	20
Methyl acetate	0.58	U	100	105		ug/L		105	70 - 130	5	20
Methyl tert-butyl ether	0.13	U	20.0	22.7		ug/L		113	70 - 130	5	20
Methylcyclohexane	0.22	U	20.0	21.3		ug/L		106	70 - 130	15	20
Methylene Chloride	0.21	U	20.0	20.9		ug/L		104	70 - 130	9	20
Styrene	0.17	U	20.0	22.1		ug/L		110	70 - 130	12	20
Tetrachloroethene	0.12	U	20.0	21.2		ug/L		106	70 - 130	13	20
Toluene	0.25	U	20.0	21.6		ug/L		108	70 - 130	9	20
trans-1,2-Dichloroethene	0.18	U	20.0	22.0		ug/L		110	70 - 130	12	20
trans-1,3-Dichloropropene	0.19	U	20.0	21.3		ug/L		106	70 - 130	7	20
Trichloroethene	0.22	U	20.0	21.1		ug/L		105	70 - 130	12	20
Trichlorofluoromethane	0.15	U	20.0	23.2		ug/L		116	40 - 160	13	20
Vinyl chloride	0.060	U	20.0	22.5		ug/L		113	70 - 130	11	20
Xylenes, Total	0.28	U	40.0	43.8		ug/L		110	70 - 130	11	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene	*100*		*70 - 130*
Dibromofluoromethane (Surr)	*102*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-386244/8
Matrix: Water
Analysis Batch: 386244

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 12:16	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 12:16	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 12:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*08/23/16 12:16*	*1*
4-Bromofluorobenzene	*91*		*70 - 130*		*08/23/16 12:16*	*1*

Lab Sample ID: LCS 460-386244/4
Matrix: Water
Analysis Batch: 386244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.500	0.343		ug/L		69	40 - 160
Ethylene Dibromide	0.500	0.532		ug/L		106	70 - 130
1,2,3-Trichloropropane	0.500	0.432		ug/L		86	40 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene	*90*		*70 - 130*

Lab Sample ID: LCSD 460-386244/5
Matrix: Water
Analysis Batch: 386244

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.500	0.356		ug/L		71	40 - 160	4	20
Ethylene Dibromide	0.500	0.526		ug/L		105	70 - 130	1	20
1,2,3-Trichloropropane	0.500	0.433		ug/L		87	40 - 160	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene	*96*		*70 - 130*

Lab Sample ID: MB 460-386381/8
Matrix: Water
Analysis Batch: 386381

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 22:49	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 22:49	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 22:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*08/23/16 22:49*	*1*
4-Bromofluorobenzene	*86*		*70 - 130*		*08/23/16 22:49*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-386381/4
Matrix: Water
Analysis Batch: 386381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dibromo-3-Chloropropane			0.500	0.318		ug/L		64	40 - 160		
Ethylene Dibromide			0.500	0.516		ug/L		103	70 - 130		
1,2,3-Trichloropropane			0.500	0.415		ug/L		83	40 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene	*91*		*70 - 130*

Lab Sample ID: LCSD 460-386381/5
Matrix: Water
Analysis Batch: 386381

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.500	0.315		ug/L		63	40 - 160	1	20
Ethylene Dibromide			0.500	0.486		ug/L		97	70 - 130	6	20
1,2,3-Trichloropropane			0.500	0.413		ug/L		83	40 - 160	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene	*97*		*70 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-385957/1-A
Matrix: Water
Analysis Batch: 387153

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 385957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/21/16 12:34	08/27/16 17:23	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/21/16 12:34	08/27/16 17:23	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/21/16 12:34	08/27/16 17:23	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/21/16 12:34	08/27/16 17:23	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/21/16 12:34	08/27/16 17:23	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/21/16 12:34	08/27/16 17:23	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/21/16 12:34	08/27/16 17:23	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/21/16 12:34	08/27/16 17:23	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		08/21/16 12:34	08/27/16 17:23	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/21/16 12:34	08/27/16 17:23	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/21/16 12:34	08/27/16 17:23	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/21/16 12:34	08/27/16 17:23	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/21/16 12:34	08/27/16 17:23	1
Pentachlorophenol	2.2	U	20	2.2	ug/L		08/21/16 12:34	08/27/16 17:23	1
Bis(2-chloroethyl)ether	0.12	U	1.0	0.12	ug/L		08/21/16 12:34	08/27/16 17:23	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/21/16 12:34	08/27/16 17:23	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/21/16 12:34	08/27/16 17:23	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/21/16 12:34	08/27/16 17:23	1
Isophorone	0.67	U	10	0.67	ug/L		08/21/16 12:34	08/27/16 17:23	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-385957/1-A
Matrix: Water
Analysis Batch: 387153

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 385957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.80	U	10	0.80	ug/L		08/21/16 12:34	08/27/16 17:23	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/21/16 12:34	08/27/16 17:23	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/21/16 12:34	08/27/16 17:23	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/21/16 12:34	08/27/16 17:23	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/21/16 12:34	08/27/16 17:23	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/21/16 12:34	08/27/16 17:23	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/21/16 12:34	08/27/16 17:23	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/21/16 12:34	08/27/16 17:23	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/21/16 12:34	08/27/16 17:23	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/21/16 12:34	08/27/16 17:23	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/21/16 12:34	08/27/16 17:23	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/21/16 12:34	08/27/16 17:23	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 17:23	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/21/16 12:34	08/27/16 17:23	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 17:23	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/21/16 12:34	08/27/16 17:23	1
Fluorene	0.80	U	10	0.80	ug/L		08/21/16 12:34	08/27/16 17:23	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/21/16 12:34	08/27/16 17:23	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/21/16 12:34	08/27/16 17:23	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 17:23	1
Hexachlorobenzene	0.47	U	1.0	0.47	ug/L		08/21/16 12:34	08/27/16 17:23	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/21/16 12:34	08/27/16 17:23	1
Anthracene	0.57	U	10	0.57	ug/L		08/21/16 12:34	08/27/16 17:23	1
Carbazole	0.85	U	10	0.85	ug/L		08/21/16 12:34	08/27/16 17:23	1
Di-n-butyl phthalate	0.82	U	10	0.82	ug/L		08/21/16 12:34	08/27/16 17:23	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/21/16 12:34	08/27/16 17:23	1
Pyrene	0.83	U	10	0.83	ug/L		08/21/16 12:34	08/27/16 17:23	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/21/16 12:34	08/27/16 17:23	1
Benzo[a]anthracene	0.55	U	1.0	0.55	ug/L		08/21/16 12:34	08/27/16 17:23	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/21/16 12:34	08/27/16 17:23	1
Bis(2-ethylhexyl) phthalate	0.72	U	2.0	0.72	ug/L		08/21/16 12:34	08/27/16 17:23	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/21/16 12:34	08/27/16 17:23	1
Benzo[b]fluoranthene	0.44	U	1.0	0.44	ug/L		08/21/16 12:34	08/27/16 17:23	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/21/16 12:34	08/27/16 17:23	1
Benzo[a]pyrene	0.16	U	1.0	0.16	ug/L		08/21/16 12:34	08/27/16 17:23	1
Indeno[1,2,3-cd]pyrene	0.21	U	1.0	0.21	ug/L		08/21/16 12:34	08/27/16 17:23	1
Dibenz(a,h)anthracene	0.090	U	1.0	0.090	ug/L		08/21/16 12:34	08/27/16 17:23	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/21/16 12:34	08/27/16 17:23	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/21/16 12:34	08/27/16 17:23	1
Acetophenone	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 17:23	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/21/16 12:34	08/27/16 17:23	1
Caprolactam	1.1	U	10	1.1	ug/L		08/21/16 12:34	08/27/16 17:23	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/21/16 12:34	08/27/16 17:23	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/21/16 12:34	08/27/16 17:23	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/21/16 12:34	08/27/16 17:23	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/21/16 12:34	08/27/16 17:23	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/21/16 12:34	08/27/16 17:23	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/21/16 12:34	08/27/16 17:23	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-385957/1-A
Matrix: Water
Analysis Batch: 387153

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 385957

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	83		30 - 130	08/21/16 12:34	08/27/16 17:23	1
Phenol-d5 (Surr)	28		15 - 110	08/21/16 12:34	08/27/16 17:23	1
Terphenyl-d14 (Surr)	77		30 - 130	08/21/16 12:34	08/27/16 17:23	1
2,4,6-Tribromophenol (Surr)	111	X	15 - 110	08/21/16 12:34	08/27/16 17:23	1
2-Fluorophenol (Surr)	44		15 - 110	08/21/16 12:34	08/27/16 17:23	1
2-Fluorobiphenyl	77		30 - 130	08/21/16 12:34	08/27/16 17:23	1

Lab Sample ID: LCS 460-385957/2-A
Matrix: Water
Analysis Batch: 387153

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 385957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	80.0	29.9		ug/L		37	20 - 160
2-Chlorophenol	80.0	62.9		ug/L		79	70 - 130
2-Methylphenol	80.0	48.0	*	ug/L		60	70 - 130
4-Methylphenol	80.0	49.9		ug/L		62	20 - 160
2-Nitrophenol	80.0	76.2		ug/L		95	70 - 130
2,4-Dimethylphenol	80.0	71.9		ug/L		90	70 - 130
2,4-Dichlorophenol	80.0	70.1		ug/L		88	70 - 130
4-Chloro-3-methylphenol	80.0	76.9		ug/L		96	20 - 160
2,4,6-Trichlorophenol	80.0	87.1		ug/L		109	70 - 130
2,4,5-Trichlorophenol	80.0	83.7		ug/L		105	20 - 160
2,4-Dinitrotoluene	80.0	79.9		ug/L		100	70 - 130
4-Nitrophenol	160	64.1		ug/L		40	20 - 160
4,6-Dinitro-2-methylphenol	160	146		ug/L		91	20 - 160
Pentachlorophenol	160	173		ug/L		108	20 - 160
Bis(2-chloroethyl)ether	80.0	60.4		ug/L		75	70 - 130
N-Nitrosodi-n-propylamine	80.0	66.8		ug/L		83	70 - 130
Hexachloroethane	80.0	52.8		ug/L		66	20 - 160
Nitrobenzene	80.0	61.5		ug/L		77	70 - 130
Isophorone	80.0	64.6		ug/L		81	70 - 130
Naphthalene	80.0	70.3		ug/L		88	70 - 130
4-Chloroaniline	80.0	68.7		ug/L		86	20 - 160
Hexachlorobutadiene	80.0	66.0		ug/L		83	70 - 130
2-Methylnaphthalene	80.0	66.2		ug/L		83	70 - 130
Hexachlorocyclopentadiene	80.0	53.2		ug/L		66	20 - 160
2-Chloronaphthalene	80.0	72.9		ug/L		91	70 - 130
2-Nitroaniline	80.0	69.6		ug/L		87	20 - 160
Dimethyl phthalate	80.0	76.7		ug/L		96	70 - 130
Acenaphthylene	80.0	69.3		ug/L		87	70 - 130
2,6-Dinitrotoluene	80.0	77.6		ug/L		97	70 - 130
3-Nitroaniline	80.0	69.5		ug/L		87	20 - 160
Acenaphthene	80.0	68.5		ug/L		86	70 - 130
Dibenzofuran	80.0	72.6		ug/L		91	70 - 130
2,4-Dinitrophenol	160	113		ug/L		71	20 - 160
Diethyl phthalate	80.0	72.9		ug/L		91	70 - 130
4-Chlorophenyl phenyl ether	80.0	83.3		ug/L		104	70 - 130
Fluorene	80.0	71.8		ug/L		90	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-385957/2-A
Matrix: Water
Analysis Batch: 387153

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 385957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Nitroaniline	80.0	79.8		ug/L		100	20 - 160
N-Nitrosodiphenylamine	80.0	76.4		ug/L		96	70 - 130
4-Bromophenyl phenyl ether	80.0	73.7		ug/L		92	70 - 130
Hexachlorobenzene	80.0	75.7		ug/L		95	70 - 130
Phenanthrene	80.0	74.5		ug/L		93	70 - 130
Anthracene	80.0	72.3		ug/L		90	70 - 130
Carbazole	80.0	75.4		ug/L		94	70 - 130
Di-n-butyl phthalate	80.0	75.2		ug/L		94	70 - 130
Fluoranthene	80.0	84.0		ug/L		105	70 - 130
Pyrene	80.0	74.5		ug/L		93	70 - 130
Butyl benzyl phthalate	80.0	74.2		ug/L		93	70 - 130
Benzo[a]anthracene	80.0	74.0		ug/L		93	70 - 130
Chrysene	80.0	80.0		ug/L		100	70 - 130
Bis(2-ethylhexyl) phthalate	80.0	78.8		ug/L		98	70 - 130
Di-n-octyl phthalate	80.0	78.1		ug/L		98	70 - 130
Benzo[b]fluoranthene	80.0	82.4		ug/L		103	70 - 130
Benzo[k]fluoranthene	80.0	73.9		ug/L		92	70 - 130
Benzo[a]pyrene	80.0	79.7		ug/L		100	70 - 130
Indeno[1,2,3-cd]pyrene	80.0	102		ug/L		127	70 - 130
Dibenz(a,h)anthracene	80.0	88.6		ug/L		111	70 - 130
Benzo[g,h,i]perylene	80.0	85.5		ug/L		107	70 - 130
1,1'-Biphenyl	80.0	70.0		ug/L		87	70 - 130
Acetophenone	80.0	86.0		ug/L		107	70 - 130
2,2'-oxybis[1-chloropropane]	80.0	59.8		ug/L		75	70 - 130
1,2,4,5-Tetrachlorobenzene	80.0	79.0		ug/L		99	70 - 130
2,3,4,6-Tetrachlorophenol	80.0	90.8		ug/L		113	70 - 130
3,3'-Dichlorobenzidine	80.0	86.7		ug/L		108	70 - 130
Bis(2-chloroethoxy)methane	80.0	68.4		ug/L		85	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*89*		*30 - 130*
Phenol-d5 (Surr)	*34*		*15 - 110*
Terphenyl-d14 (Surr)	*86*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*131*	*X*	*15 - 110*
2-Fluorophenol (Surr)	*51*		*15 - 110*
2-Fluorobiphenyl	*89*		*30 - 130*

Lab Sample ID: LCS 460-385957/3-A
Matrix: Water
Analysis Batch: 387153

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 385957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzaldehyde	160	142		ug/L		89	20 - 160
Caprolactam	160	43.8		ug/L		27	20 - 160
Atrazine	160	141		ug/L		88	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-385957/3-A
Matrix: Water
Analysis Batch: 387153

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 385957

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*95*		*30 - 130*
Phenol-d5 (Surr)	*28*		*15 - 110*
Terphenyl-d14 (Surr)	*80*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*138*	*X*	*15 - 110*
2-Fluorophenol (Surr)	*48*		*15 - 110*
2-Fluorobiphenyl	*84*		*30 - 130*

Lab Sample ID: 460-118778-10 MS
Matrix: Water
Analysis Batch: 387153

Client Sample ID: OB-13-081616
Prep Type: Total/NA
Prep Batch: 385957

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.43	U	83.3	31.4		ug/L		38	20 - 160
2-Chlorophenol	0.77	U	83.3	70.7		ug/L		85	70 - 130
2-Methylphenol	1.3	U F1 *	83.3	52.2	F1 *	ug/L		63	70 - 130
4-Methylphenol	0.91	U	83.3	55.9		ug/L		67	20 - 160
2-Nitrophenol	0.61	U	83.3	85.3		ug/L		102	70 - 130
2,4-Dimethylphenol	0.95	U	83.3	80.1		ug/L		96	70 - 130
2,4-Dichlorophenol	0.66	U	83.3	74.6		ug/L		89	70 - 130
4-Chloro-3-methylphenol	0.79	U	83.3	82.5		ug/L		99	20 - 160
2,4,6-Trichlorophenol	0.55	U	83.3	90.6		ug/L		109	20 - 160
2,4,5-Trichlorophenol	0.51	U	83.3	90.3		ug/L		108	20 - 160
2,4-Dinitrotoluene	1.1	U	83.3	86.4		ug/L		104	70 - 130
4-Nitrophenol	4.8	U	167	77.9		ug/L		47	20 - 160
4,6-Dinitro-2-methylphenol	2.1	U	167	190		ug/L		114	20 - 160
Pentachlorophenol	2.3	U	167	217		ug/L		130	20 - 160
Bis(2-chloroethyl)ether	0.13	U	83.3	67.7		ug/L		81	70 - 130
N-Nitrosodi-n-propylamine	0.86	U	83.3	76.2		ug/L		91	70 - 130
Hexachloroethane	0.094	U	83.3	67.4		ug/L		81	20 - 160
Nitrobenzene	0.51	U	83.3	66.3		ug/L		80	70 - 130
Isophorone	0.70	U	83.3	70.9		ug/L		85	70 - 130
Naphthalene	0.83	U	83.3	75.9		ug/L		91	70 - 130
4-Chloroaniline	0.76	U	83.3	73.6		ug/L		88	20 - 160
Hexachlorobutadiene	0.79	U	83.3	74.7		ug/L		90	70 - 130
2-Methylnaphthalene	0.92	U	83.3	74.9		ug/L		90	70 - 130
Hexachlorocyclopentadiene	0.64	U	83.3	61.9		ug/L		74	20 - 160
2-Chloronaphthalene	0.64	U	83.3	77.9		ug/L		94	70 - 130
2-Nitroaniline	0.68	U	83.3	79.9		ug/L		96	20 - 160
Dimethyl phthalate	1.0	U	83.3	82.2		ug/L		99	70 - 130
Acenaphthylene	0.68	U	83.3	74.3		ug/L		89	70 - 130
2,6-Dinitrotoluene	0.92	U	83.3	80.6		ug/L		97	70 - 130
3-Nitroaniline	0.85	U	83.3	74.5		ug/L		89	20 - 160
Acenaphthene	0.92	U	83.3	72.8		ug/L		87	70 - 130
Dibenzofuran	0.89	U	83.3	79.6		ug/L		96	70 - 130
2,4-Dinitrophenol	2.5	U	167	169		ug/L		102	20 - 160
Diethyl phthalate	1.0	U	83.3	77.7		ug/L		93	70 - 130
4-Chlorophenyl phenyl ether	1.0	U	83.3	84.4		ug/L		101	70 - 130
Fluorene	0.83	U	83.3	73.7		ug/L		88	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-118778-10 MS
Matrix: Water
Analysis Batch: 387153

Client Sample ID: OB-13-081616
Prep Type: Total/NA
Prep Batch: 385957

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Nitroaniline	0.50	U	83.3	79.2		ug/L		95	20 - 160
N-Nitrosodiphenylamine	0.77	U	83.3	77.7		ug/L		93	70 - 130
4-Bromophenyl phenyl ether	1.1	U	83.3	81.1		ug/L		97	70 - 130
Hexachlorobenzene	0.49	U	83.3	80.3		ug/L		96	70 - 130
Phenanthrene	0.68	U	83.3	84.7		ug/L		102	70 - 130
Anthracene	0.59	U	83.3	75.6		ug/L		91	70 - 130
Carbazole	0.89	U	83.3	86.0		ug/L		103	70 - 130
Di-n-butyl phthalate	0.85	U	83.3	84.7		ug/L		102	70 - 130
Fluoranthene	0.75	U	83.3	92.5		ug/L		111	70 - 130
Pyrene	0.86	U	83.3	83.2		ug/L		100	70 - 130
Butyl benzyl phthalate	0.63	U	83.3	86.5		ug/L		104	70 - 130
Benzo[a]anthracene	0.57	U	83.3	85.6		ug/L		103	70 - 130
Chrysene	0.70	U	83.3	94.2		ug/L		113	70 - 130
Bis(2-ethylhexyl) phthalate	0.75	U	83.3	85.8		ug/L		103	70 - 130
Di-n-octyl phthalate	0.72	U	83.3	85.7		ug/L		103	70 - 130
Benzo[b]fluoranthene	0.46	U	83.3	87.8		ug/L		105	70 - 130
Benzo[k]fluoranthene	0.19	U	83.3	84.7		ug/L		102	70 - 130
Benzo[a]pyrene	0.17	U	83.3	88.0		ug/L		106	70 - 130
Indeno[1,2,3-cd]pyrene	0.22	U F1	83.3	91.5		ug/L		110	70 - 130
Dibenz(a,h)anthracene	0.094	U	83.3	100		ug/L		120	70 - 130
Benzo[g,h,i]perylene	0.78	U	83.3	91.9		ug/L		110	70 - 130
1,1'-Biphenyl	0.66	U	83.3	78.5		ug/L		94	70 - 130
Acetophenone	1.1	U	83.3	96.5		ug/L		116	70 - 130
Benzaldehyde	0.90	U	167	156		ug/L		93	20 - 160
Caprolactam	1.1	U	167	56.1		ug/L		34	20 - 160
Atrazine	1.4	J	167	171		ug/L		102	70 - 130
2,2'-oxybis[1-chloropropane]	0.97	U	83.3	72.8		ug/L		87	70 - 130
1,2,4,5-Tetrachlorobenzene	0.45	U	83.3	82.6		ug/L		99	70 - 130
2,3,4,6-Tetrachlorophenol	0.72	U	83.3	98.3		ug/L		118	70 - 130
3,3'-Dichlorobenzidine	1.1	U	83.3	96.0		ug/L		115	70 - 130
Bis(2-chloroethoxy)methane	0.72	U	83.3	73.1		ug/L		88	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*92*		*30 - 130*
Phenol-d5 (Surr)	*33*		*15 - 110*
Terphenyl-d14 (Surr)	*93*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*137*	*X*	*15 - 110*
2-Fluorophenol (Surr)	*55*		*15 - 110*
2-Fluorobiphenyl	*85*		*30 - 130*

Lab Sample ID: 460-118778-10 MSD
Matrix: Water
Analysis Batch: 387153

Client Sample ID: OB-13-081616
Prep Type: Total/NA
Prep Batch: 385957

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.43	U	80.0	27.6		ug/L		34	20 - 160	13	20
2-Chlorophenol	0.77	U	80.0	68.3		ug/L		85	70 - 130	3	20
2-Methylphenol	1.3	U F1 *	80.0	50.6	F1 *	ug/L		63	70 - 130	3	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-118778-10 MSD | **Client Sample ID: OB-13-081616**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 387153 | **Prep Batch: 385957**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Methylphenol	0.91	U	80.0	55.0		ug/L		69	20 - 160	2	20
2-Nitrophenol	0.61	U	80.0	79.1		ug/L		99	70 - 130	7	20
2,4-Dimethylphenol	0.95	U	80.0	75.6		ug/L		95	70 - 130	6	20
2,4-Dichlorophenol	0.66	U	80.0	73.0		ug/L		91	70 - 130	2	20
4-Chloro-3-methylphenol	0.79	U	80.0	79.4		ug/L		99	20 - 160	4	20
2,4,6-Trichlorophenol	0.55	U	80.0	86.9		ug/L		109	20 - 160	4	20
2,4,5-Trichlorophenol	0.51	U	80.0	83.6		ug/L		105	20 - 160	8	20
2,4-Dinitrotoluene	1.1	U	80.0	85.2		ug/L		107	70 - 130	1	20
4-Nitrophenol	4.8	U	160	67.6		ug/L		42	20 - 160	14	20
4,6-Dinitro-2-methylphenol	2.1	U	160	167		ug/L		105	20 - 160	13	20
Pentachlorophenol	2.3	U	160	208		ug/L		130	20 - 160	4	20
Bis(2-chloroethyl)ether	0.13	U	80.0	62.7		ug/L		78	70 - 130	8	20
N-Nitrosodi-n-propylamine	0.86	U	80.0	73.9		ug/L		92	70 - 130	3	20
Hexachloroethane	0.094	U	80.0	62.1		ug/L		78	20 - 160	8	20
Nitrobenzene	0.51	U	80.0	66.2		ug/L		83	70 - 130	0	20
Isophorone	0.70	U	80.0	64.9		ug/L		81	70 - 130	9	20
Naphthalene	0.83	U	80.0	71.0		ug/L		89	70 - 130	7	20
4-Chloroaniline	0.76	U	80.0	68.8		ug/L		86	20 - 160	7	20
Hexachlorobutadiene	0.79	U	80.0	72.9		ug/L		91	70 - 130	2	20
2-Methylnaphthalene	0.92	U	80.0	70.7		ug/L		88	70 - 130	6	20
Hexachlorocyclopentadiene	0.64	U	80.0	59.2		ug/L		74	20 - 160	4	20
2-Chloronaphthalene	0.64	U	80.0	75.6		ug/L		94	70 - 130	3	20
2-Nitroaniline	0.68	U	80.0	75.1		ug/L		94	20 - 160	6	20
Dimethyl phthalate	1.0	U	80.0	74.1		ug/L		93	70 - 130	10	20
Acenaphthylene	0.68	U	80.0	70.1		ug/L		88	70 - 130	6	20
2,6-Dinitrotoluene	0.92	U	80.0	84.2		ug/L		105	70 - 130	4	20
3-Nitroaniline	0.85	U	80.0	63.7		ug/L		80	20 - 160	16	20
Acenaphthene	0.92	U	80.0	68.0		ug/L		85	70 - 130	7	20
Dibenzofuran	0.89	U	80.0	76.0		ug/L		95	70 - 130	5	20
2,4-Dinitrophenol	2.5	U	160	143		ug/L		89	20 - 160	17	20
Diethyl phthalate	1.0	U	80.0	76.8		ug/L		96	70 - 130	1	20
4-Chlorophenyl phenyl ether	1.0	U	80.0	86.5		ug/L		108	70 - 130	2	20
Fluorene	0.83	U	80.0	76.0		ug/L		95	70 - 130	3	20
4-Nitroaniline	0.50	U	80.0	80.2		ug/L		100	20 - 160	1	20
N-Nitrosodiphenylamine	0.77	U	80.0	74.0		ug/L		92	70 - 130	5	20
4-Bromophenyl phenyl ether	1.1	U	80.0	83.6		ug/L		104	70 - 130	3	20
Hexachlorobenzene	0.49	U	80.0	79.1		ug/L		99	70 - 130	2	20
Phenanthrene	0.68	U	80.0	75.6		ug/L		95	70 - 130	11	20
Anthracene	0.59	U	80.0	74.6		ug/L		93	70 - 130	1	20
Carbazole	0.89	U	80.0	78.7		ug/L		98	70 - 130	9	20
Di-n-butyl phthalate	0.85	U	80.0	76.7		ug/L		96	70 - 130	10	20
Fluoranthene	0.75	U	80.0	87.2		ug/L		109	70 - 130	6	20
Pyrene	0.86	U	80.0	77.2		ug/L		97	70 - 130	7	20
Butyl benzyl phthalate	0.63	U	80.0	80.3		ug/L		100	70 - 130	7	20
Benzo[a]anthracene	0.57	U	80.0	81.3		ug/L		102	70 - 130	5	20
Chrysene	0.70	U	80.0	85.5		ug/L		107	70 - 130	10	20
Bis(2-ethylhexyl) phthalate	0.75	U	80.0	80.6		ug/L		101	70 - 130	6	20
Di-n-octyl phthalate	0.72	U	80.0	78.0		ug/L		97	70 - 130	10	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-118778-10 MSD
Matrix: Water
Analysis Batch: 387153

Client Sample ID: OB-13-081616
Prep Type: Total/NA
Prep Batch: 385957

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[b]fluoranthene	0.46	U	80.0	77.6		ug/L		97	70 - 130	12	20
Benzo[k]fluoranthene	0.19	U	80.0	88.8		ug/L		111	70 - 130	5	20
Benzo[a]pyrene	0.17	U	80.0	82.7		ug/L		103	70 - 130	6	20
Indeno[1,2,3-cd]pyrene	0.22	U F1	80.0	107	F1	ug/L		133	70 - 130	15	20
Dibenz(a,h)anthracene	0.094	U	80.0	93.0		ug/L		116	70 - 130	7	20
Benzo[g,h,i]perylene	0.78	U	80.0	86.6		ug/L		108	70 - 130	6	20
1,1'-Biphenyl	0.66	U	80.0	75.1		ug/L		94	70 - 130	4	20
Acetophenone	1.1	U	80.0	86.6		ug/L		108	70 - 130	11	20
Benzaldehyde	0.90	U	160	148		ug/L		93	20 - 160	5	20
Caprolactam	1.1	U	160	45.9		ug/L		29	20 - 160	20	20
Atrazine	1.4	J	160	149		ug/L		92	70 - 130	14	20
2,2'-oxybis[1-chloropropane]	0.97	U	80.0	67.1		ug/L		84	70 - 130	8	20
1,2,4,5-Tetrachlorobenzene	0.45	U	80.0	83.2		ug/L		104	70 - 130	1	20
2,3,4,6-Tetrachlorophenol	0.72	U	80.0	95.5		ug/L		119	70 - 130	3	20
3,3'-Dichlorobenzidine	1.1	U	80.0	93.4		ug/L		117	70 - 130	3	20
Bis(2-chloroethoxy)methane	0.72	U	80.0	69.1		ug/L		86	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*91*		*30 - 130*
Phenol-d5 (Surr)	*31*		*15 - 110*
Terphenyl-d14 (Surr)	*93*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*125*	*X*	*15 - 110*
2-Fluorophenol (Surr)	*51*		*15 - 110*
2-Fluorobiphenyl	*88*		*30 - 130*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 460-385957/1-A
Matrix: Water
Analysis Batch: 386797

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 385957

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/21/16 12:34	08/26/16 18:53	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/21/16 12:34	08/26/16 18:53	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/21/16 12:34	08/26/16 18:53	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/21/16 12:34	08/26/16 18:53	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/21/16 12:34	08/26/16 18:53	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		08/21/16 12:34	08/26/16 18:53	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/21/16 12:34	08/26/16 18:53	1
N-Nitrosodimethylamine	0.051	U	0.20	0.051	ug/L		08/21/16 12:34	08/26/16 18:53	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/21/16 12:34	08/26/16 18:53	1

Lab Sample ID: LCS 460-385957/4-A
Matrix: Water
Analysis Batch: 386477

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 385957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.800	0.723		ug/L		90	70 - 130

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 460-385957/4-A
Matrix: Water
Analysis Batch: 386477

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 385957

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	0.800	0.738		ug/L		92	70 - 130
Benzo[b]fluoranthene	0.800	0.716		ug/L		89	70 - 130
Bis(2-chloroethyl)ether	0.800	0.826		ug/L		103	70 - 130
Dibenz(a,h)anthracene	0.800	0.730		ug/L		91	70 - 130
Hexachlorobenzene	0.800	0.720		ug/L		90	70 - 130
Indeno[1,2,3-cd]pyrene	0.800	0.710		ug/L		89	70 - 130
N-Nitrosodimethylamine	0.800	0.397		ug/L		50	20 - 160
Pentachlorophenol	1.60	0.856		ug/L		54	20 - 160

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-386152/1-A
Matrix: Water
Analysis Batch: 386237

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386152

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 07:59	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 07:59	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 07:59	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 07:59	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 07:59	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/22/16 19:33	08/23/16 07:59	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 07:59	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 07:59	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 07:59	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/22/16 19:33	08/23/16 07:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*101*		*30 - 150*	*08/22/16 19:33*	*08/23/16 07:59*	*1*
Tetrachloro-m-xylene	*82*		*30 - 150*	*08/22/16 19:33*	*08/23/16 07:59*	*1*
DCB Decachlorobiphenyl	*119*		*30 - 150*	*08/22/16 19:33*	*08/23/16 07:59*	*1*
DCB Decachlorobiphenyl	*114*		*30 - 150*	*08/22/16 19:33*	*08/23/16 07:59*	*1*

Lab Sample ID: LCS 460-386152/2-A
Matrix: Water
Analysis Batch: 386237

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386152

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	4.00	4.83		ug/L		121	40 - 140
PCB-1016	4.00	4.54		ug/L		114	40 - 140
PCB-1260	4.00	5.43		ug/L		136	40 - 140
PCB-1260	4.00	4.92		ug/L		123	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*85*		*30 - 150*
Tetrachloro-m-xylene	*64*		*30 - 150*
DCB Decachlorobiphenyl	*121*		*30 - 150*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 460-386152/2-A
Matrix: Water
Analysis Batch: 386237

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386152

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*116*		*30 - 150*

Lab Sample ID: 460-118778-10 MS
Matrix: Water
Analysis Batch: 386237

Client Sample ID: OB-13-081616
Prep Type: Total/NA
Prep Batch: 386152

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.098	U F2	4.00	5.35		ug/L		134	40 - 140
PCB-1016	0.098	U F1	4.00	3.97		ug/L		99	40 - 140
PCB-1260	0.084	U F2	4.00	5.98	F1	ug/L		150	40 - 140
PCB-1260	0.084	U F1	4.00	4.40		ug/L		110	40 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*103*		*30 - 150*
Tetrachloro-m-xylene	*65*	*p*	*30 - 150*
DCB Decachlorobiphenyl	*138*		*30 - 150*
DCB Decachlorobiphenyl	*108*		*30 - 150*

Lab Sample ID: 460-118778-10 MSD
Matrix: Water
Analysis Batch: 386237

Client Sample ID: OB-13-081616
Prep Type: Total/NA
Prep Batch: 386152

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	0.098	U F2	4.00	5.88	F1	ug/L		147	40 - 140	9	20
PCB-1016	0.098	U F1	4.00	4.10		ug/L		102	40 - 140	3	20
PCB-1260	0.084	U F2	4.00	6.95	F1	ug/L		174	40 - 140	15	20
PCB-1260	0.084	U F1	4.00	4.78		ug/L		120	40 - 140	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*111*		*30 - 150*
Tetrachloro-m-xylene	*63*	*p*	*30 - 150*
DCB Decachlorobiphenyl	*158*	*X*	*30 - 150*
DCB Decachlorobiphenyl	*119*		*30 - 150*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 460-385734/3
Matrix: Water
Analysis Batch: 385734

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			08/19/16 10:44	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/19/16 10:44	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 460-385734/5
Matrix: Water
Analysis Batch: 385734

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	4.882		mg/L		98	90 - 110
Chloride	1.50	1.442		mg/L		96	90 - 110
Fluoride	1.00	1.018		mg/L		102	90 - 110
Sulfate	7.50	7.258		mg/L		97	90 - 110

Lab Sample ID: LCSD 460-385734/6
Matrix: Water
Analysis Batch: 385734

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	4.931		mg/L		99	90 - 110	1	15
Chloride	1.50	1.464		mg/L		98	90 - 110	2	15
Fluoride	1.00	0.963		mg/L		96	90 - 110	6	15
Sulfate	7.50	7.344		mg/L		98	90 - 110	1	15

Lab Sample ID: 460-118778-10 MS
Matrix: Water
Analysis Batch: 385734

Client Sample ID: OB-13-081616
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.081	U	5.00	4.805		mg/L		96	90 - 110
Chloride	2.63		1.50	4.159		mg/L		102	90 - 110
Fluoride	0.095		1.00	1.131		mg/L		104	90 - 110
Sulfate	10.5		7.50	18.13		mg/L		101	90 - 110

Lab Sample ID: 460-118778-10 MSD
Matrix: Water
Analysis Batch: 385734

Client Sample ID: OB-13-081616
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.081	U	5.00	4.913		mg/L		98	90 - 110	2	15
Chloride	2.63		1.50	4.101		mg/L		98	90 - 110	1	15
Fluoride	0.095		1.00	1.176		mg/L		108	90 - 110	4	15
Sulfate	10.5		7.50	18.13		mg/L		101	90 - 110	0	15

Lab Sample ID: 460-118778-10 DU
Matrix: Water
Analysis Batch: 385734

Client Sample ID: OB-13-081616
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	2.63		2.637		mg/L		0.3	15
Sulfate	10.5		10.35		mg/L		2	15

Lab Sample ID: MB 460-385736/3
Matrix: Water
Analysis Batch: 385736

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			08/19/16 22:19	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 460-385736/3
Matrix: Water
Analysis Batch: 385736

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	0.11	U	0.60	0.11	mg/L			08/19/16 22:19	1

Lab Sample ID: LCS 460-385736/5
Matrix: Water
Analysis Batch: 385736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.50	1.544		mg/L		103	90 - 110
Sulfate	7.50	7.759		mg/L		103	90 - 110

Lab Sample ID: LCSD 460-385736/6
Matrix: Water
Analysis Batch: 385736

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.50	1.511		mg/L		101	90 - 110	2	15
Sulfate	7.50	7.701		mg/L		103	90 - 110	1	15

Lab Sample ID: 460-118778-3 MS
Matrix: Water
Analysis Batch: 385736

Client Sample ID: OB-17-081616
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	12.9	F1 D	7.50	21.17		mg/L		110	90 - 110
Sulfate	41.9	F1 D	37.5	85.77	F1	mg/L		117	90 - 110

Lab Sample ID: 460-118778-3 MSD
Matrix: Water
Analysis Batch: 385736

Client Sample ID: OB-17-081616
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	12.9	F1 D	7.50	21.28	F1	mg/L		111	90 - 110	1	15
Sulfate	41.9	F1 D	37.5	85.15	F1	mg/L		115	90 - 110	1	15

Lab Sample ID: 460-118817-E-2 DU
Matrix: Water
Analysis Batch: 385736

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	1.64		1.621		mg/L		1	15
Sulfate	12.6		12.55		mg/L		0.3	15

Lab Sample ID: MB 460-386598/4
Matrix: Water
Analysis Batch: 386598

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			08/24/16 21:15	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/24/16 21:15	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 460-386598/6
Matrix: Water
Analysis Batch: 386598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.50	1.563		mg/L		104	90 - 110
Sulfate	7.50	7.823		mg/L		104	90 - 110

Lab Sample ID: LCSD 460-386598/7
Matrix: Water
Analysis Batch: 386598

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1.50	1.451		mg/L		97	90 - 110	7	15
Sulfate	7.50	7.244		mg/L		97	90 - 110	8	15

Lab Sample ID: 460-118951-E-4 MS
Matrix: Water
Analysis Batch: 386598

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.09		1.50	3.471		mg/L		92	90 - 110
Sulfate	0.83		7.50	7.660		mg/L		91	90 - 110

Lab Sample ID: 460-118951-E-4 MSD
Matrix: Water
Analysis Batch: 386598

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.09		1.50	3.454		mg/L		91	90 - 110	1	15
Sulfate	0.83		7.50	7.682		mg/L		91	90 - 110	0	15

Lab Sample ID: 460-118951-E-4 DU
Matrix: Water
Analysis Batch: 386598

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	2.09		2.068		mg/L		1	15
Sulfate	0.83		0.838		mg/L		1	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: LCS 460-386739/2-A
Matrix: Water
Analysis Batch: 386872

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386739

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	5.00	5.67		ug/L		113	80 - 120
Arsenic	10.0	10.38		ug/L		104	80 - 120
Barium	10.0	10.38		ug/L		104	80 - 120
Beryllium	5.00	5.31		ug/L		106	80 - 120
Cadmium	5.00	5.28		ug/L		106	80 - 120
Cobalt	5.00	4.98		ug/L		100	80 - 120
Chromium	10.0	9.84		ug/L		98	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-386739/2-A
Matrix: Water
Analysis Batch: 386872

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386739

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	10.0	9.97		ug/L		100	80 - 120
Manganese	50.0	51.14		ug/L		102	80 - 120
Nickel	10.0	9.84		ug/L		98	80 - 120
Lead	5.00	5.23		ug/L		105	80 - 120
Antimony	5.00	4.65		ug/L		93	80 - 120
Selenium	10.0	10.21		ug/L		102	80 - 120
Vanadium	10.0	9.83		ug/L		98	80 - 120
Zinc	50.0	49.95		ug/L		100	80 - 120
Aluminum	500	514.3		ug/L		103	80 - 120
Sodium	500	490.2		ug/L		98	80 - 120
Magnesium	500	499.2		ug/L		100	80 - 120
Potassium	500	542.2		ug/L		108	80 - 120
Calcium	500	537.0		ug/L		107	80 - 120
Iron	500	550.5		ug/L		110	80 - 120
Thallium	4.00	4.11		ug/L		103	80 - 120

Lab Sample ID: MB 460-386939/1-A ^2
Matrix: Water
Analysis Batch: 386342

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386939

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 09:08	08/26/16 14:59	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 09:08	08/26/16 14:59	2
Barium	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 14:59	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 09:08	08/26/16 14:59	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 09:08	08/26/16 14:59	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 14:59	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 09:08	08/26/16 14:59	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 14:59	2
Manganese	3.0	U	8.0	3.0	ug/L		08/26/16 09:08	08/26/16 14:59	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 09:08	08/26/16 14:59	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 09:08	08/26/16 14:59	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 09:08	08/26/16 14:59	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 09:08	08/26/16 14:59	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 09:08	08/26/16 14:59	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 09:08	08/26/16 14:59	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 09:08	08/26/16 14:59	2
Sodium	87.6	U	200	87.6	ug/L		08/26/16 09:08	08/26/16 14:59	2
Magnesium	68.4	U	200	68.4	ug/L		08/26/16 09:08	08/26/16 14:59	2
Potassium	74.8	U	200	74.8	ug/L		08/26/16 09:08	08/26/16 14:59	2
Calcium	69.5	U	200	69.5	ug/L		08/26/16 09:08	08/26/16 14:59	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 09:08	08/26/16 14:59	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 09:08	08/26/16 14:59	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-386939/2-A ^2
Matrix: Water
Analysis Batch: 386342

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386939

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	20.79		ug/L		83	80 - 120
Arsenic	50.0	50.79		ug/L		102	80 - 120
Barium	50.0	50.47		ug/L		101	80 - 120
Beryllium	25.0	23.22		ug/L		93	80 - 120
Cadmium	25.0	25.06		ug/L		100	80 - 120
Cobalt	25.0	25.35		ug/L		101	80 - 120
Chromium	50.0	51.19		ug/L		102	80 - 120
Copper	50.0	50.61		ug/L		101	80 - 120
Manganese	250	247.7		ug/L		99	80 - 120
Nickel	50.0	50.87		ug/L		102	80 - 120
Lead	25.0	26.01		ug/L		104	80 - 120
Antimony	25.0	24.79		ug/L		99	80 - 120
Selenium	50.0	49.24		ug/L		98	80 - 120
Vanadium	50.0	49.99		ug/L		100	80 - 120
Zinc	250	250.2		ug/L		100	80 - 120
Aluminum	2500	2438		ug/L		98	80 - 120
Sodium	2500	2541		ug/L		102	80 - 120
Magnesium	2500	2441		ug/L		98	80 - 120
Potassium	2500	2488		ug/L		100	80 - 120
Calcium	2500	2621		ug/L		105	80 - 120
Iron	2500	2459		ug/L		98	80 - 120
Thallium	20.0	20.44		ug/L		102	80 - 120

Lab Sample ID: 460-118778-10 MS
Matrix: Water
Analysis Batch: 386342

Client Sample ID: OB-13-081616
Prep Type: Total/NA
Prep Batch: 386939

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.5	U	25.0	21.91		ug/L		88	75 - 125
Arsenic	0.71	U	50.0	48.75		ug/L		97	75 - 125
Barium	5.7		50.0	59.54		ug/L		108	75 - 125
Beryllium	0.29	U	25.0	24.60		ug/L		98	75 - 125
Cadmium	0.72	U	25.0	26.66		ug/L		107	75 - 125
Cobalt	1.5	U	25.0	26.29		ug/L		105	75 - 125
Chromium	1.5	U	50.0	53.94		ug/L		108	75 - 125
Copper	1.6	U	50.0	52.80		ug/L		106	75 - 125
Manganese	3.0	U	250	261.3		ug/L		105	75 - 125
Nickel	1.6	U	50.0	53.16		ug/L		106	75 - 125
Lead	0.44	U	25.0	27.31		ug/L		109	75 - 125
Antimony	0.76	U	25.0	26.34		ug/L		105	75 - 125
Selenium	0.79	U	50.0	46.66		ug/L		93	75 - 125
Vanadium	1.4	U	50.0	53.17		ug/L		106	75 - 125
Zinc	6.5	U	250	260.5		ug/L		104	75 - 125
Aluminum	27.0	J	2500	2566		ug/L		102	75 - 125
Sodium	3680		2500	6367		ug/L		108	75 - 125
Magnesium	4230		2500	6659		ug/L		97	75 - 125
Potassium	1070		2500	3621		ug/L		102	75 - 125
Calcium	9770		2500	12320		ug/L		102	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-118778-10 MS
Matrix: Water
Analysis Batch: 386342

Client Sample ID: OB-13-081616
Prep Type: Total/NA
Prep Batch: 386939

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	49.1	U	2500	2590		ug/L		104	75 - 125
Thallium	0.31	U	20.0	21.54		ug/L		108	75 - 125

Lab Sample ID: 460-118778-10 DU
Matrix: Water
Analysis Batch: 386342

Client Sample ID: OB-13-081616
Prep Type: Total/NA
Prep Batch: 386939

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.5	U	1.5	U	ug/L		NC	20
Arsenic	0.71	U	0.71	U	ug/L		NC	20
Barium	5.7		5.00		ug/L		13	20
Beryllium	0.29	U	0.29	U	ug/L		NC	20
Cadmium	0.72	U	0.72	U	ug/L		NC	20
Cobalt	1.5	U	1.5	U	ug/L		NC	20
Chromium	1.5	U	1.5	U	ug/L		NC	20
Copper	1.6	U	1.6	U	ug/L		NC	20
Manganese	3.0	U	3.0	U	ug/L		NC	20
Nickel	1.6	U	1.6	U	ug/L		NC	20
Lead	0.44	U	0.44	U	ug/L		NC	20
Antimony	0.76	U	0.76	U	ug/L		NC	20
Selenium	0.79	U	0.79	U	ug/L		NC	20
Vanadium	1.4	U	1.4	U	ug/L		NC	20
Zinc	6.5	U	6.5	U	ug/L		NC	20
Aluminum	27.0	J	23.09	J	ug/L		16	20
Sodium	3680		3562		ug/L		3	20
Magnesium	4230		4108		ug/L		3	20
Potassium	1070		1043		ug/L		3	20
Calcium	9770		9413		ug/L		4	20
Iron	49.1	U	49.1	U	ug/L		NC	20
Thallium	0.31	U	0.31	U	ug/L		NC	20

Lab Sample ID: MB 460-386733/1-B
Matrix: Water
Analysis Batch: 386872

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 386739

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.73	U	1.0	0.73	ug/L		08/25/16 10:28	08/26/16 00:48	1
Arsenic	0.36	U	1.0	0.36	ug/L		08/25/16 10:28	08/26/16 00:48	1
Barium	0.73	U	2.0	0.73	ug/L		08/25/16 10:28	08/26/16 00:48	1
Beryllium	0.15	U	0.40	0.15	ug/L		08/25/16 10:28	08/26/16 00:48	1
Cadmium	0.36	U	1.0	0.36	ug/L		08/25/16 10:28	08/26/16 00:48	1
Cobalt	0.75	U	2.0	0.75	ug/L		08/25/16 10:28	08/26/16 00:48	1
Chromium	0.76	U	2.0	0.76	ug/L		08/25/16 10:28	08/26/16 00:48	1
Copper	0.80	U	2.0	0.80	ug/L		08/25/16 10:28	08/26/16 00:48	1
Manganese	1.5	U	4.0	1.5	ug/L		08/25/16 10:28	08/26/16 00:48	1
Nickel	0.81	U	2.0	0.81	ug/L		08/25/16 10:28	08/26/16 00:48	1
Lead	0.22	U	0.60	0.22	ug/L		08/25/16 10:28	08/26/16 00:48	1
Antimony	0.38	U	1.0	0.38	ug/L		08/25/16 10:28	08/26/16 00:48	1
Selenium	0.40	U	5.0	0.40	ug/L		08/25/16 10:28	08/26/16 00:48	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-386733/1-B
Matrix: Water
Analysis Batch: 386872

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 386739

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	0.68	U	2.0	0.68	ug/L		08/25/16 10:28	08/26/16 00:48	1
Zinc	3.2	U	8.0	3.2	ug/L		08/25/16 10:28	08/26/16 00:48	1
Aluminum	6.8	U	20.0	6.8	ug/L		08/25/16 10:28	08/26/16 00:48	1
Sodium	43.8	U	100	43.8	ug/L		08/25/16 10:28	08/26/16 00:48	1
Magnesium	34.2	U	100	34.2	ug/L		08/25/16 10:28	08/26/16 00:48	1
Potassium	37.4	U	100	37.4	ug/L		08/25/16 10:28	08/26/16 00:48	1
Calcium	34.8	U	100	34.8	ug/L		08/25/16 10:28	08/26/16 00:48	1
Iron	24.6	U	60.0	24.6	ug/L		08/25/16 10:28	08/26/16 00:48	1
Thallium	0.16	U	0.40	0.16	ug/L		08/25/16 10:28	08/26/16 00:48	1

Lab Sample ID: 460-118778-10 MS
Matrix: Water
Analysis Batch: 386872

Client Sample ID: OB-13-081616
Prep Type: Dissolved
Prep Batch: 386739

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.5	U	10.0	10.54		ug/L		105	75 - 125
Arsenic	0.71	U	20.0	19.94		ug/L		100	75 - 125
Barium	5.7		20.0	25.91		ug/L		101	75 - 125
Beryllium	0.29	U	10.0	10.57		ug/L		106	75 - 125
Cadmium	0.72	U	10.0	9.12		ug/L		91	75 - 125
Cobalt	1.5	U	10.0	9.29		ug/L		93	75 - 125
Chromium	1.5	U	20.0	18.45		ug/L		92	75 - 125
Copper	1.6	U	20.0	18.65		ug/L		93	75 - 125
Manganese	3.0	U	100	97.60		ug/L		98	75 - 125
Nickel	1.6	U	20.0	18.98		ug/L		95	75 - 125
Lead	0.44	U	10.0	9.77		ug/L		98	75 - 125
Antimony	0.76	U	10.0	7.93		ug/L		79	75 - 125
Selenium	0.79	U	20.0	20.73		ug/L		104	75 - 125
Vanadium	1.4	U	20.0	18.72		ug/L		94	75 - 125
Zinc	6.5	U	100	98.37		ug/L		98	75 - 125
Aluminum	13.5	U	1000	964.3		ug/L		96	75 - 125
Sodium	3210		1000	4129		ug/L		92	75 - 125
Magnesium	3890		1000	4823		ug/L		93	75 - 125
Potassium	1050		1000	2074		ug/L		102	75 - 125
Calcium	9530		1000	10800	4	ug/L		127	75 - 125
Iron	49.1	U	1000	1032		ug/L		103	75 - 125
Thallium	0.31	U	8.00	7.59		ug/L		95	75 - 125

Lab Sample ID: 460-118778-10 DU
Matrix: Water
Analysis Batch: 386872

Client Sample ID: OB-13-081616
Prep Type: Dissolved
Prep Batch: 386739

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.5	U	1.5	U	ug/L		NC	20
Arsenic	0.71	U	0.71	U	ug/L		NC	20
Barium	5.7		5.34		ug/L		6	20
Beryllium	0.29	U	0.29	U	ug/L		NC	20
Cadmium	0.72	U	0.72	U	ug/L		NC	20
Cobalt	1.5	U	1.5	U	ug/L		NC	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-118778-10 DU
Matrix: Water
Analysis Batch: 386872

Client Sample ID: OB-13-081616
Prep Type: Dissolved
Prep Batch: 386739

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium	1.5	U	1.5	U	ug/L		NC	20
Copper	1.6	U	1.6	U	ug/L		NC	20
Manganese	3.0	U	3.0	U	ug/L		NC	20
Nickel	1.6	U	1.6	U	ug/L		NC	20
Lead	0.44	U	0.44	U	ug/L		NC	20
Antimony	0.76	U	0.76	U	ug/L		NC	20
Selenium	0.79	U	0.79	U	ug/L		NC	20
Vanadium	1.4	U	1.4	U	ug/L		NC	20
Zinc	6.5	U	6.5	U	ug/L		NC	20
Aluminum	13.5	U	13.5	U	ug/L		NC	20
Sodium	3210		3267		ug/L		2	20
Magnesium	3890		3961		ug/L		2	20
Potassium	1050		1059		ug/L		0.7	20
Calcium	9530		9662		ug/L		1	20
Iron	49.1	U	49.1	U	ug/L		NC	20
Thallium	0.31	U	0.31	U	ug/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-386295/1-A
Matrix: Water
Analysis Batch: 386345

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386295

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 11:57	08/23/16 13:27	1

Lab Sample ID: LCS 460-386295/2-A
Matrix: Water
Analysis Batch: 386345

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386295

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.949		ug/L		95	80 - 120

Lab Sample ID: 460-118778-10 MS
Matrix: Water
Analysis Batch: 386345

Client Sample ID: OB-13-081616
Prep Type: Total/NA
Prep Batch: 386295

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.14	U	1.00	0.878		ug/L		88	75 - 125

Lab Sample ID: 460-118778-10 DU
Matrix: Water
Analysis Batch: 386345

Client Sample ID: OB-13-081616
Prep Type: Total/NA
Prep Batch: 386295

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.14	U	0.14	U	ug/L		NC	20

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 460-386531/2-A
Matrix: Water
Analysis Batch: 386593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386531

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	1.15		ug/L		115	80 - 120

Lab Sample ID: MB 460-386530/1-B
Matrix: Water
Analysis Batch: 386593

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 386531

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 12:13	08/24/16 14:45	1

Lab Sample ID: 460-118778-10 MS
Matrix: Water
Analysis Batch: 386593

Client Sample ID: OB-13-081616
Prep Type: Dissolved
Prep Batch: 386531

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.14	U	1.00	1.12		ug/L		112	75 - 125

Lab Sample ID: 460-118778-10 DU
Matrix: Water
Analysis Batch: 386593

Client Sample ID: OB-13-081616
Prep Type: Dissolved
Prep Batch: 386531

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.14	U	0.14	U	ug/L		NC	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 460-387026/1-A
Matrix: Water
Analysis Batch: 387210

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387026

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/26/16 15:47	08/27/16 14:33	1

Lab Sample ID: HLCS 460-387026/3-A
Matrix: Water
Analysis Batch: 387210

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387026

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.200	0.197		mg/L		99	90 - 110

Lab Sample ID: LCS 460-387026/2-A
Matrix: Water
Analysis Batch: 387210

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387026

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0954		mg/L		95	80 - 120

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: 460-118778-10 MS
Matrix: Water
Analysis Batch: 387210

Client Sample ID: OB-13-081616
Prep Type: Total/NA
Prep Batch: 387026

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0020	U	0.200	0.182		mg/L		91	75 - 125

Lab Sample ID: 460-118778-10 MSD
Matrix: Water
Analysis Batch: 387210

Client Sample ID: OB-13-081616
Prep Type: Total/NA
Prep Batch: 387026

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0020	U	0.200	0.182		mg/L		91	75 - 125	0	20

Lab Sample ID: MB 460-387699/1-A
Matrix: Water
Analysis Batch: 387726

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387699

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/30/16 15:47	08/30/16 18:39	1

Lab Sample ID: HLCS 460-387699/3-A
Matrix: Water
Analysis Batch: 387726

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387699

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.200	0.193		mg/L		97	80 - 120

Lab Sample ID: LLCS 460-387699/2-A
Matrix: Water
Analysis Batch: 387726

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387699

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0964		mg/L		96	80 - 120

Lab Sample ID: 460-118817-F-6-E MS
Matrix: Water
Analysis Batch: 387726

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387699

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0020	U	0.200	0.186		mg/L		93	75 - 125

Lab Sample ID: 460-118817-F-6-F MSD
Matrix: Water
Analysis Batch: 387726

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 387699

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0020	U	0.200	0.195		mg/L		98	75 - 125	5	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 460-385583/1
Matrix: Water
Analysis Batch: 385583

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			08/18/16 12:00	1
Alkalinity	5.0	U	5.0	5.0	mg/L			08/18/16 12:00	1

Lab Sample ID: LCSSRM 460-385583/2
Matrix: Water
Analysis Batch: 385583

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	44.1	46.09		mg/L		104.5	90.5 - 107.9

Lab Sample ID: 460-118778-5 DU
Matrix: Water
Analysis Batch: 385583

Client Sample ID: OB-10-081616
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	52.1		52.10		mg/L		0	17
Alkalinity	52.1		52.10		mg/L		0	17

Lab Sample ID: MB 460-386086/1
Matrix: Water
Analysis Batch: 386086

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			08/22/16 13:34	1
Alkalinity	5.0	U	5.0	5.0	mg/L			08/22/16 13:34	1

Lab Sample ID: LLCS 460-386086/2
Matrix: Water
Analysis Batch: 386086

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	44.1	44.09		mg/L		100	

Lab Sample ID: 460-118778-10 DU
Matrix: Water
Analysis Batch: 386086

Client Sample ID: OB-13-081616
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	38.1		38.08		mg/L		0	17
Alkalinity	38.1		38.08		mg/L		0	17

GC/MS VOA

Analysis Batch: 386244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-1	TB-01-081616	Total/NA	Water	8260C SIM	
460-118778-2	FB-01-081616	Total/NA	Water	8260C SIM	
460-118778-3	OB-17-081616	Total/NA	Water	8260C SIM	
460-118778-4	OB-18-081616	Total/NA	Water	8260C SIM	
460-118778-5	OB-10-081616	Total/NA	Water	8260C SIM	
460-118778-6	OB-16-081616	Total/NA	Water	8260C SIM	
460-118778-7	OB-28-081616	Total/NA	Water	8260C SIM	
460-118778-8	Dup-01-081616	Total/NA	Water	8260C SIM	
460-118778-11	OB-14A-081616	Total/NA	Water	8260C SIM	
460-118778-12	OB-14B-081616	Total/NA	Water	8260C SIM	
460-118778-13	OB-24-081616	Total/NA	Water	8260C SIM	
460-118778-14	RW-16-081616	Total/NA	Water	8260C SIM	
MB 460-386244/8	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-386244/4	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 460-386244/5	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 386373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-1	TB-01-081616	Total/NA	Water	8260C	
460-118778-2	FB-01-081616	Total/NA	Water	8260C	
460-118778-3	OB-17-081616	Total/NA	Water	8260C	
460-118778-4	OB-18-081616	Total/NA	Water	8260C	
460-118778-5	OB-10-081616	Total/NA	Water	8260C	
460-118778-6	OB-16-081616	Total/NA	Water	8260C	
460-118778-7	OB-28-081616	Total/NA	Water	8260C	
460-118778-8	Dup-01-081616	Total/NA	Water	8260C	
460-118778-9	OB-29-081616	Total/NA	Water	8260C	
460-118778-10	OB-13-081616	Total/NA	Water	8260C	
460-118778-11	OB-14A-081616	Total/NA	Water	8260C	
460-118778-12	OB-14B-081616	Total/NA	Water	8260C	
460-118778-13	OB-24-081616	Total/NA	Water	8260C	
460-118778-14	RW-16-081616	Total/NA	Water	8260C	
460-118778-15	OB-3-081616	Total/NA	Water	8260C	
MB 460-386373/7	Method Blank	Total/NA	Water	8260C	
LCS 460-386373/3	Lab Control Sample	Total/NA	Water	8260C	
460-118778-10 MS	OB-13-081616	Total/NA	Water	8260C	
460-118778-10 MSD	OB-13-081616	Total/NA	Water	8260C	

Analysis Batch: 386381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-9	OB-29-081616	Total/NA	Water	8260C SIM	
460-118778-10	OB-13-081616	Total/NA	Water	8260C SIM	
460-118778-15	OB-3-081616	Total/NA	Water	8260C SIM	
MB 460-386381/8	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-386381/4	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 460-386381/5	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

GC/MS Semi VOA

Prep Batch: 385957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Total/NA	Water	3510C	
460-118778-3	OB-17-081616	Total/NA	Water	3510C	
460-118778-4	OB-18-081616	Total/NA	Water	3510C	
460-118778-5	OB-10-081616	Total/NA	Water	3510C	
460-118778-6	OB-16-081616	Total/NA	Water	3510C	
460-118778-7	OB-28-081616	Total/NA	Water	3510C	
460-118778-8	Dup-01-081616	Total/NA	Water	3510C	
460-118778-9	OB-29-081616	Total/NA	Water	3510C	
460-118778-10	OB-13-081616	Total/NA	Water	3510C	
460-118778-11	OB-14A-081616	Total/NA	Water	3510C	
460-118778-12	OB-14B-081616	Total/NA	Water	3510C	
460-118778-13	OB-24-081616	Total/NA	Water	3510C	
460-118778-14	RW-16-081616	Total/NA	Water	3510C	
460-118778-15	OB-3-081616	Total/NA	Water	3510C	
MB 460-385957/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-385957/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-385957/3-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-385957/4-A	Lab Control Sample	Total/NA	Water	3510C	
460-118778-10 MS	OB-13-081616	Total/NA	Water	3510C	
460-118778-10 MSD	OB-13-081616	Total/NA	Water	3510C	

Analysis Batch: 386477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-3	OB-17-081616	Total/NA	Water	8270D SIM	385957
460-118778-4	OB-18-081616	Total/NA	Water	8270D SIM	385957
460-118778-5	OB-10-081616	Total/NA	Water	8270D SIM	385957
460-118778-6	OB-16-081616	Total/NA	Water	8270D SIM	385957
460-118778-10	OB-13-081616	Total/NA	Water	8270D SIM	385957
LCS 460-385957/4-A	Lab Control Sample	Total/NA	Water	8270D SIM	385957

Analysis Batch: 386797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Total/NA	Water	8270D SIM	385957
460-118778-7	OB-28-081616	Total/NA	Water	8270D SIM	385957
460-118778-9	OB-29-081616	Total/NA	Water	8270D SIM	385957
460-118778-11	OB-14A-081616	Total/NA	Water	8270D SIM	385957
460-118778-12	OB-14B-081616	Total/NA	Water	8270D SIM	385957
460-118778-13	OB-24-081616	Total/NA	Water	8270D SIM	385957
460-118778-14	RW-16-081616	Total/NA	Water	8270D SIM	385957
460-118778-15	OB-3-081616	Total/NA	Water	8270D SIM	385957
MB 460-385957/1-A	Method Blank	Total/NA	Water	8270D SIM	385957

Analysis Batch: 387153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Total/NA	Water	8270D	385957
460-118778-3	OB-17-081616	Total/NA	Water	8270D	385957
460-118778-4	OB-18-081616	Total/NA	Water	8270D	385957
460-118778-5	OB-10-081616	Total/NA	Water	8270D	385957
460-118778-6	OB-16-081616	Total/NA	Water	8270D	385957
460-118778-7	OB-28-081616	Total/NA	Water	8270D	385957
460-118778-8	Dup-01-081616	Total/NA	Water	8270D	385957

GC/MS Semi VOA (Continued)

Analysis Batch: 387153 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-9	OB-29-081616	Total/NA	Water	8270D	385957
460-118778-10	OB-13-081616	Total/NA	Water	8270D	385957
460-118778-11	OB-14A-081616	Total/NA	Water	8270D	385957
460-118778-12	OB-14B-081616	Total/NA	Water	8270D	385957
460-118778-13	OB-24-081616	Total/NA	Water	8270D	385957
460-118778-14	RW-16-081616	Total/NA	Water	8270D	385957
MB 460-385957/1-A	Method Blank	Total/NA	Water	8270D	385957
LCS 460-385957/2-A	Lab Control Sample	Total/NA	Water	8270D	385957
LCS 460-385957/3-A	Lab Control Sample	Total/NA	Water	8270D	385957
460-118778-10 MS	OB-13-081616	Total/NA	Water	8270D	385957
460-118778-10 MSD	OB-13-081616	Total/NA	Water	8270D	385957

Analysis Batch: 387247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-15	OB-3-081616	Total/NA	Water	8270D	385957

Analysis Batch: 387262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-8	Dup-01-081616	Total/NA	Water	8270D SIM	385957

GC Semi VOA

Prep Batch: 386152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Total/NA	Water	3510C	
460-118778-3	OB-17-081616	Total/NA	Water	3510C	
460-118778-4	OB-18-081616	Total/NA	Water	3510C	
460-118778-5	OB-10-081616	Total/NA	Water	3510C	
460-118778-6	OB-16-081616	Total/NA	Water	3510C	
460-118778-7	OB-28-081616	Total/NA	Water	3510C	
460-118778-8	Dup-01-081616	Total/NA	Water	3510C	
460-118778-9	OB-29-081616	Total/NA	Water	3510C	
460-118778-10	OB-13-081616	Total/NA	Water	3510C	
460-118778-11	OB-14A-081616	Total/NA	Water	3510C	
460-118778-12	OB-14B-081616	Total/NA	Water	3510C	
460-118778-13	OB-24-081616	Total/NA	Water	3510C	
460-118778-14	RW-16-081616	Total/NA	Water	3510C	
460-118778-15	OB-3-081616	Total/NA	Water	3510C	
MB 460-386152/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-386152/2-A	Lab Control Sample	Total/NA	Water	3510C	
460-118778-10 MS	OB-13-081616	Total/NA	Water	3510C	
460-118778-10 MSD	OB-13-081616	Total/NA	Water	3510C	

Analysis Batch: 386235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-8	Dup-01-081616	Total/NA	Water	8082A	386152
460-118778-9	OB-29-081616	Total/NA	Water	8082A	386152
460-118778-11	OB-14A-081616	Total/NA	Water	8082A	386152
460-118778-12	OB-14B-081616	Total/NA	Water	8082A	386152
460-118778-13	OB-24-081616	Total/NA	Water	8082A	386152

GC Semi VOA (Continued)

Analysis Batch: 386235 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-14	RW-16-081616	Total/NA	Water	8082A	386152
460-118778-15	OB-3-081616	Total/NA	Water	8082A	386152

Analysis Batch: 386237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Total/NA	Water	8082A	386152
460-118778-3	OB-17-081616	Total/NA	Water	8082A	386152
460-118778-4	OB-18-081616	Total/NA	Water	8082A	386152
460-118778-5	OB-10-081616	Total/NA	Water	8082A	386152
460-118778-6	OB-16-081616	Total/NA	Water	8082A	386152
460-118778-7	OB-28-081616	Total/NA	Water	8082A	386152
460-118778-10	OB-13-081616	Total/NA	Water	8082A	386152
MB 460-386152/1-A	Method Blank	Total/NA	Water	8082A	386152
LCS 460-386152/2-A	Lab Control Sample	Total/NA	Water	8082A	386152
460-118778-10 MS	OB-13-081616	Total/NA	Water	8082A	386152
460-118778-10 MSD	OB-13-081616	Total/NA	Water	8082A	386152

HPLC/IC

Analysis Batch: 385734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Total/NA	Water	9056A	
460-118778-4	OB-18-081616	Total/NA	Water	9056A	
460-118778-5	OB-10-081616	Total/NA	Water	9056A	
460-118778-6	OB-16-081616	Total/NA	Water	9056A	
460-118778-7	OB-28-081616	Total/NA	Water	9056A	
460-118778-8	Dup-01-081616	Total/NA	Water	9056A	
460-118778-9	OB-29-081616	Total/NA	Water	9056A	
460-118778-10	OB-13-081616	Total/NA	Water	9056A	
460-118778-11	OB-14A-081616	Total/NA	Water	9056A	
460-118778-12	OB-14B-081616	Total/NA	Water	9056A	
460-118778-14	RW-16-081616	Total/NA	Water	9056A	
460-118778-15	OB-3-081616	Total/NA	Water	9056A	
MB 460-385734/3	Method Blank	Total/NA	Water	9056A	
LCS 460-385734/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-385734/6	Lab Control Sample Dup	Total/NA	Water	9056A	
460-118778-10 MS	OB-13-081616	Total/NA	Water	9056A	
460-118778-10 MSD	OB-13-081616	Total/NA	Water	9056A	
460-118778-10 DU	OB-13-081616	Total/NA	Water	9056A	

Analysis Batch: 385736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-3 - DL	OB-17-081616	Total/NA	Water	9056A	
460-118778-6 - DL	OB-16-081616	Total/NA	Water	9056A	
460-118778-7 - DL	OB-28-081616	Total/NA	Water	9056A	
460-118778-12 - DL	OB-14B-081616	Total/NA	Water	9056A	
460-118778-13 - DL	OB-24-081616	Total/NA	Water	9056A	
460-118778-14 - DL	RW-16-081616	Total/NA	Water	9056A	
MB 460-385736/3	Method Blank	Total/NA	Water	9056A	
LCS 460-385736/5	Lab Control Sample	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 385736 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 460-385736/6	Lab Control Sample Dup	Total/NA	Water	9056A	
460-118778-3 MS	OB-17-081616	Total/NA	Water	9056A	
460-118778-3 MSD	OB-17-081616	Total/NA	Water	9056A	
460-118817-E-2 DU	Duplicate	Total/NA	Water	9056A	

Analysis Batch: 386598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-4 - DL	OB-18-081616	Total/NA	Water	9056A	
460-118778-8 - DL	Dup-01-081616	Total/NA	Water	9056A	
460-118778-11 - DL	OB-14A-081616	Total/NA	Water	9056A	
MB 460-386598/4	Method Blank	Total/NA	Water	9056A	
LCS 460-386598/6	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-386598/7	Lab Control Sample Dup	Total/NA	Water	9056A	
460-118951-E-4 MS	Matrix Spike	Total/NA	Water	9056A	
460-118951-E-4 MSD	Matrix Spike Duplicate	Total/NA	Water	9056A	
460-118951-E-4 DU	Duplicate	Total/NA	Water	9056A	

Metals

Prep Batch: 386295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Total/NA	Water	7470A	
460-118778-3	OB-17-081616	Total/NA	Water	7470A	
460-118778-4	OB-18-081616	Total/NA	Water	7470A	
460-118778-5	OB-10-081616	Total/NA	Water	7470A	
460-118778-6	OB-16-081616	Total/NA	Water	7470A	
460-118778-7	OB-28-081616	Total/NA	Water	7470A	
460-118778-8	Dup-01-081616	Total/NA	Water	7470A	
460-118778-9	OB-29-081616	Total/NA	Water	7470A	
460-118778-10	OB-13-081616	Total/NA	Water	7470A	
460-118778-11	OB-14A-081616	Total/NA	Water	7470A	
460-118778-12	OB-14B-081616	Total/NA	Water	7470A	
460-118778-13	OB-24-081616	Total/NA	Water	7470A	
460-118778-14	RW-16-081616	Total/NA	Water	7470A	
460-118778-15	OB-3-081616	Total/NA	Water	7470A	
MB 460-386295/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-386295/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-118778-10 MS	OB-13-081616	Total/NA	Water	7470A	
460-118778-10 DU	OB-13-081616	Total/NA	Water	7470A	

Analysis Batch: 386342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Total/NA	Water	6020A	386939
460-118778-3	OB-17-081616	Total/NA	Water	6020A	386939
460-118778-4	OB-18-081616	Total/NA	Water	6020A	386939
460-118778-5	OB-10-081616	Total/NA	Water	6020A	386939
460-118778-6	OB-16-081616	Total/NA	Water	6020A	386939
460-118778-7	OB-28-081616	Total/NA	Water	6020A	386939
460-118778-8	Dup-01-081616	Total/NA	Water	6020A	386939
460-118778-9	OB-29-081616	Total/NA	Water	6020A	386939

Metals (Continued)

Analysis Batch: 386342 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-10	OB-13-081616	Total/NA	Water	6020A	386939
460-118778-11	OB-14A-081616	Total/NA	Water	6020A	386939
460-118778-12	OB-14B-081616	Total/NA	Water	6020A	386939
460-118778-13	OB-24-081616	Total/NA	Water	6020A	386939
460-118778-14	RW-16-081616	Total/NA	Water	6020A	386939
MB 460-386939/1-A ^2	Method Blank	Total/NA	Water	6020A	386939
LCS 460-386939/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	386939
460-118778-10 MS	OB-13-081616	Total/NA	Water	6020A	386939
460-118778-10 DU	OB-13-081616	Total/NA	Water	6020A	386939

Analysis Batch: 386345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Total/NA	Water	7470A	386295
460-118778-3	OB-17-081616	Total/NA	Water	7470A	386295
460-118778-4	OB-18-081616	Total/NA	Water	7470A	386295
460-118778-5	OB-10-081616	Total/NA	Water	7470A	386295
460-118778-6	OB-16-081616	Total/NA	Water	7470A	386295
460-118778-7	OB-28-081616	Total/NA	Water	7470A	386295
460-118778-8	Dup-01-081616	Total/NA	Water	7470A	386295
460-118778-9	OB-29-081616	Total/NA	Water	7470A	386295
460-118778-10	OB-13-081616	Total/NA	Water	7470A	386295
460-118778-11	OB-14A-081616	Total/NA	Water	7470A	386295
460-118778-12	OB-14B-081616	Total/NA	Water	7470A	386295
460-118778-13	OB-24-081616	Total/NA	Water	7470A	386295
460-118778-14	RW-16-081616	Total/NA	Water	7470A	386295
460-118778-15	OB-3-081616	Total/NA	Water	7470A	386295
MB 460-386295/1-A	Method Blank	Total/NA	Water	7470A	386295
LCS 460-386295/2-A	Lab Control Sample	Total/NA	Water	7470A	386295
460-118778-10 MS	OB-13-081616	Total/NA	Water	7470A	386295
460-118778-10 DU	OB-13-081616	Total/NA	Water	7470A	386295

Filtration Batch: 386530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Dissolved	Water	FILTRATION	
460-118778-3	OB-17-081616	Dissolved	Water	FILTRATION	
460-118778-4	OB-18-081616	Dissolved	Water	FILTRATION	
460-118778-5	OB-10-081616	Dissolved	Water	FILTRATION	
460-118778-6	OB-16-081616	Dissolved	Water	FILTRATION	
460-118778-7	OB-28-081616	Dissolved	Water	FILTRATION	
460-118778-8	Dup-01-081616	Dissolved	Water	FILTRATION	
460-118778-9	OB-29-081616	Dissolved	Water	FILTRATION	
460-118778-10	OB-13-081616	Dissolved	Water	FILTRATION	
460-118778-11	OB-14A-081616	Dissolved	Water	FILTRATION	
460-118778-12	OB-14B-081616	Dissolved	Water	FILTRATION	
460-118778-13	OB-24-081616	Dissolved	Water	FILTRATION	
460-118778-14	RW-16-081616	Dissolved	Water	FILTRATION	
460-118778-15	OB-3-081616	Dissolved	Water	FILTRATION	
MB 460-386530/1-B	Method Blank	Dissolved	Water	FILTRATION	
460-118778-10 MS	OB-13-081616	Dissolved	Water	FILTRATION	
460-118778-10 DU	OB-13-081616	Dissolved	Water	FILTRATION	

Metals (Continued)

Prep Batch: 386531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Dissolved	Water	7470A	386530
460-118778-3	OB-17-081616	Dissolved	Water	7470A	386530
460-118778-4	OB-18-081616	Dissolved	Water	7470A	386530
460-118778-5	OB-10-081616	Dissolved	Water	7470A	386530
460-118778-6	OB-16-081616	Dissolved	Water	7470A	386530
460-118778-7	OB-28-081616	Dissolved	Water	7470A	386530
460-118778-8	Dup-01-081616	Dissolved	Water	7470A	386530
460-118778-9	OB-29-081616	Dissolved	Water	7470A	386530
460-118778-10	OB-13-081616	Dissolved	Water	7470A	386530
460-118778-11	OB-14A-081616	Dissolved	Water	7470A	386530
460-118778-12	OB-14B-081616	Dissolved	Water	7470A	386530
460-118778-13	OB-24-081616	Dissolved	Water	7470A	386530
460-118778-14	RW-16-081616	Dissolved	Water	7470A	386530
460-118778-15	OB-3-081616	Dissolved	Water	7470A	386530
MB 460-386530/1-B	Method Blank	Dissolved	Water	7470A	386530
LCS 460-386531/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-118778-10 MS	OB-13-081616	Dissolved	Water	7470A	386530
460-118778-10 DU	OB-13-081616	Dissolved	Water	7470A	386530

Analysis Batch: 386593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Dissolved	Water	7470A	386531
460-118778-3	OB-17-081616	Dissolved	Water	7470A	386531
460-118778-4	OB-18-081616	Dissolved	Water	7470A	386531
460-118778-5	OB-10-081616	Dissolved	Water	7470A	386531
460-118778-6	OB-16-081616	Dissolved	Water	7470A	386531
460-118778-7	OB-28-081616	Dissolved	Water	7470A	386531
460-118778-8	Dup-01-081616	Dissolved	Water	7470A	386531
460-118778-9	OB-29-081616	Dissolved	Water	7470A	386531
460-118778-10	OB-13-081616	Dissolved	Water	7470A	386531
460-118778-11	OB-14A-081616	Dissolved	Water	7470A	386531
460-118778-12	OB-14B-081616	Dissolved	Water	7470A	386531
460-118778-13	OB-24-081616	Dissolved	Water	7470A	386531
460-118778-14	RW-16-081616	Dissolved	Water	7470A	386531
460-118778-15	OB-3-081616	Dissolved	Water	7470A	386531
MB 460-386530/1-B	Method Blank	Dissolved	Water	7470A	386531
LCS 460-386531/2-A	Lab Control Sample	Total/NA	Water	7470A	386531
460-118778-10 MS	OB-13-081616	Dissolved	Water	7470A	386531
460-118778-10 DU	OB-13-081616	Dissolved	Water	7470A	386531

Filtration Batch: 386733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Dissolved	Water	FILTRATION	
460-118778-3	OB-17-081616	Dissolved	Water	FILTRATION	
460-118778-4	OB-18-081616	Dissolved	Water	FILTRATION	
460-118778-5	OB-10-081616	Dissolved	Water	FILTRATION	
460-118778-6	OB-16-081616	Dissolved	Water	FILTRATION	
460-118778-7	OB-28-081616	Dissolved	Water	FILTRATION	
460-118778-8	Dup-01-081616	Dissolved	Water	FILTRATION	
460-118778-9	OB-29-081616	Dissolved	Water	FILTRATION	
460-118778-10	OB-13-081616	Dissolved	Water	FILTRATION	

Metals (Continued)

Filtration Batch: 386733 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-11	OB-14A-081616	Dissolved	Water	FILTRATION	
460-118778-12	OB-14B-081616	Dissolved	Water	FILTRATION	
460-118778-13	OB-24-081616	Dissolved	Water	FILTRATION	
460-118778-14	RW-16-081616	Dissolved	Water	FILTRATION	
460-118778-15	OB-3-081616	Dissolved	Water	FILTRATION	
MB 460-386733/1-B	Method Blank	Dissolved	Water	FILTRATION	
460-118778-10 MS	OB-13-081616	Dissolved	Water	FILTRATION	
460-118778-10 DU	OB-13-081616	Dissolved	Water	FILTRATION	

Prep Batch: 386739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Dissolved	Water	3010A	386733
460-118778-3	OB-17-081616	Dissolved	Water	3010A	386733
460-118778-4	OB-18-081616	Dissolved	Water	3010A	386733
460-118778-5	OB-10-081616	Dissolved	Water	3010A	386733
460-118778-6	OB-16-081616	Dissolved	Water	3010A	386733
460-118778-7	OB-28-081616	Dissolved	Water	3010A	386733
460-118778-8	Dup-01-081616	Dissolved	Water	3010A	386733
460-118778-9	OB-29-081616	Dissolved	Water	3010A	386733
460-118778-10	OB-13-081616	Dissolved	Water	3010A	386733
460-118778-11	OB-14A-081616	Dissolved	Water	3010A	386733
460-118778-12	OB-14B-081616	Dissolved	Water	3010A	386733
460-118778-13	OB-24-081616	Dissolved	Water	3010A	386733
460-118778-14	RW-16-081616	Dissolved	Water	3010A	386733
460-118778-15	OB-3-081616	Dissolved	Water	3010A	386733
MB 460-386733/1-B	Method Blank	Dissolved	Water	3010A	386733
LCS 460-386739/2-A	Lab Control Sample	Total/NA	Water	3010A	
460-118778-10 MS	OB-13-081616	Dissolved	Water	3010A	386733
460-118778-10 DU	OB-13-081616	Dissolved	Water	3010A	386733

Analysis Batch: 386872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Dissolved	Water	6020A	386739
460-118778-3	OB-17-081616	Dissolved	Water	6020A	386739
460-118778-4	OB-18-081616	Dissolved	Water	6020A	386739
460-118778-5	OB-10-081616	Dissolved	Water	6020A	386739
460-118778-6	OB-16-081616	Dissolved	Water	6020A	386739
460-118778-7	OB-28-081616	Dissolved	Water	6020A	386739
460-118778-8	Dup-01-081616	Dissolved	Water	6020A	386739
460-118778-9	OB-29-081616	Dissolved	Water	6020A	386739
460-118778-10	OB-13-081616	Dissolved	Water	6020A	386739
460-118778-11	OB-14A-081616	Dissolved	Water	6020A	386739
460-118778-12	OB-14B-081616	Dissolved	Water	6020A	386739
460-118778-13	OB-24-081616	Dissolved	Water	6020A	386739
460-118778-14	RW-16-081616	Dissolved	Water	6020A	386739
460-118778-15	OB-3-081616	Dissolved	Water	6020A	386739
MB 460-386733/1-B	Method Blank	Dissolved	Water	6020A	386739
LCS 460-386739/2-A	Lab Control Sample	Total/NA	Water	6020A	386739
460-118778-10 MS	OB-13-081616	Dissolved	Water	6020A	386739
460-118778-10 DU	OB-13-081616	Dissolved	Water	6020A	386739

Metals (Continued)

Prep Batch: 386939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Total/NA	Water	3010A	
460-118778-3	OB-17-081616	Total/NA	Water	3010A	
460-118778-4	OB-18-081616	Total/NA	Water	3010A	
460-118778-5	OB-10-081616	Total/NA	Water	3010A	
460-118778-6	OB-16-081616	Total/NA	Water	3010A	
460-118778-7	OB-28-081616	Total/NA	Water	3010A	
460-118778-8	Dup-01-081616	Total/NA	Water	3010A	
460-118778-9	OB-29-081616	Total/NA	Water	3010A	
460-118778-10	OB-13-081616	Total/NA	Water	3010A	
460-118778-11	OB-14A-081616	Total/NA	Water	3010A	
460-118778-12	OB-14B-081616	Total/NA	Water	3010A	
460-118778-13	OB-24-081616	Total/NA	Water	3010A	
460-118778-14	RW-16-081616	Total/NA	Water	3010A	
460-118778-15	OB-3-081616	Total/NA	Water	3010A	
MB 460-386939/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-386939/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-118778-10 MS	OB-13-081616	Total/NA	Water	3010A	
460-118778-10 DU	OB-13-081616	Total/NA	Water	3010A	

Analysis Batch: 387280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-15	OB-3-081616	Total/NA	Water	6020A	386939

Analysis Batch: 387282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Total/NA	Water	6020A	386939

General Chemistry

Analysis Batch: 385583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Total/NA	Water	SM 2320B	
460-118778-3	OB-17-081616	Total/NA	Water	SM 2320B	
460-118778-4	OB-18-081616	Total/NA	Water	SM 2320B	
460-118778-5	OB-10-081616	Total/NA	Water	SM 2320B	
460-118778-6	OB-16-081616	Total/NA	Water	SM 2320B	
MB 460-385583/1	Method Blank	Total/NA	Water	SM 2320B	
LCSSRM 460-385583/2	Lab Control Sample	Total/NA	Water	SM 2320B	
460-118778-5 DU	OB-10-081616	Total/NA	Water	SM 2320B	

Analysis Batch: 386086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-7	OB-28-081616	Total/NA	Water	SM 2320B	
460-118778-8	Dup-01-081616	Total/NA	Water	SM 2320B	
460-118778-9	OB-29-081616	Total/NA	Water	SM 2320B	
460-118778-10	OB-13-081616	Total/NA	Water	SM 2320B	
460-118778-11	OB-14A-081616	Total/NA	Water	SM 2320B	
460-118778-12	OB-14B-081616	Total/NA	Water	SM 2320B	
460-118778-13	OB-24-081616	Total/NA	Water	SM 2320B	
460-118778-14	RW-16-081616	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 386086 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-15	OB-3-081616	Total/NA	Water	SM 2320B	
MB 460-386086/1	Method Blank	Total/NA	Water	SM 2320B	
LLCS 460-386086/2	Lab Control Sample	Total/NA	Water	SM 2320B	
460-118778-10 DU	OB-13-081616	Total/NA	Water	SM 2320B	

Prep Batch: 387026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Total/NA	Water	9012B	
460-118778-3	OB-17-081616	Total/NA	Water	9012B	
460-118778-4	OB-18-081616	Total/NA	Water	9012B	
460-118778-5	OB-10-081616	Total/NA	Water	9012B	
460-118778-6	OB-16-081616	Total/NA	Water	9012B	
460-118778-7	OB-28-081616	Total/NA	Water	9012B	
460-118778-8	Dup-01-081616	Total/NA	Water	9012B	
460-118778-10	OB-13-081616	Total/NA	Water	9012B	
MB 460-387026/1-A	Method Blank	Total/NA	Water	9012B	
HLCS 460-387026/3-A	Lab Control Sample	Total/NA	Water	9012B	
LCS 460-387026/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-118778-10 MS	OB-13-081616	Total/NA	Water	9012B	
460-118778-10 MSD	OB-13-081616	Total/NA	Water	9012B	

Analysis Batch: 387210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-2	FB-01-081616	Total/NA	Water	9012B	387026
460-118778-3	OB-17-081616	Total/NA	Water	9012B	387026
460-118778-4	OB-18-081616	Total/NA	Water	9012B	387026
460-118778-5	OB-10-081616	Total/NA	Water	9012B	387026
460-118778-6	OB-16-081616	Total/NA	Water	9012B	387026
460-118778-7	OB-28-081616	Total/NA	Water	9012B	387026
460-118778-8	Dup-01-081616	Total/NA	Water	9012B	387026
460-118778-10	OB-13-081616	Total/NA	Water	9012B	387026
MB 460-387026/1-A	Method Blank	Total/NA	Water	9012B	387026
HLCS 460-387026/3-A	Lab Control Sample	Total/NA	Water	9012B	387026
LCS 460-387026/2-A	Lab Control Sample	Total/NA	Water	9012B	387026
460-118778-10 MS	OB-13-081616	Total/NA	Water	9012B	387026
460-118778-10 MSD	OB-13-081616	Total/NA	Water	9012B	387026

Prep Batch: 387699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-9	OB-29-081616	Total/NA	Water	9012B	
460-118778-11	OB-14A-081616	Total/NA	Water	9012B	
460-118778-12	OB-14B-081616	Total/NA	Water	9012B	
460-118778-13	OB-24-081616	Total/NA	Water	9012B	
460-118778-14	RW-16-081616	Total/NA	Water	9012B	
460-118778-15	OB-3-081616	Total/NA	Water	9012B	
MB 460-387699/1-A	Method Blank	Total/NA	Water	9012B	
HLCS 460-387699/3-A	Lab Control Sample	Total/NA	Water	9012B	
LLCS 460-387699/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-118817-F-6-E MS	Matrix Spike	Total/NA	Water	9012B	
460-118817-F-6-F MSD	Matrix Spike Duplicate	Total/NA	Water	9012B	

General Chemistry (Continued)

Analysis Batch: 387726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118778-9	OB-29-081616	Total/NA	Water	9012B	387699
460-118778-11	OB-14A-081616	Total/NA	Water	9012B	387699
460-118778-12	OB-14B-081616	Total/NA	Water	9012B	387699
460-118778-13	OB-24-081616	Total/NA	Water	9012B	387699
460-118778-14	RW-16-081616	Total/NA	Water	9012B	387699
460-118778-15	OB-3-081616	Total/NA	Water	9012B	387699
MB 460-387699/1-A	Method Blank	Total/NA	Water	9012B	387699
HLCS 460-387699/3-A	Lab Control Sample	Total/NA	Water	9012B	387699
LLCS 460-387699/2-A	Lab Control Sample	Total/NA	Water	9012B	387699
460-118817-F-6-E MS	Matrix Spike	Total/NA	Water	9012B	387699
460-118817-F-6-F MSD	Matrix Spike Duplicate	Total/NA	Water	9012B	387699

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: TB-01-081616

Date Collected: 08/16/16 00:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386373	08/23/16 23:12	KLB	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 12:41	DAS	TAL EDI

Client Sample ID: FB-01-081616

Date Collected: 08/16/16 09:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386373	08/23/16 23:40	KLB	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 13:06	DAS	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387153	08/27/16 13:29	MMC	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	386797	08/26/16 16:56	MMC	TAL EDI
Total/NA	Prep	3510C			386152	08/22/16 19:33	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386237	08/23/16 09:18	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385734	08/19/16 12:33	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386733	08/25/16 09:59	MDC	TAL EDI
Dissolved	Prep	3010A			386739	08/25/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	386872	08/26/16 00:07	VAD	TAL EDI
Total/NA	Prep	3010A			386939	08/26/16 09:08	QZY	TAL EDI
Total/NA	Analysis	6020A		2	387282	08/27/16 01:16	VAD	TAL EDI
Total/NA	Prep	3010A			386939	08/26/16 09:08	QZY	TAL EDI
Total/NA	Analysis	6020A		2	386342	08/26/16 15:35	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386530	08/24/16 12:06	RBS	TAL EDI
Dissolved	Prep	7470A			386531	08/24/16 12:13	RBS	TAL EDI
Dissolved	Analysis	7470A		1	386593	08/24/16 15:00	RBS	TAL EDI
Total/NA	Prep	7470A			386295	08/23/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 13:42	RBS	TAL EDI
Total/NA	Prep	9012B			387026	08/26/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387210	08/27/16 14:38	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	385583	08/18/16 12:00	IAA	TAL EDI

Client Sample ID: OB-17-081616

Date Collected: 08/16/16 09:50
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386373	08/24/16 00:07	KLB	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 15:36	DAS	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387153	08/27/16 13:50	MMC	TAL EDI

Client Sample ID: OB-17-081616

Lab Sample ID: 460-118778-3

Date Collected: 08/16/16 09:50

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	386477	08/24/16 19:32	MMC	TAL EDI
Total/NA	Prep	3510C			386152	08/22/16 19:33	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386237	08/23/16 09:34	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	5	385736	08/20/16 21:53	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386733	08/25/16 09:59	MDC	TAL EDI
Dissolved	Prep	3010A			386739	08/25/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	386872	08/26/16 00:13	VAD	TAL EDI
Total/NA	Prep	3010A			386939	08/26/16 09:08	QZY	TAL EDI
Total/NA	Analysis	6020A		2	386342	08/26/16 15:37	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386530	08/24/16 12:06	RBS	TAL EDI
Dissolved	Prep	7470A			386531	08/24/16 12:13	RBS	TAL EDI
Dissolved	Analysis	7470A		1	386593	08/24/16 15:02	RBS	TAL EDI
Total/NA	Prep	7470A			386295	08/23/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 13:47	RBS	TAL EDI
Total/NA	Prep	9012B			387026	08/26/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387210	08/27/16 14:39	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	385583	08/18/16 12:00	IAA	TAL EDI

Client Sample ID: OB-18-081616

Lab Sample ID: 460-118778-4

Date Collected: 08/16/16 10:10

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386373	08/24/16 00:35	KLB	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 16:01	DAS	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387153	08/27/16 14:11	MMC	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	386477	08/24/16 20:00	MMC	TAL EDI
Total/NA	Prep	3510C			386152	08/22/16 19:33	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386237	08/23/16 09:50	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385734	08/19/16 13:10	FPO	TAL EDI
Total/NA	Analysis	9056A	DL	2	386598	08/24/16 23:05	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			386733	08/25/16 09:59	MDC	TAL EDI
Dissolved	Prep	3010A			386739	08/25/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	386872	08/26/16 00:19	VAD	TAL EDI
Total/NA	Prep	3010A			386939	08/26/16 09:08	QZY	TAL EDI
Total/NA	Analysis	6020A		2	386342	08/26/16 15:40	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386530	08/24/16 12:06	RBS	TAL EDI
Dissolved	Prep	7470A			386531	08/24/16 12:13	RBS	TAL EDI
Dissolved	Analysis	7470A		1	386593	08/24/16 15:04	RBS	TAL EDI
Total/NA	Prep	7470A			386295	08/23/16 11:57	RBS	TAL EDI

Client Sample ID: OB-18-081616

Lab Sample ID: 460-118778-4

Date Collected: 08/16/16 10:10

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	386345	08/23/16 13:49	RBS	TAL EDI
Total/NA	Prep	9012B			387026	08/26/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387210	08/27/16 14:40	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	385583	08/18/16 12:00	IAA	TAL EDI

Client Sample ID: OB-10-081616

Lab Sample ID: 460-118778-5

Date Collected: 08/16/16 10:00

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386373	08/24/16 01:30	KLB	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 18:57	DAS	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387153	08/27/16 14:32	MMC	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	386477	08/24/16 20:29	MMC	TAL EDI
Total/NA	Prep	3510C			386152	08/22/16 19:33	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386237	08/23/16 10:06	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385734	08/19/16 13:28	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386733	08/25/16 09:59	MDC	TAL EDI
Dissolved	Prep	3010A			386739	08/25/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	386872	08/26/16 00:25	VAD	TAL EDI
Total/NA	Prep	3010A			386939	08/26/16 09:08	QZY	TAL EDI
Total/NA	Analysis	6020A		2	386342	08/26/16 15:53	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386530	08/24/16 12:06	RBS	TAL EDI
Dissolved	Prep	7470A			386531	08/24/16 12:13	RBS	TAL EDI
Dissolved	Analysis	7470A		1	386593	08/24/16 15:05	RBS	TAL EDI
Total/NA	Prep	7470A			386295	08/23/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 13:51	RBS	TAL EDI
Total/NA	Prep	9012B			387026	08/26/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387210	08/27/16 14:44	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	385583	08/18/16 12:00	IAA	TAL EDI

Client Sample ID: OB-16-081616

Lab Sample ID: 460-118778-6

Date Collected: 08/16/16 11:00

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386373	08/24/16 01:58	KLB	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 16:26	DAS	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387153	08/27/16 14:54	MMC	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI

Client Sample ID: OB-16-081616

Lab Sample ID: 460-118778-6

Date Collected: 08/16/16 11:00

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D SIM		1	386477	08/24/16 20:58	MMC	TAL EDI
Total/NA	Prep	3510C			386152	08/22/16 19:33	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386237	08/23/16 10:22	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385734	08/19/16 13:47	FPO	TAL EDI
Total/NA	Analysis	9056A	DL	20	385736	08/20/16 22:11	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386733	08/25/16 09:59	MDC	TAL EDI
Dissolved	Prep	3010A			386739	08/25/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	386872	08/26/16 00:54	VAD	TAL EDI
Total/NA	Prep	3010A			386939	08/26/16 09:08	QZY	TAL EDI
Total/NA	Analysis	6020A		2	386342	08/26/16 15:45	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386530	08/24/16 12:06	RBS	TAL EDI
Dissolved	Prep	7470A			386531	08/24/16 12:13	RBS	TAL EDI
Dissolved	Analysis	7470A		1	386593	08/24/16 15:07	RBS	TAL EDI
Total/NA	Prep	7470A			386295	08/23/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 13:53	RBS	TAL EDI
Total/NA	Prep	9012B			387026	08/26/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387210	08/27/16 14:45	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	385583	08/18/16 12:00	IAA	TAL EDI

Client Sample ID: OB-28-081616

Lab Sample ID: 460-118778-7

Date Collected: 08/16/16 12:05

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386373	08/24/16 02:25	KLB	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 16:52	DAS	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387153	08/27/16 15:15	MMC	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	386797	08/26/16 18:24	MMC	TAL EDI
Total/NA	Prep	3510C			386152	08/22/16 19:33	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386237	08/23/16 10:38	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385734	08/19/16 14:05	FPO	TAL EDI
Total/NA	Analysis	9056A	DL	100	385736	08/20/16 22:30	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386733	08/25/16 09:59	MDC	TAL EDI
Dissolved	Prep	3010A			386739	08/25/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	386872	08/26/16 01:00	VAD	TAL EDI
Total/NA	Prep	3010A			386939	08/26/16 09:08	QZY	TAL EDI
Total/NA	Analysis	6020A		2	386342	08/26/16 16:36	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386530	08/24/16 12:06	RBS	TAL EDI
Dissolved	Prep	7470A			386531	08/24/16 12:13	RBS	TAL EDI
Dissolved	Analysis	7470A		1	386593	08/24/16 15:09	RBS	TAL EDI
Total/NA	Prep	7470A			386295	08/23/16 11:57	RBS	TAL EDI

Client Sample ID: OB-28-081616

Lab Sample ID: 460-118778-7

Date Collected: 08/16/16 12:05

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	386345	08/23/16 13:55	RBS	TAL EDI
Total/NA	Prep	9012B			387026	08/26/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387210	08/27/16 14:46	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	386086	08/22/16 13:34	IAA	TAL EDI

Client Sample ID: Dup-01-081616

Lab Sample ID: 460-118778-8

Date Collected: 08/16/16 12:00

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386373	08/24/16 02:53	KLB	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 19:22	DAS	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387153	08/27/16 15:36	MMC	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387262	08/28/16 09:35	CAZ	TAL EDI
Total/NA	Prep	3510C			386152	08/22/16 19:33	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386235	08/23/16 10:57	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385734	08/19/16 14:23	FPO	TAL EDI
Total/NA	Analysis	9056A	DL	2	386598	08/24/16 23:23	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			386733	08/25/16 09:59	MDC	TAL EDI
Dissolved	Prep	3010A			386739	08/25/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	386872	08/26/16 01:06	VAD	TAL EDI
Total/NA	Prep	3010A			386939	08/26/16 09:08	QZY	TAL EDI
Total/NA	Analysis	6020A		2	386342	08/26/16 16:39	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386530	08/24/16 12:06	RBS	TAL EDI
Dissolved	Prep	7470A			386531	08/24/16 12:13	RBS	TAL EDI
Dissolved	Analysis	7470A		1	386593	08/24/16 15:49	RBS	TAL EDI
Total/NA	Prep	7470A			386295	08/23/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 13:57	RBS	TAL EDI
Total/NA	Prep	9012B			387026	08/26/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387210	08/27/16 14:47	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	386086	08/22/16 13:34	IAA	TAL EDI

Client Sample ID: OB-29-081616

Lab Sample ID: 460-118778-9

Date Collected: 08/16/16 11:40

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386373	08/24/16 03:20	KLB	TAL EDI
Total/NA	Analysis	8260C SIM		1	386381	08/23/16 23:14	DAS	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387153	08/27/16 15:57	MMC	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	386797	08/26/16 19:22	MMC	TAL EDI
Total/NA	Prep	3510C			386152	08/22/16 19:33	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386235	08/23/16 11:12	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385734	08/19/16 14:41	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386733	08/25/16 09:59	MDC	TAL EDI
Dissolved	Prep	3010A			386739	08/25/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	386872	08/26/16 01:12	VAD	TAL EDI
Total/NA	Prep	3010A			386939	08/26/16 09:08	QZY	TAL EDI
Total/NA	Analysis	6020A		2	386342	08/26/16 16:41	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386530	08/24/16 12:06	RBS	TAL EDI
Dissolved	Prep	7470A			386531	08/24/16 12:13	RBS	TAL EDI
Dissolved	Analysis	7470A		1	386593	08/24/16 15:51	RBS	TAL EDI
Total/NA	Prep	7470A			386295	08/23/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 13:58	RBS	TAL EDI
Total/NA	Prep	9012B			387699	08/30/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 18:48	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	386086	08/22/16 13:34	IAA	TAL EDI

Client Sample ID: OB-13-081616

Date Collected: 08/16/16 14:00
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386373	08/24/16 01:02	KLB	TAL EDI
Total/NA	Analysis	8260C SIM		1	386381	08/23/16 23:39	DAS	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387153	08/27/16 12:55	MMC	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	386477	08/24/16 18:34	MMC	TAL EDI
Total/NA	Prep	3510C			386152	08/22/16 19:33	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386237	08/23/16 08:31	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385734	08/19/16 15:00	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386733	08/25/16 09:59	MDC	TAL EDI
Dissolved	Prep	3010A			386739	08/25/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	386872	08/25/16 23:56	VAD	TAL EDI
Total/NA	Prep	3010A			386939	08/26/16 09:08	QZY	TAL EDI
Total/NA	Analysis	6020A		2	386342	08/26/16 15:17	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386530	08/24/16 12:06	RBS	TAL EDI
Dissolved	Prep	7470A			386531	08/24/16 12:13	RBS	TAL EDI
Dissolved	Analysis	7470A		1	386593	08/24/16 14:49	RBS	TAL EDI
Total/NA	Prep	7470A			386295	08/23/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 13:31	RBS	TAL EDI
Total/NA	Prep	9012B			387026	08/26/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387210	08/27/16 14:35	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	386086	08/22/16 13:34	IAA	TAL EDI

Client Sample ID: OB-14A-081616

Lab Sample ID: 460-118778-11

Date Collected: 08/16/16 14:30

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386373	08/24/16 03:48	KLB	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 17:17	DAS	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387153	08/27/16 16:19	MMC	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	386797	08/26/16 19:51	MMC	TAL EDI
Total/NA	Prep	3510C			386152	08/22/16 19:33	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386235	08/23/16 11:27	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385734	08/19/16 15:18	FPO	TAL EDI
Total/NA	Analysis	9056A	DL	5	386598	08/24/16 23:41	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			386733	08/25/16 09:59	MDC	TAL EDI
Dissolved	Prep	3010A			386739	08/25/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	386872	08/26/16 01:17	VAD	TAL EDI
Total/NA	Prep	3010A			386939	08/26/16 09:08	QZY	TAL EDI
Total/NA	Analysis	6020A		2	386342	08/26/16 16:44	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386530	08/24/16 12:06	RBS	TAL EDI
Dissolved	Prep	7470A			386531	08/24/16 12:13	RBS	TAL EDI
Dissolved	Analysis	7470A		1	386593	08/24/16 15:53	RBS	TAL EDI
Total/NA	Prep	7470A			386295	08/23/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 14:00	RBS	TAL EDI
Total/NA	Prep	9012B			387699	08/30/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 18:49	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	386086	08/22/16 13:34	IAA	TAL EDI

Client Sample ID: OB-14B-081616

Lab Sample ID: 460-118778-12

Date Collected: 08/16/16 14:35

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386373	08/24/16 04:16	KLB	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 17:42	DAS	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387153	08/27/16 16:40	MMC	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	386797	08/26/16 20:20	MMC	TAL EDI
Total/NA	Prep	3510C			386152	08/22/16 19:33	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386235	08/23/16 11:42	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385734	08/19/16 17:26	FPO	TAL EDI
Total/NA	Analysis	9056A	DL	20	385736	08/20/16 22:48	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386733	08/25/16 09:59	MDC	TAL EDI
Dissolved	Prep	3010A			386739	08/25/16 10:31	MDC	TAL EDI
Dissolved	Analysis	6020A		2	386872	08/26/16 01:23	VAD	TAL EDI
Total/NA	Prep	3010A			386939	08/26/16 09:08	QZY	TAL EDI

Client Sample ID: OB-14B-081616

Lab Sample ID: 460-118778-12

Date Collected: 08/16/16 14:35

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6020A		2	386342	08/26/16 16:47	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386530	08/24/16 12:06	RBS	TAL EDI
Dissolved	Prep	7470A			386531	08/24/16 12:13	RBS	TAL EDI
Dissolved	Analysis	7470A		1	386593	08/24/16 15:55	RBS	TAL EDI
Total/NA	Prep	7470A			386295	08/23/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 14:02	RBS	TAL EDI
Total/NA	Prep	9012B			387699	08/30/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 18:49	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	386086	08/22/16 13:34	IAA	TAL EDI

Client Sample ID: OB-24-081616

Lab Sample ID: 460-118778-13

Date Collected: 08/16/16 15:40

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386373	08/24/16 04:43	KLB	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 18:07	DAS	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387153	08/27/16 17:01	MMC	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	386797	08/26/16 20:49	MMC	TAL EDI
Total/NA	Prep	3510C			386152	08/22/16 19:33	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386235	08/23/16 11:57	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	50	385736	08/20/16 23:06	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386733	08/25/16 09:59	MDC	TAL EDI
Dissolved	Prep	3010A			386739	08/25/16 10:31	MDC	TAL EDI
Dissolved	Analysis	6020A		2	386872	08/26/16 01:29	VAD	TAL EDI
Total/NA	Prep	3010A			386939	08/26/16 09:08	QZY	TAL EDI
Total/NA	Analysis	6020A		2	386342	08/26/16 16:49	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386530	08/24/16 12:06	RBS	TAL EDI
Dissolved	Prep	7470A			386531	08/24/16 12:13	RBS	TAL EDI
Dissolved	Analysis	7470A		1	386593	08/24/16 15:57	RBS	TAL EDI
Total/NA	Prep	7470A			386295	08/23/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 14:08	RBS	TAL EDI
Total/NA	Prep	9012B			387699	08/30/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 18:50	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	386086	08/22/16 13:34	IAA	TAL EDI

Client Sample ID: RW-16-081616

Lab Sample ID: 460-118778-14

Date Collected: 08/16/16 15:45

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386373	08/24/16 05:11	KLB	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 18:32	DAS	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387153	08/27/16 19:51	MMC	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	386797	08/26/16 21:18	MMC	TAL EDI
Total/NA	Prep	3510C			386152	08/22/16 19:33	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386235	08/23/16 12:12	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385734	08/19/16 18:03	FPO	TAL EDI
Total/NA	Analysis	9056A	DL	20	385736	08/20/16 23:24	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386733	08/25/16 09:59	MDC	TAL EDI
Dissolved	Prep	3010A			386739	08/25/16 10:31	MDC	TAL EDI
Dissolved	Analysis	6020A		2	386872	08/26/16 01:35	VAD	TAL EDI
Total/NA	Prep	3010A			386939	08/26/16 09:08	QZY	TAL EDI
Total/NA	Analysis	6020A		2	386342	08/26/16 16:52	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386530	08/24/16 12:06	RBS	TAL EDI
Dissolved	Prep	7470A			386531	08/24/16 12:13	RBS	TAL EDI
Dissolved	Analysis	7470A		1	386593	08/24/16 15:59	RBS	TAL EDI
Total/NA	Prep	7470A			386295	08/23/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 14:10	RBS	TAL EDI
Total/NA	Prep	9012B			387699	08/30/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 18:51	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	386086	08/22/16 13:34	IAA	TAL EDI

Client Sample ID: OB-3-081616

Lab Sample ID: 460-118778-15

Date Collected: 08/16/16 16:10

Matrix: Water

Date Received: 08/17/16 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386373	08/24/16 05:39	KLB	TAL EDI
Total/NA	Analysis	8260C SIM		1	386381	08/24/16 00:04	DAS	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387247	08/28/16 11:01	MMC	TAL EDI
Total/NA	Prep	3510C			385957	08/21/16 12:34	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	386797	08/26/16 21:46	MMC	TAL EDI
Total/NA	Prep	3510C			386152	08/22/16 19:33	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386235	08/23/16 12:26	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385734	08/19/16 18:21	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386733	08/25/16 09:59	MDC	TAL EDI
Dissolved	Prep	3010A			386739	08/25/16 10:31	MDC	TAL EDI
Dissolved	Analysis	6020A		2	386872	08/26/16 01:41	VAD	TAL EDI
Total/NA	Prep	3010A			386939	08/26/16 09:08	QZY	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 14:11	PHP	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Client Sample ID: OB-3-081616

Date Collected: 08/16/16 16:10
Date Received: 08/17/16 15:10

Lab Sample ID: 460-118778-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			386530	08/24/16 12:06	RBS	TAL EDI
Dissolved	Prep	7470A			386531	08/24/16 12:13	RBS	TAL EDI
Dissolved	Analysis	7470A		1	386593	08/24/16 16:01	RBS	TAL EDI
Total/NA	Prep	7470A			386295	08/23/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 14:11	RBS	TAL EDI
Total/NA	Prep	9012B			387699	08/30/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 18:55	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	386086	08/22/16 13:34	IAA	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Certification Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Laboratory: TestAmerica Edison

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New Jersey	NELAP	2	12028	06-30-17

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,4-Trichlorobenzene
8260C SIM		Water	1,2,3-Trichloropropane
8260C SIM		Water	1,2-Dibromo-3-Chloropropane
8260C SIM		Water	Ethylene Dibromide
8270D SIM	3510C	Water	Bis(2-chloroethyl)ether
9056A		Water	Chloride
9056A		Water	Sulfate

Method Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
9056A	Anions, Ion Chromatography	SW846	TAL EDI
6020A	Metals (ICP/MS)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
9012B	Cyanide, Total andor Amenable	SW846	TAL EDI
SM 2320B	Alkalinity	SM	TAL EDI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118778-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-118778-1	TB-01-081616	Water	08/16/16 00:00	08/17/16 15:10
460-118778-2	FB-01-081616	Water	08/16/16 09:00	08/17/16 15:10
460-118778-3	OB-17-081616	Water	08/16/16 09:50	08/17/16 15:10
460-118778-4	OB-18-081616	Water	08/16/16 10:10	08/17/16 15:10
460-118778-5	OB-10-081616	Water	08/16/16 10:00	08/17/16 15:10
460-118778-6	OB-16-081616	Water	08/16/16 11:00	08/17/16 15:10
460-118778-7	OB-28-081616	Water	08/16/16 12:05	08/17/16 15:10
460-118778-8	Dup-01-081616	Water	08/16/16 12:00	08/17/16 15:10
460-118778-9	OB-29-081616	Water	08/16/16 11:40	08/17/16 15:10
460-118778-10	OB-13-081616	Water	08/16/16 14:00	08/17/16 15:10
460-118778-11	OB-14A-081616	Water	08/16/16 14:30	08/17/16 15:10
460-118778-12	OB-14B-081616	Water	08/16/16 14:35	08/17/16 15:10
460-118778-13	OB-24-081616	Water	08/16/16 15:40	08/17/16 15:10
460-118778-14	RW-16-081616	Water	08/16/16 15:45	08/17/16 15:10
460-118778-15	OB-3-081616	Water	08/16/16 16:10	08/17/16 15:10

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

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THE LEADER IN ENVIRONMENTAL TESTING

460-118778 Chain of Custody

CHAIN OF CUSTODY REQUEST

Page 1 of 2

Name (for report and invoice) Tim Roeper	Samplers Name (Printed) Robert Lautenberg	Site/Project Identification Ford - Ringwood
Company Cornerstone Environmental Group	P. O. # 140802-015	State (Location of site): NJ: X NY: Other:
Address 100 Crystal Run Rd Suite 101	Analysis Turnaround Time: Standard X	Regulatory Program: DKQP:
City Middletown State NY 10941	Rush Charges Authorized For: 2 Week, 1 Week, Other	LAB USE ONLY Project No:
Phone 845 695 0200 Fax		Job No: 118778

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + TICs 8260B	TCL SVOC + TICs 8270C	TAL Metals - Total + Filtered (as applicable)	PCB's	Alkalinity, Total as CaCO3 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	Sample Numbers
TB-01-081616	8/16/16	-	BW	3	✓				✓	✓	✓	✓	-1
FB-01-081616	8/16/16	09:00	BW	13	✓	✓	✓	✓	✓	✓	✓	✓	-2
OB-17-081616	8/16/16	09:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-3
OB-18-081616	8/16/16	10:10	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-4
OB-10-081616	8/16/16	10:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-5
OB-16-081616	8/16/16	11:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-6
OB-28-081616	8/16/16	12:05	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-7
Dup-01-081616	8/16/16	12:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-8
OB-29-081616	8/16/16	11:40	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-9
OB-13-081616	8/16/16	14:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-10
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH Soil:													
6 = Other _____, 7 = Other _____ Water:													

Special Instructions Do not report 1,4 Dioxane for VOC's & SVOC's

Water Metals Filtered (Yes/No)? No

	Company	Date / Time	Received by	Company
Relinquished by 1)	Cornerstone	8/17/16 800	1)	TA
Relinquished by 2)	TA	8/17/16 1510	2) Alex Acierno	TA
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578) IR7 - NOES 30/09/02/08/04

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice): Tim Roeper	Samplers Name (Printed): Robert Lawrence Tenberg	Site/Project Identification: Ford - Ringwood
Company: Cornerstone Environmental Group	P. O. #: 140802-015	State (Location of site): NJ: X NY: Other:
		Regulatory Program: DKQP:
Address: 100 Crystal Run Rd, Suite 101	Analysis Turnaround Time: Standard X	
City: Middletown State: NY 10941	Rush Charges Authorized For: 2 Week / 1 Week / Other	
Phone: 845-695-0200 Fax:		

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOCs 15 TICs 8260B	TCL SVOCs 15 TICs 8270C	TAL Metals Total + Filtered for GW only	PCBs	Alkalinity, Total as $CaCO_3$ 2320B	Chloride 300.0	Sulfate 300.0	Cyanide				LAB USE ONLY Project No: / Job No: 718778 / Sample Numbers
OB-13-081616 MS	8/16/16	14:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-10
OB-13-081616 MSD	8/16/16	14:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-10
OB-14A-081616	8/16/16	14:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-11
OB-14B-081616	8/16/16	14:35	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-12
OB-24-081616	8/16/16	15:40	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-13
RW-16-081616	8/16/16	15:45	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-14
OB-3-081616	8/16/16	16:10	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-15
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH				Soil:												
6 = Other _____, 7 = Other _____				Water:												

Special Instructions Do not report 1,4 Dioxane for VOCs + SVOCs Water Metals Filtered (Yes/No)? No

Relinquished by	Company: Cornerstone	Date / Time: 8/17/16 8:00	Received by 1): [signature] Company: TA
Relinquished by 2): [signature]	Company: TestAmerica	Date / Time: 8/17/16 1610	Received by 2): Company:
Relinquished by 3):	Company:	Date / Time:	Received by 3): Company:
Relinquished by 4):	Company:	Date / Time:	Received by 4): Company:

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578) FR7 - NOCS

TestAmerica Edison
Receipt Temperature and pH Log

Page ____ of ____

Job Number: 118778

Number of Coolers: 5 IR Gun # 7

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	30 °C	30 °C	Cooler #4:	08 °C	08 °C	Cooler #7:	°C	°C
Cooler #2:	09 °C	09 °C	Cooler #5:	04 °C	04 °C	Cooler #8:	°C	°C
Cooler #3:	02 °C	02 °C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
2				LL											
3				LL											
4				LL											
5				LL											
6				LL											
7				LL											
8				LL											
9				LL											
10				LL											
10 DUP/MSD				LL											
rgns				LL											
11				LL											
12				LL											

If pH adjustments are required record the information below:

Sample No(s). adjusted: NA

Preservative Name/Conc.: NA Volume of Preservative used (ml): NA

Lot # of Preservative(s): NA Expiration Date: NA

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: [signature] Date: 8/17/16

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 118778

Number of Coolers: 3 IR Gun #: 7

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	3 °C	°C	Cooler #4:	6.8 °C	°C	Cooler #7:	°C	°C
Cooler #2:	0.9 °C	°C	Cooler #5:	0.4 °C	°C	Cooler #8:	°C	°C
Cooler #3:	0.2 °C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
13				42											
14				42											
15				42											

If pH adjustments are required record the information below:

Sample No(s). adjusted: NA

Preservative Name/Conc.: NA Volume of Preservative used (ml): NA

Lot # of Preservative(s): NA Expiration Date: NA

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: [illegible] Date: 8/17/16

Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 460-118778-1

Login Number: 118778
List Number: 1
Creator: Rivera, Kenneth

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3°C, 0.9°C, 0.2°C, 0.8°C, 0.4°C, IR #7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	See NCM
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-118817-1
Client Project/Site: FORD Ringwood Mines E203361

For:
Cornerstone Environmental Group, LLC
100 Crystal Run Road
Suite 101
Middletown, New York 10941

Attn: Tim Roeper

Maegen Pane

Authorized for release by:
8/31/2016 5:07:52 PM
Maegen Pane, Project Management Assistant I
(732)549-3900
maegen.pane@testamericainc.com

Designee for

Marie Meidhof, Project Manager II
(732)549-3900
marie.meidhof@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	This flag indicates the presumptive evidence of a compound.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.

HPLC/IC

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: TestAmerica Edison

Client: Cornerstone Environmental Group, LLC

Project Location: FORD Ringwood Mines E203361

Project Number: 460-118817-1

Laboratory Sample ID(s): 460-118817-1, 460-118817-2, 460-118817-3, 460-118817-4, 460-118817-5, 460-118817-6, 460-118817-7, 460-118817-8, 460-118817-9, 460-118817-10, 460-118817-11, 460-118817-12, 460-118817-13, 460-118817-14

Sampling Date(s): 08/17/2016

List DKQP Methods Used: 8260C, 8260C SIM, 8270D, 8270D SIM, 8082A, 6020A, 7470A, 9012B

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	☑Yes ☐No
1A	Were the method specified handling, preservation, and holding time requirements met?	☐Yes ☐No ☑ See case narrative
1B	*EPH Method:* Was the EPH method conducted without significant modifications? (see Section 11.3 of respective DKQ methods)	☐Yes ☐No ☑N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody documents(s)?	☐Yes ☐No ☑ See case narrative
3	Were samples received at an appropriate temperature (4±2° C)?	☑Yes ☐No ☐N/A
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	☐Yes ☑No
5	a) Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	☐Yes ☐No ☑ See case narrative
	b) Were these reporting limits met?	☐Yes ☐No ☐N/A ☑ See case narrative
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	☑Yes ☐No
7	Are project-specific matrix spike and/or laboratory duplicates included in this data set?	☐Yes ☑No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information should be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet requirements for "Data of Known Quality."

Job ID: 460-118817-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: Cornerstone Environmental Group, LLC

Project: FORD Ringwood Mines E203361

Report Number: 460-118817-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 8/18/2016 11:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 0.1º C, 0.7º C, 0.9º C, 1.3º C and 1.8º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS DKQP AQUEOUS

Samples OB-30C-081716 (460-118817-1), OB-33-081716 (460-118817-2), OB-12-081716 (460-118817-3), OB-30B-081716 (460-118817-4), OB-15B-081716 (460-118817-5), OB-2-081716 (460-118817-6), OB-32-081716 (460-118817-7), OB-11R-081716 (460-118817-8), OB-31-081716 (460-118817-9), SC-2-081716 (460-118817-10), OB-27-081716 (460-118817-11), OB-19-081716 (460-118817-12), OB-4-081716 (460-118817-13) and TB-02-081716 (460-118817-14) were analyzed for Volatile organic compounds DKQP Aqueous in accordance with EPA SW-846 Methods 8260C DKQP. The samples were analyzed on 08/23/2016.

The continuing calibration verification (CCV) analyzed in batch 460-386113 was outside the method criteria for the following analyte(s): 1,1,2-Trichloro-1,2,2-trifluoroethane (biased high) and Bromoform (biased low). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-386206 was outside the method criteria for the following analyte(s): 1,1,2-Trichloro-1,2,2-trifluoroethane and Bromoform. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No difficulties were encountered during the Volatile organic compounds DKQP Aqueous analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) DKQP

Job ID: 460-118817-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

Samples OB-30C-081716 (460-118817-1), OB-33-081716 (460-118817-2), OB-12-081716 (460-118817-3), OB-30B-081716 (460-118817-4), OB-15B-081716 (460-118817-5), OB-2-081716 (460-118817-6), OB-32-081716 (460-118817-7), OB-11R-081716 (460-118817-8), OB-31-081716 (460-118817-9), SC-2-081716 (460-118817-10), OB-27-081716 (460-118817-11), OB-19-081716 (460-118817-12) and OB-4-081716 (460-118817-13) were analyzed for Semivolatile organic compounds (GC/MS) DKQP in accordance with EPA SW-846 Method 8270D DKQP. The samples were prepared on 08/22/2016 and analyzed on 08/26/2016 and 08/29/2016.

Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: OB-11R-081716 (460-118817-8). These results have been reported and qualified.

Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: OB-31-081716 (460-118817-9). These results have been reported and qualified.

Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: OB-27-081716 (460-118817-11). These results have been reported and qualified.

A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for five analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 460-386082 had one analytes (2-Methylphenol) outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

The continuing calibration verification (CCV) analyzed in 460-386667 was outside the method criteria for the following analyte(s): Phenol and Pentachlorophenol. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in 460-386897 was outside the method criteria for the following analyte(s): Phenol, Pentachlorophenol and 2-Fluorophenol (Surr). As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in 460-387329 was outside the method criteria for the following analyte(s): Phenol and 2-Fluorophenol (Surr). As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)

Samples OB-30C-081716 (460-118817-1), OB-33-081716 (460-118817-2), OB-12-081716 (460-118817-3), OB-30B-081716 (460-118817-4), OB-15B-081716 (460-118817-5), OB-2-081716 (460-118817-6), OB-32-081716 (460-118817-7), OB-11R-081716 (460-118817-8), OB-31-081716 (460-118817-9), SC-2-081716 (460-118817-10), OB-27-081716 (460-118817-11), OB-19-081716 (460-118817-12) and OB-4-081716 (460-118817-13) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) in accordance with EPA Method 8270C SIM DKQP. The samples were prepared on 08/22/2016 and analyzed on 08/28/2016 and 08/29/2016.

No difficulties were encountered during the semivolatile organic compounds - Selected Ion Mode (SIM) analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS) DKQP

Samples OB-30C-081716 (460-118817-1), OB-33-081716 (460-118817-2), OB-12-081716 (460-118817-3), OB-30B-081716 (460-118817-4), OB-15B-081716 (460-118817-5), OB-2-081716 (460-118817-6), OB-32-081716 (460-118817-7), OB-11R-081716

Job ID: 460-118817-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

(460-118817-8), OB-31-081716 (460-118817-9), SC-2-081716 (460-118817-10), OB-27-081716 (460-118817-11), OB-19-081716 (460-118817-12), OB-4-081716 (460-118817-13) and TB-02-081716 (460-118817-14) were analyzed for volatile organic compounds (GC-MS) DKQP in accordance with EPA SW-846 Method 8260C SIM DKQP. The samples were analyzed on 08/23/2016 and 08/24/2016.

No difficulties were encountered during the volatile organic compounds (GC-MS) DKQP analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS) DKQP

Samples OB-30C-081716 (460-118817-1), OB-33-081716 (460-118817-2), OB-12-081716 (460-118817-3), OB-30B-081716 (460-118817-4), OB-15B-081716 (460-118817-5), OB-2-081716 (460-118817-6), OB-32-081716 (460-118817-7), OB-11R-081716 (460-118817-8), OB-31-081716 (460-118817-9), SC-2-081716 (460-118817-10), OB-27-081716 (460-118817-11), OB-19-081716 (460-118817-12) and OB-4-081716 (460-118817-13) were analyzed for polychlorinated biphenyls (PCBs) DKQP in accordance with EPA SW-846 Method 8082A DKQP. The samples were prepared on 08/23/2016 and analyzed on 08/24/2016.

PCB-1260 failed the recovery criteria high for the MSD of sample 460-118898-4 in batch 460-386462.

The following sample required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: OB-4-081716 (460-118817-13). The reagent lot number used was: SLBC3181V.

Refer to the QC report for details.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

METALS DKQP

Samples OB-30C-081716 (460-118817-1), OB-33-081716 (460-118817-2), OB-12-081716 (460-118817-3), OB-30B-081716 (460-118817-4), OB-15B-081716 (460-118817-5), OB-2-081716 (460-118817-6), OB-32-081716 (460-118817-7), OB-11R-081716 (460-118817-8), OB-31-081716 (460-118817-9), SC-2-081716 (460-118817-10), OB-27-081716 (460-118817-11), OB-19-081716 (460-118817-12) and OB-4-081716 (460-118817-13) were analyzed for Metals DKQP in accordance with EPA SW-846 Method 6020A DKQP. The samples were prepared and analyzed on 08/26/2016.

for the duplicate of sample OB-30C-081716DU (460-118817-1). Refer to the QC report for details.

Samples OB-30C-081716 (460-118817-1)[2X], OB-33-081716 (460-118817-2)[2X], OB-12-081716 (460-118817-3)[2X], OB-30B-081716 (460-118817-4)[2X], OB-15B-081716 (460-118817-5)[2X], OB-2-081716 (460-118817-6)[2X], OB-32-081716 (460-118817-7)[2X], OB-11R-081716 (460-118817-8)[2X], OB-31-081716 (460-118817-9)[2X], SC-2-081716 (460-118817-10)[2X], OB-27-081716 (460-118817-11)[2X], OB-19-081716 (460-118817-12)[2X] and OB-4-081716 (460-118817-13)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Metals DKQP analysis.

All other quality control parameters were within the acceptance limits.

METALS

Samples OB-30C-081716 (460-118817-1), OB-33-081716 (460-118817-2), OB-12-081716 (460-118817-3), OB-30B-081716 (460-118817-4), OB-15B-081716 (460-118817-5), OB-2-081716 (460-118817-6), OB-32-081716 (460-118817-7), OB-11R-081716 (460-118817-8), OB-31-081716 (460-118817-9), SC-2-081716 (460-118817-10), OB-27-081716 (460-118817-11), OB-19-081716 (460-118817-12) and OB-4-081716 (460-118817-13) were analyzed for Metals in accordance with EPA SW-846 Method 6020A DKQP. The samples were prepared on 08/26/2016 and analyzed on 08/27/2016.

Aluminum exceeded the RPD limit for the duplicate of sample 460-118898-4. Refer to the QC report for details.

No other difficulties were encountered during the Metals analysis.

Job ID: 460-118817-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

All other quality control parameters were within the acceptance limits.

MERCURY DKQP

Samples OB-30C-081716 (460-118817-1), OB-33-081716 (460-118817-2), OB-12-081716 (460-118817-3), OB-30B-081716 (460-118817-4), OB-15B-081716 (460-118817-5), OB-2-081716 (460-118817-6), OB-32-081716 (460-118817-7), OB-11R-081716 (460-118817-8), OB-31-081716 (460-118817-9), SC-2-081716 (460-118817-10), OB-27-081716 (460-118817-11), OB-19-081716 (460-118817-12) and OB-4-081716 (460-118817-13) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 08/26/2016.

No difficulties were encountered during the dissolved Hg analysis.

All quality control parameters were within the acceptance limits.

MERCURY DKQP

Samples OB-30C-081716 (460-118817-1), OB-33-081716 (460-118817-2), OB-12-081716 (460-118817-3), OB-30B-081716 (460-118817-4), OB-15B-081716 (460-118817-5), OB-2-081716 (460-118817-6), OB-32-081716 (460-118817-7), OB-11R-081716 (460-118817-8), OB-31-081716 (460-118817-9), SC-2-081716 (460-118817-10), OB-27-081716 (460-118817-11), OB-19-081716 (460-118817-12) and OB-4-081716 (460-118817-13) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 08/23/2016.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

MERCURY, LOW LEVEL

Samples OB-30C-081716 (460-118817-1), OB-33-081716 (460-118817-2), OB-12-081716 (460-118817-3), OB-30B-081716 (460-118817-4), OB-15B-081716 (460-118817-5), OB-2-081716 (460-118817-6), OB-32-081716 (460-118817-7), OB-11R-081716 (460-118817-8), OB-31-081716 (460-118817-9), SC-2-081716 (460-118817-10), OB-27-081716 (460-118817-11), OB-19-081716 (460-118817-12) and OB-4-081716 (460-118817-13) were analyzed for Mercury, Low Level in accordance with EPA Method 1631E - Mercury, Low Level (CVAFS). The samples were analyzed on 08/21/2016 and 08/23/2016.

Fluoride failed the recovery criteria high for the MSD of sample OB-33-081716MSD (460-118817-2) in batch 460-385736.

Refer to the QC report for details.

Samples OB-30C-081716 (460-118817-1)[10X], OB-30B-081716 (460-118817-4)[20X], OB-32-081716 (460-118817-7)[20X], OB-11R-081716 (460-118817-8)[20X], OB-31-081716 (460-118817-9)[20X], SC-2-081716 (460-118817-10)[20X], OB-27-081716 (460-118817-11)[20X], OB-19-081716 (460-118817-12)[20X] and OB-4-081716 (460-118817-13)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Mercury, Low Level analysis.

All other quality control parameters were within the acceptance limits.

ALKALINITY

Samples OB-30C-081716 (460-118817-1), OB-33-081716 (460-118817-2), OB-12-081716 (460-118817-3), OB-30B-081716 (460-118817-4), OB-15B-081716 (460-118817-5), OB-2-081716 (460-118817-6), OB-32-081716 (460-118817-7), OB-11R-081716 (460-118817-8), OB-31-081716 (460-118817-9), SC-2-081716 (460-118817-10), OB-27-081716 (460-118817-11), OB-19-081716 (460-118817-12) and OB-4-081716 (460-118817-13) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 08/26/2016 and 08/30/2016.

No difficulties were encountered during the alkalinity analysis.

All quality control parameters were within the acceptance limits.

Job ID: 460-118817-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

CYANIDE

Samples OB-30C-081716 (460-118817-1), OB-33-081716 (460-118817-2), OB-12-081716 (460-118817-3), OB-30B-081716 (460-118817-4), OB-15B-081716 (460-118817-5), OB-2-081716 (460-118817-6), OB-32-081716 (460-118817-7), OB-11R-081716 (460-118817-8), OB-31-081716 (460-118817-9), SC-2-081716 (460-118817-10), OB-27-081716 (460-118817-11), OB-19-081716 (460-118817-12) and OB-4-081716 (460-118817-13) were analyzed for cyanide in accordance with EPA SW-846 Method 9012B (DKQP). The samples were prepared and analyzed on 08/29/2016 and 08/30/2016.

No difficulties were encountered during the cyanide analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-30C-081716 — Lab Sample ID: 460-118817-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.21	J	1.0	0.13	ug/L	1		8260C	Total/NA
Chloride - DL	34.9	D	1.20	0.30	mg/L	10		9056A	Total/NA
Sulfate - DL	26.5	D	6.00	1.05	mg/L	10		9056A	Total/NA
Arsenic	0.82	J	2.0	0.71	ug/L	2		6020A	Total/NA
Barium	17.3		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	103		8.0	3.0	ug/L	2		6020A	Total/NA
Lead	0.52	J	1.2	0.44	ug/L	2		6020A	Total/NA
Selenium	1.8	J	10.0	0.79	ug/L	2		6020A	Total/NA
Vanadium	5.1		4.0	1.4	ug/L	2		6020A	Total/NA
Aluminum	238		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	9550		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	19300		200	68.4	ug/L	2		6020A	Total/NA
Potassium	5290		200	74.8	ug/L	2		6020A	Total/NA
Calcium	40100		200	69.5	ug/L	2		6020A	Total/NA
Iron	397		120	49.1	ug/L	2		6020A	Total/NA
Arsenic	0.88	J	2.0	0.71	ug/L	2		6020A	Dissolved
Barium	14.1		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	56.2		8.0	3.0	ug/L	2		6020A	Dissolved
Selenium	2.6	J	10.0	0.79	ug/L	2		6020A	Dissolved
Vanadium	4.3		4.0	1.4	ug/L	2		6020A	Dissolved
Sodium	9190		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	18200		200	68.4	ug/L	2		6020A	Dissolved
Potassium	5260		200	74.8	ug/L	2		6020A	Dissolved
Calcium	39200		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	125		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	125		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-33-081716 — Lab Sample ID: 460-118817-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bis(2-ethylhexyl) phthalate	0.84	J	2.1	0.77	ug/L	1		8270D	Total/NA
Chloride	1.64		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	12.6		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	24.6		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	2.4	J	4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	40.7		8.0	3.0	ug/L	2		6020A	Total/NA
Vanadium	2.0	J	4.0	1.4	ug/L	2		6020A	Total/NA
Aluminum	317		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	5690		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	5880		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1030		200	74.8	ug/L	2		6020A	Total/NA
Calcium	12600		200	69.5	ug/L	2		6020A	Total/NA
Iron	446		120	49.1	ug/L	2		6020A	Total/NA
Barium	17.3		4.0	1.5	ug/L	2		6020A	Dissolved
Cobalt	1.8	J	4.0	1.5	ug/L	2		6020A	Dissolved
Copper	2.0	J	4.0	1.6	ug/L	2		6020A	Dissolved
Manganese	18.3		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	5780		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	5030		200	68.4	ug/L	2		6020A	Dissolved
Potassium	960		200	74.8	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: OB-33-081716 (Continued) — Lab Sample ID: 460-118817-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	13000		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	44.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	44.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-12-081716 — Lab Sample ID: 460-118817-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.04		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	10.4		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	2.3	J	4.0	1.5	ug/L	2		6020A	Total/NA
Copper	4.2		4.0	1.6	ug/L	2		6020A	Total/NA
Aluminum	33.9	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	2490		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	2680		200	68.4	ug/L	2		6020A	Total/NA
Potassium	526		200	74.8	ug/L	2		6020A	Total/NA
Calcium	6410		200	69.5	ug/L	2		6020A	Total/NA
Iron	54.6	J	120	49.1	ug/L	2		6020A	Total/NA
Barium	2.0	J	4.0	1.5	ug/L	2		6020A	Dissolved
Copper	3.1	J	4.0	1.6	ug/L	2		6020A	Dissolved
Sodium	2190		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	2360		200	68.4	ug/L	2		6020A	Dissolved
Potassium	537		200	74.8	ug/L	2		6020A	Dissolved
Calcium	6560		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	20.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	20.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-30B-081716 — Lab Sample ID: 460-118817-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	39.6		2.40	0.60	mg/L	20		9056A	Total/NA
Sulfate	32.7		12.0	2.10	mg/L	20		9056A	Total/NA
Barium	39.7		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	2.0	J	4.0	1.5	ug/L	2		6020A	Total/NA
Copper	2.4	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	1180		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	2.7	J	4.0	1.6	ug/L	2		6020A	Total/NA
Aluminum	39.8	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	31600		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	6540		200	68.4	ug/L	2		6020A	Total/NA
Potassium	3340		200	74.8	ug/L	2		6020A	Total/NA
Calcium	26900		200	69.5	ug/L	2		6020A	Total/NA
Iron	63.2	J	120	49.1	ug/L	2		6020A	Total/NA
Barium	39.6		4.0	1.5	ug/L	2		6020A	Dissolved
Cobalt	1.5	J	4.0	1.5	ug/L	2		6020A	Dissolved
Copper	1.9	J	4.0	1.6	ug/L	2		6020A	Dissolved
Manganese	1030		8.0	3.0	ug/L	2		6020A	Dissolved
Nickel	2.4	J	4.0	1.6	ug/L	2		6020A	Dissolved
Sodium	30100		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	5960		200	68.4	ug/L	2		6020A	Dissolved
Potassium	3310		200	74.8	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: OB-30B-081716 (Continued) — Lab Sample ID: 460-118817-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	27900		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	60.3		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	60.3		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-15B-081716 — Lab Sample ID: 460-118817-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.65		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	11.4		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	28.0		4.0	1.5	ug/L	2		6020A	Total/NA
Chromium	1.5	J	4.0	1.5	ug/L	2		6020A	Total/NA
Copper	1.9	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	1200		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	11.4		4.0	1.6	ug/L	2		6020A	Total/NA
Vanadium	1.8	J	4.0	1.4	ug/L	2		6020A	Total/NA
Aluminum	244		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	4040		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	5970		200	68.4	ug/L	2		6020A	Total/NA
Potassium	690		200	74.8	ug/L	2		6020A	Total/NA
Calcium	21300		200	69.5	ug/L	2		6020A	Total/NA
Iron	640		120	49.1	ug/L	2		6020A	Total/NA
Arsenic	0.78	J	2.0	0.71	ug/L	2		6020A	Dissolved
Manganese	136		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	4090		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	5250		200	68.4	ug/L	2		6020A	Dissolved
Potassium	697		200	74.8	ug/L	2		6020A	Dissolved
Calcium	22200		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	74.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	74.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-2-081716 — Lab Sample ID: 460-118817-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.81		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	8.94		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	5.3		4.0	1.5	ug/L	2		6020A	Total/NA
Copper	4.1		4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	16.0		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	52.0		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3920		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	4930		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1340		200	74.8	ug/L	2		6020A	Total/NA
Calcium	12000		200	69.5	ug/L	2		6020A	Total/NA
Iron	133		120	49.1	ug/L	2		6020A	Total/NA
Barium	5.7		4.0	1.5	ug/L	2		6020A	Dissolved
Copper	1.8	J	4.0	1.6	ug/L	2		6020A	Dissolved
Sodium	3890		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	4340		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1360		200	74.8	ug/L	2		6020A	Dissolved
Calcium	12500		200	69.5	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: OB-2-081716 (Continued) — Lab Sample ID: 460-118817-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	36.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	36.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-32-081716 — Lab Sample ID: 460-118817-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyclohexane	0.39	J	1.0	0.26	ug/L	1		8260C	Total/NA
Chloride	5.74		2.40	0.60	mg/L	20		9056A	Total/NA
Arsenic	15.2		2.0	0.71	ug/L	2		6020A	Total/NA
Barium	56.4		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	9370		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	52.6		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3910		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	5460		200	68.4	ug/L	2		6020A	Total/NA
Potassium	2370		200	74.8	ug/L	2		6020A	Total/NA
Calcium	37500		200	69.5	ug/L	2		6020A	Total/NA
Iron	65800		120	49.1	ug/L	2		6020A	Total/NA
Barium	29.5		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	9300		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	3900		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	4840		200	68.4	ug/L	2		6020A	Dissolved
Potassium	2360		200	74.8	ug/L	2		6020A	Dissolved
Calcium	38800		200	69.5	ug/L	2		6020A	Dissolved
Iron	20800		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	159		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	159		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-11R-081716 — Lab Sample ID: 460-118817-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.2		1.0	0.090	ug/L	1		8260C	Total/NA
Chloroethane	24		1.0	0.37	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.43	J	1.0	0.26	ug/L	1		8260C	Total/NA
Cyclohexane	2.8		1.0	0.26	ug/L	1		8260C	Total/NA
Isopropylbenzene	0.83	J	1.0	0.32	ug/L	1		8260C	Total/NA
Methylcyclohexane	0.74	J	1.0	0.22	ug/L	1		8260C	Total/NA
Chloride	5.57		2.40	0.60	mg/L	20		9056A	Total/NA
Arsenic	23.8		2.0	0.71	ug/L	2		6020A	Total/NA
Barium	101		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	2.4	J	4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	12700		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	34.5	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	4000		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	8430		200	68.4	ug/L	2		6020A	Total/NA
Potassium	3040		200	74.8	ug/L	2		6020A	Total/NA
Calcium	61800		200	69.5	ug/L	2		6020A	Total/NA
Iron	81100		120	49.1	ug/L	2		6020A	Total/NA
Barium	41.1		4.0	1.5	ug/L	2		6020A	Dissolved
Cobalt	2.2	J	4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	12000		8.0	3.0	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: OB-11R-081716 (Continued) — Lab Sample ID: 460-118817-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	3900		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	8140		200	68.4	ug/L	2		6020A	Dissolved
Potassium	3050		200	74.8	ug/L	2		6020A	Dissolved
Calcium	61900		200	69.5	ug/L	2		6020A	Dissolved
Iron	18900		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	251		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	251		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-31-081716 — Lab Sample ID: 460-118817-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	1.0	0.090	ug/L	1		8260C	Total/NA
Chloroethane	4.9		1.0	0.37	ug/L	1		8260C	Total/NA
Cyclohexane	0.41	J	1.0	0.26	ug/L	1		8260C	Total/NA
Pentachlorophenol	0.10	J	0.20	0.077	ug/L	1		8270D SIM	Total/NA
Chloride	5.53		2.40	0.60	mg/L	20		9056A	Total/NA
Arsenic	12.8		2.0	0.71	ug/L	2		6020A	Total/NA
Barium	42.3		4.0	1.5	ug/L	2		6020A	Total/NA
Copper	1.9	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	6150		8.0	3.0	ug/L	2		6020A	Total/NA
Lead	0.66	J	1.2	0.44	ug/L	2		6020A	Total/NA
Aluminum	154		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3250		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	4190		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1330		200	74.8	ug/L	2		6020A	Total/NA
Calcium	23800		200	69.5	ug/L	2		6020A	Total/NA
Iron	43300		120	49.1	ug/L	2		6020A	Total/NA
Barium	27.4		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	6120		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	3090		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	3670		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1330		200	74.8	ug/L	2		6020A	Dissolved
Calcium	24600		200	69.5	ug/L	2		6020A	Dissolved
Iron	11500		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	111		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	111		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SC-2-081716 — Lab Sample ID: 460-118817-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	9.2		5.0	1.1	ug/L	1		8260C	Total/NA
Methylene Chloride	0.22	J	1.0	0.21	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.15	J	1.0	0.12	ug/L	1		8260C	Total/NA
Pentachlorophenol	0.11	J	0.21	0.080	ug/L	1		8270D SIM	Total/NA
Chloride	5.86		2.40	0.60	mg/L	20		9056A	Total/NA
Sulfate	35.0		12.0	2.10	mg/L	20		9056A	Total/NA
Barium	37.2		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	1.7	J	4.0	1.5	ug/L	2		6020A	Total/NA
Copper	19.8		4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	44.5		8.0	3.0	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SC-2-081716 (Continued) — Lab Sample ID: 460-118817-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	2.3	J	4.0	1.6	ug/L	2		6020A	Total/NA
Lead	2.0		1.2	0.44	ug/L	2		6020A	Total/NA
Antimony	1.3	J	2.0	0.76	ug/L	2		6020A	Total/NA
Zinc	39.7		16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	47.8		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	8480		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	17700		200	68.4	ug/L	2		6020A	Total/NA
Potassium	3560		200	74.8	ug/L	2		6020A	Total/NA
Calcium	64900		200	69.5	ug/L	2		6020A	Total/NA
Iron	331		120	49.1	ug/L	2		6020A	Total/NA
Barium	37.5		4.0	1.5	ug/L	2		6020A	Dissolved
Copper	9.2		4.0	1.6	ug/L	2		6020A	Dissolved
Manganese	8.8		8.0	3.0	ug/L	2		6020A	Dissolved
Nickel	1.7	J	4.0	1.6	ug/L	2		6020A	Dissolved
Antimony	0.96	J	2.0	0.76	ug/L	2		6020A	Dissolved
Zinc	36.5		16.0	6.5	ug/L	2		6020A	Dissolved
Sodium	8420		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	17300		200	68.4	ug/L	2		6020A	Dissolved
Potassium	3670		200	74.8	ug/L	2		6020A	Dissolved
Calcium	70600		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	229		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	229		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-27-081716 — Lab Sample ID: 460-118817-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.3		1.0	0.090	ug/L	1		8260C	Total/NA
Chloroethane	61		1.0	0.37	ug/L	1		8260C	Total/NA
Cyclohexane	1.7		1.0	0.26	ug/L	1		8260C	Total/NA
Isopropylbenzene	2.9		1.0	0.32	ug/L	1		8260C	Total/NA
Methylcyclohexane	1.3		1.0	0.22	ug/L	1		8260C	Total/NA
Naphthalene	3.9	J	10	0.83	ug/L	1		8270D	Total/NA
Chloride	5.41		2.40	0.60	mg/L	20		9056A	Total/NA
Arsenic	22.5		2.0	0.71	ug/L	2		6020A	Total/NA
Barium	63.7		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	4.0		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	7410		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	2.1	J	4.0	1.6	ug/L	2		6020A	Total/NA
Lead	1.1	J	1.2	0.44	ug/L	2		6020A	Total/NA
Aluminum	53.3		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3140		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	4730		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1490		200	74.8	ug/L	2		6020A	Total/NA
Calcium	33200		200	69.5	ug/L	2		6020A	Total/NA
Iron	52100		120	49.1	ug/L	2		6020A	Total/NA
Barium	38.6		4.0	1.5	ug/L	2		6020A	Dissolved
Cobalt	3.7	J	4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	7340		8.0	3.0	ug/L	2		6020A	Dissolved
Nickel	1.6	J	4.0	1.6	ug/L	2		6020A	Dissolved
Sodium	3120		200	87.6	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: OB-27-081716 (Continued)

Lab Sample ID: 460-118817-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	4220		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1540		200	74.8	ug/L	2		6020A	Dissolved
Calcium	34700		200	69.5	ug/L	2		6020A	Dissolved
Iron	14300		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	125		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	125		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-19-081716

Lab Sample ID: 460-118817-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.23	J	1.0	0.090	ug/L	1		8260C	Total/NA
Chloroethane	1.5		1.0	0.37	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	1.2	J	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.4	J	2.1	0.75	ug/L	1		8270D	Total/NA
Chloride	5.79		2.40	0.60	mg/L	20		9056A	Total/NA
Sulfate	1.10		0.60	0.11	mg/L	1		9056A	Total/NA
Arsenic	0.90	J	2.0	0.71	ug/L	2		6020A	Total/NA
Barium	99.8		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	329		8.0	3.0	ug/L	2		6020A	Total/NA
Lead	0.47	J	1.2	0.44	ug/L	2		6020A	Total/NA
Vanadium	2.6	J	4.0	1.4	ug/L	2		6020A	Total/NA
Zinc	7.1	J	16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	42.6		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3670		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	3190		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1010		200	74.8	ug/L	2		6020A	Total/NA
Calcium	15700		200	69.5	ug/L	2		6020A	Total/NA
Iron	21200		120	49.1	ug/L	2		6020A	Total/NA
Barium	89.3		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	297		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	3630		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	2840		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1030		200	74.8	ug/L	2		6020A	Dissolved
Calcium	16300		200	69.5	ug/L	2		6020A	Dissolved
Iron	946		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	56.9		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	56.9		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-4-081716

Lab Sample ID: 460-118817-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.10	J	0.21	0.081	ug/L	1		8270D SIM	Total/NA
Chloride	170		12.0	3.00	mg/L	100		9056A	Total/NA
Sulfate	17.7		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	52.2		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	2.1	J	4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	1400		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	27.9	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	92700		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	14800		200	68.4	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: OB-4-081716 (Continued)

Lab Sample ID: 460-118817-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	2470		200	74.8	ug/L	2		6020A	Total/NA
Calcium	43200		200	69.5	ug/L	2		6020A	Total/NA
Iron	5850		120	49.1	ug/L	2		6020A	Total/NA
Barium	48.7		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	1470		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	87800		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	14000		200	68.4	ug/L	2		6020A	Dissolved
Potassium	2470		200	74.8	ug/L	2		6020A	Dissolved
Calcium	45500		200	69.5	ug/L	2		6020A	Dissolved
Iron	528		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	109		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	109		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: TB-02-081716

Lab Sample ID: 460-118817-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	2.9		1.0	0.21	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: OB-30C-081716

Date Collected: 08/17/16 10:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-1

Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 13:56	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 13:56	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 13:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*08/23/16 13:56*	*1*
4-Bromofluorobenzene	*93*		*70 - 130*		*08/23/16 13:56*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 01:00	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 01:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 01:00	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 01:00	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 01:00	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 01:00	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 01:00	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 01:00	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 01:00	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 01:00	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 01:00	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 01:00	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 01:00	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 01:00	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 01:00	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 01:00	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 01:00	1
Benzene	0.090	U	1.0	0.090	ug/L			08/23/16 01:00	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 01:00	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 01:00	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 01:00	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 01:00	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 01:00	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 01:00	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 01:00	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/23/16 01:00	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 01:00	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 01:00	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 01:00	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 01:00	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/23/16 01:00	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 01:00	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 01:00	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 01:00	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 01:00	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 01:00	1
Methyl tert-butyl ether	**0.21**	**J**	1.0	0.13	ug/L			08/23/16 01:00	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 01:00	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 01:00	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 01:00	1

Client Sample ID: OB-30C-081716
Date Collected: 08/17/16 10:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 01:00	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 01:00	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 01:00	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 01:00	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 01:00	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 01:00	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 01:00	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 01:00	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 01:00*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*08/23/16 01:00*	*1*
4-Bromofluorobenzene	*98*		*70 - 130*		*08/23/16 01:00*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*08/23/16 01:00*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*08/23/16 01:00*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/22/16 12:47	08/28/16 16:56	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/22/16 12:47	08/28/16 16:56	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/22/16 12:47	08/28/16 16:56	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/28/16 16:56	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/22/16 12:47	08/28/16 16:56	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/28/16 16:56	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/22/16 12:47	08/28/16 16:56	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/22/16 12:47	08/28/16 16:56	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/22/16 12:47	08/26/16 17:35	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/26/16 17:35	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/22/16 12:47	08/26/16 17:35	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/22/16 12:47	08/26/16 17:35	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/22/16 12:47	08/26/16 17:35	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/22/16 12:47	08/26/16 17:35	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/26/16 17:35	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/22/16 12:47	08/26/16 17:35	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/22/16 12:47	08/26/16 17:35	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/22/16 12:47	08/26/16 17:35	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/22/16 12:47	08/26/16 17:35	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/22/16 12:47	08/26/16 17:35	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/22/16 12:47	08/26/16 17:35	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/22/16 12:47	08/26/16 17:35	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/22/16 12:47	08/26/16 17:35	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/22/16 12:47	08/26/16 17:35	1
Isophorone	0.70	U	10	0.70	ug/L		08/22/16 12:47	08/26/16 17:35	1
Naphthalene	0.83	U	10	0.83	ug/L		08/22/16 12:47	08/26/16 17:35	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/22/16 12:47	08/26/16 17:35	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-30C-081716
Date Collected: 08/17/16 10:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/22/16 12:47	08/26/16 17:35	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/26/16 17:35	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/26/16 17:35	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/26/16 17:35	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/26/16 17:35	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/26/16 17:35	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/26/16 17:35	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/22/16 12:47	08/26/16 17:35	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/26/16 17:35	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/26/16 17:35	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/26/16 17:35	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/22/16 12:47	08/26/16 17:35	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/26/16 17:35	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/26/16 17:35	1
Fluorene	0.83	U	10	0.83	ug/L		08/22/16 12:47	08/26/16 17:35	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/22/16 12:47	08/26/16 17:35	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/26/16 17:35	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/26/16 17:35	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/26/16 17:35	1
Anthracene	0.59	U	10	0.59	ug/L		08/22/16 12:47	08/26/16 17:35	1
Carbazole	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/26/16 17:35	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/26/16 17:35	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/22/16 12:47	08/26/16 17:35	1
Pyrene	0.86	U	10	0.86	ug/L		08/22/16 12:47	08/26/16 17:35	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/22/16 12:47	08/26/16 17:35	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/22/16 12:47	08/26/16 17:35	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/22/16 12:47	08/26/16 17:35	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/26/16 17:35	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/22/16 12:47	08/26/16 17:35	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/22/16 12:47	08/26/16 17:35	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/26/16 17:35	1
Acetophenone	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/26/16 17:35	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/22/16 12:47	08/26/16 17:35	1
Caprolactam	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/26/16 17:35	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/22/16 12:47	08/26/16 17:35	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/22/16 12:47	08/26/16 17:35	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/22/16 12:47	08/26/16 17:35	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/26/16 17:35	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/26/16 17:35	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/26/16 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*89*		*30 - 130*	*08/22/16 12:47*	*08/26/16 17:35*	*1*
Phenol-d5 (Surr)	*25*		*15 - 110*	*08/22/16 12:47*	*08/26/16 17:35*	*1*
Terphenyl-d14 (Surr)	*99*		*30 - 130*	*08/22/16 12:47*	*08/26/16 17:35*	*1*
2,4,6-Tribromophenol (Surr)	*86*		*15 - 110*	*08/22/16 12:47*	*08/26/16 17:35*	*1*
2-Fluorophenol (Surr)	*51*		*15 - 110*	*08/22/16 12:47*	*08/26/16 17:35*	*1*
2-Fluorobiphenyl	*105*		*30 - 130*	*08/22/16 12:47*	*08/26/16 17:35*	*1*

Client Sample ID: OB-30C-081716
Date Collected: 08/17/16 10:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-1
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 10:49	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 10:49	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 10:49	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 10:49	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 10:49	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 10:49	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 10:49	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 10:49	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 10:49	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 10:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*54*		*30 - 150*	*08/23/16 19:58*	*08/24/16 10:49*	*1*
Tetrachloro-m-xylene	*58*		*30 - 150*	*08/23/16 19:58*	*08/24/16 10:49*	*1*
DCB Decachlorobiphenyl	*97*		*30 - 150*	*08/23/16 19:58*	*08/24/16 10:49*	*1*
DCB Decachlorobiphenyl	*100*		*30 - 150*	*08/23/16 19:58*	*08/24/16 10:49*	*1*

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**34.9**	**D**	1.20	0.30	mg/L			08/21/16 06:42	10
Sulfate	**26.5**	**D**	6.00	1.05	mg/L			08/21/16 06:42	10

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:27	2
Arsenic	**0.82**	**J**	2.0	0.71	ug/L		08/26/16 20:30	08/27/16 19:27	2
Barium	**17.3**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:27	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 19:27	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 19:27	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:27	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:27	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:27	2
Manganese	**103**		8.0	3.0	ug/L		08/26/16 20:30	08/27/16 19:27	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:27	2
Lead	**0.52**	**J**	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 19:27	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 19:27	2
Selenium	**1.8**	**J**	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 19:27	2
Vanadium	**5.1**		4.0	1.4	ug/L		08/26/16 20:30	08/27/16 19:27	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 19:27	2
Aluminum	**238**		40.0	13.5	ug/L		08/26/16 20:30	08/27/16 19:27	2
Sodium	**9550**		200	87.6	ug/L		08/26/16 20:30	08/27/16 19:27	2
Magnesium	**19300**		200	68.4	ug/L		08/26/16 20:30	08/27/16 19:27	2
Potassium	**5290**		200	74.8	ug/L		08/26/16 20:30	08/27/16 19:27	2
Calcium	**40100**		200	69.5	ug/L		08/26/16 20:30	08/27/16 19:27	2
Iron	**397**		120	49.1	ug/L		08/26/16 20:30	08/27/16 19:27	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 19:27	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 10:28	08/26/16 13:39	2

Client Sample ID: OB-30C-081716

Lab Sample ID: 460-118817-1

Date Collected: 08/17/16 10:30

Matrix: Water

Date Received: 08/18/16 11:20

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.88**	**J**	2.0	0.71	ug/L		08/26/16 10:28	08/26/16 13:39	2
Barium	**14.1**		4.0	1.5	ug/L		08/26/16 10:28	08/26/16 21:22	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 10:28	08/26/16 21:22	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 10:28	08/26/16 13:39	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 13:39	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 13:39	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 13:39	2
Manganese	**56.2**		8.0	3.0	ug/L		08/26/16 10:28	08/26/16 13:39	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 13:39	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 10:28	08/26/16 13:39	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 10:28	08/26/16 13:39	2
Selenium	**2.6**	**J**	10.0	0.79	ug/L		08/26/16 10:28	08/26/16 13:39	2
Vanadium	**4.3**		4.0	1.4	ug/L		08/26/16 10:28	08/26/16 13:39	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 10:28	08/26/16 13:39	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 10:28	08/26/16 13:39	2
Sodium	**9190**		200	87.6	ug/L		08/26/16 10:28	08/26/16 13:39	2
Magnesium	**18200**		200	68.4	ug/L		08/26/16 10:28	08/26/16 13:39	2
Potassium	**5260**		200	74.8	ug/L		08/26/16 10:28	08/26/16 21:22	2
Calcium	**39200**		200	69.5	ug/L		08/26/16 10:28	08/26/16 13:39	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 10:28	08/26/16 13:39	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 10:28	08/26/16 13:39	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 12:05	08/23/16 14:43	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 14:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/30/16 15:47	08/30/16 18:56	1
Bicarbonate Alkalinity as CaCO3	**125**		5.0	5.0	mg/L			08/26/16 10:00	1
Alkalinity	**125**		5.0	5.0	mg/L			08/26/16 10:00	1

Client Sample ID: OB-33-081716

Lab Sample ID: 460-118817-2

Date Collected: 08/17/16 11:05

Matrix: Water

Date Received: 08/18/16 11:20

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 14:21	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 14:21	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 14:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/23/16 14:21*	*1*
4-Bromofluorobenzene	*89*		*70 - 130*		*08/23/16 14:21*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-33-081716
Date Collected: 08/17/16 11:05
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 01:26	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 01:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 01:26	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 01:26	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 01:26	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 01:26	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 01:26	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 01:26	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 01:26	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 01:26	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 01:26	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 01:26	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 01:26	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 01:26	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 01:26	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 01:26	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 01:26	1
Benzene	0.090	U	1.0	0.090	ug/L			08/23/16 01:26	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 01:26	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 01:26	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 01:26	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 01:26	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 01:26	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 01:26	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 01:26	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/23/16 01:26	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 01:26	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 01:26	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 01:26	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 01:26	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/23/16 01:26	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 01:26	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 01:26	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 01:26	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 01:26	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 01:26	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 01:26	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 01:26	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 01:26	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 01:26	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 01:26	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 01:26	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 01:26	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 01:26	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 01:26	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 01:26	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 01:26	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 01:26	1

Client Sample ID: OB-33-081716
Date Collected: 08/17/16 11:05
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-2
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/23/16 01:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		08/23/16 01:26	1
4-Bromofluorobenzene	98		70 - 130		08/23/16 01:26	1
Dibromofluoromethane (Surr)	95		70 - 130		08/23/16 01:26	1
Toluene-d8 (Surr)	100		70 - 130		08/23/16 01:26	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/22/16 12:47	08/28/16 17:25	1
Benzo[a]pyrene	0.028	U	0.053	0.028	ug/L		08/22/16 12:47	08/28/16 17:25	1
Benzo[b]fluoranthene	0.013	U	0.053	0.013	ug/L		08/22/16 12:47	08/28/16 17:25	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		08/22/16 12:47	08/28/16 17:25	1
Dibenz(a,h)anthracene	0.023	U	0.053	0.023	ug/L		08/22/16 12:47	08/28/16 17:25	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		08/22/16 12:47	08/28/16 17:25	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/22/16 12:47	08/28/16 17:25	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/22/16 12:47	08/28/16 17:25	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.44	U	11	0.44	ug/L		08/22/16 12:47	08/26/16 17:55	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		08/22/16 12:47	08/26/16 17:55	1
2-Methylphenol	1.4	U *	11	1.4	ug/L		08/22/16 12:47	08/26/16 17:55	1
4-Methylphenol	0.93	U	11	0.93	ug/L		08/22/16 12:47	08/26/16 17:55	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/22/16 12:47	08/26/16 17:55	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		08/22/16 12:47	08/26/16 17:55	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/22/16 12:47	08/26/16 17:55	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/22/16 12:47	08/26/16 17:55	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/22/16 12:47	08/26/16 17:55	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/22/16 12:47	08/26/16 17:55	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/22/16 12:47	08/26/16 17:55	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/22/16 12:47	08/26/16 17:55	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/22/16 12:47	08/26/16 17:55	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/22/16 12:47	08/26/16 17:55	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		08/22/16 12:47	08/26/16 17:55	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/22/16 12:47	08/26/16 17:55	1
Isophorone	0.71	U	11	0.71	ug/L		08/22/16 12:47	08/26/16 17:55	1
Naphthalene	0.85	U	11	0.85	ug/L		08/22/16 12:47	08/26/16 17:55	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		08/22/16 12:47	08/26/16 17:55	1
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/22/16 12:47	08/26/16 17:55	1
2-Methylnaphthalene	0.94	U	11	0.94	ug/L		08/22/16 12:47	08/26/16 17:55	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/22/16 12:47	08/26/16 17:55	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/22/16 12:47	08/26/16 17:55	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/22/16 12:47	08/26/16 17:55	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/22/16 12:47	08/26/16 17:55	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/22/16 12:47	08/26/16 17:55	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		08/22/16 12:47	08/26/16 17:55	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/22/16 12:47	08/26/16 17:55	1
Acenaphthene	0.94	U	11	0.94	ug/L		08/22/16 12:47	08/26/16 17:55	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/22/16 12:47	08/26/16 17:55	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-33-081716
Date Collected: 08/17/16 11:05
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/22/16 12:47	08/26/16 17:55	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/22/16 12:47	08/26/16 17:55	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/22/16 12:47	08/26/16 17:55	1
Fluorene	0.85	U	11	0.85	ug/L		08/22/16 12:47	08/26/16 17:55	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/22/16 12:47	08/26/16 17:55	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		08/22/16 12:47	08/26/16 17:55	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/22/16 12:47	08/26/16 17:55	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/22/16 12:47	08/26/16 17:55	1
Anthracene	0.61	U	11	0.61	ug/L		08/22/16 12:47	08/26/16 17:55	1
Carbazole	0.90	U	11	0.90	ug/L		08/22/16 12:47	08/26/16 17:55	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/22/16 12:47	08/26/16 17:55	1
Fluoranthene	0.77	U	11	0.77	ug/L		08/22/16 12:47	08/26/16 17:55	1
Pyrene	0.88	U	11	0.88	ug/L		08/22/16 12:47	08/26/16 17:55	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/22/16 12:47	08/26/16 17:55	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/22/16 12:47	08/26/16 17:55	1
Bis(2-ethylhexyl) phthalate	**0.84**	**J**	2.1	0.77	ug/L		08/22/16 12:47	08/26/16 17:55	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/22/16 12:47	08/26/16 17:55	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/22/16 12:47	08/26/16 17:55	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		08/22/16 12:47	08/26/16 17:55	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/22/16 12:47	08/26/16 17:55	1
Acetophenone	1.1	U	11	1.1	ug/L		08/22/16 12:47	08/26/16 17:55	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/22/16 12:47	08/26/16 17:55	1
Caprolactam	1.1	U	11	1.1	ug/L		08/22/16 12:47	08/26/16 17:55	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/22/16 12:47	08/26/16 17:55	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/22/16 12:47	08/26/16 17:55	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/22/16 12:47	08/26/16 17:55	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/22/16 12:47	08/26/16 17:55	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/22/16 12:47	08/26/16 17:55	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/22/16 12:47	08/26/16 17:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*88*		*30 - 130*	*08/22/16 12:47*	*08/26/16 17:55*	*1*
Phenol-d5 (Surr)	*27*		*15 - 110*	*08/22/16 12:47*	*08/26/16 17:55*	*1*
Terphenyl-d14 (Surr)	*100*		*30 - 130*	*08/22/16 12:47*	*08/26/16 17:55*	*1*
2,4,6-Tribromophenol (Surr)	*84*		*15 - 110*	*08/22/16 12:47*	*08/26/16 17:55*	*1*
2-Fluorophenol (Surr)	*54*		*15 - 110*	*08/22/16 12:47*	*08/26/16 17:55*	*1*
2-Fluorobiphenyl	*89*		*30 - 130*	*08/22/16 12:47*	*08/26/16 17:55*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:06	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:06	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:06	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:06	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:06	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:06	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 11:06	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 11:06	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 11:06	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 11:06	1

Client Sample ID: OB-33-081716

Date Collected: 08/17/16 11:05
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-2

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*57*		*30 - 150*	*08/23/16 19:58*	*08/24/16 11:06*	*1*
Tetrachloro-m-xylene	*55*		*30 - 150*	*08/23/16 19:58*	*08/24/16 11:06*	*1*
DCB Decachlorobiphenyl	*114*		*30 - 150*	*08/23/16 19:58*	*08/24/16 11:06*	*1*
DCB Decachlorobiphenyl	*112*		*30 - 150*	*08/23/16 19:58*	*08/24/16 11:06*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.64**		0.12	0.030	mg/L			08/21/16 00:01	1
Sulfate	**12.6**		0.60	0.11	mg/L			08/21/16 00:01	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:29	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 20:30	08/27/16 19:29	2
Barium	**24.6**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:29	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 19:29	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 19:29	2
Cobalt	**2.4**	**J**	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:29	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:29	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:29	2
Manganese	**40.7**		8.0	3.0	ug/L		08/26/16 20:30	08/27/16 19:29	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:29	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 19:29	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 19:29	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 19:29	2
Vanadium	**2.0**	**J**	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 19:29	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 19:29	2
Aluminum	**317**		40.0	13.5	ug/L		08/26/16 20:30	08/27/16 19:29	2
Sodium	**5690**		200	87.6	ug/L		08/26/16 20:30	08/27/16 19:29	2
Magnesium	**5880**		200	68.4	ug/L		08/26/16 20:30	08/27/16 19:29	2
Potassium	**1030**		200	74.8	ug/L		08/26/16 20:30	08/27/16 19:29	2
Calcium	**12600**		200	69.5	ug/L		08/26/16 20:30	08/27/16 19:29	2
Iron	**446**		120	49.1	ug/L		08/26/16 20:30	08/27/16 19:29	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 19:29	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 10:28	08/26/16 13:50	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 10:28	08/26/16 13:50	2
Barium	**17.3**		4.0	1.5	ug/L		08/26/16 10:28	08/26/16 21:34	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 10:28	08/26/16 21:34	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 10:28	08/26/16 13:50	2
Cobalt	**1.8**	**J**	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 13:50	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 13:50	2
Copper	**2.0**	**J**	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 13:50	2
Manganese	**18.3**		8.0	3.0	ug/L		08/26/16 10:28	08/26/16 13:50	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 13:50	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 10:28	08/26/16 13:50	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 10:28	08/26/16 13:50	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 10:28	08/26/16 13:50	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 10:28	08/26/16 13:50	2

Client Sample ID: OB-33-081716

Lab Sample ID: 460-118817-2

Date Collected: 08/17/16 11:05

Matrix: Water

Date Received: 08/18/16 11:20

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 10:28	08/26/16 13:50	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 10:28	08/26/16 13:50	2
Sodium	**5780**		200	87.6	ug/L		08/26/16 10:28	08/26/16 13:50	2
Magnesium	**5030**		200	68.4	ug/L		08/26/16 10:28	08/26/16 13:50	2
Potassium	**960**		200	74.8	ug/L		08/26/16 10:28	08/26/16 21:34	2
Calcium	**13000**		200	69.5	ug/L		08/26/16 10:28	08/26/16 13:50	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 10:28	08/26/16 13:50	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 10:28	08/26/16 13:50	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 12:05	08/23/16 14:49	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 14:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/30/16 15:47	08/30/16 18:57	1
Bicarbonate Alkalinity as CaCO3	**44.2**		5.0	5.0	mg/L			08/26/16 10:00	1
Alkalinity	**44.2**		5.0	5.0	mg/L			08/26/16 10:00	1

Client Sample ID: OB-12-081716

Lab Sample ID: 460-118817-3

Date Collected: 08/17/16 11:10

Matrix: Water

Date Received: 08/18/16 11:20

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 14:46	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 14:46	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*08/23/16 14:46*	*1*
4-Bromofluorobenzene	*90*		*70 - 130*		*08/23/16 14:46*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 01:52	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 01:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 01:52	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 01:52	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 01:52	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 01:52	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 01:52	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 01:52	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 01:52	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 01:52	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 01:52	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 01:52	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-12-081716
Date Collected: 08/17/16 11:10
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 01:52	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 01:52	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 01:52	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 01:52	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 01:52	1
Benzene	0.090	U	1.0	0.090	ug/L			08/23/16 01:52	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 01:52	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 01:52	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 01:52	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 01:52	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 01:52	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 01:52	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 01:52	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/23/16 01:52	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 01:52	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 01:52	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 01:52	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 01:52	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/23/16 01:52	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 01:52	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 01:52	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 01:52	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 01:52	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 01:52	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 01:52	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 01:52	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 01:52	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 01:52	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 01:52	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 01:52	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 01:52	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 01:52	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 01:52	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 01:52	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 01:52	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 01:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 01:52*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*08/23/16 01:52*	*1*
4-Bromofluorobenzene	*98*		*70 - 130*		*08/23/16 01:52*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*08/23/16 01:52*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*08/23/16 01:52*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/22/16 12:47	08/28/16 17:54	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/22/16 12:47	08/28/16 17:54	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-12-081716
Date Collected: 08/17/16 11:10
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-3
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/22/16 12:47	08/28/16 17:54	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/28/16 17:54	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/22/16 12:47	08/28/16 17:54	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/28/16 17:54	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/22/16 12:47	08/28/16 17:54	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/22/16 12:47	08/28/16 17:54	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/22/16 12:47	08/26/16 18:15	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/26/16 18:15	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/22/16 12:47	08/26/16 18:15	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/22/16 12:47	08/26/16 18:15	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/22/16 12:47	08/26/16 18:15	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/22/16 12:47	08/26/16 18:15	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/26/16 18:15	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/22/16 12:47	08/26/16 18:15	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/22/16 12:47	08/26/16 18:15	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/22/16 12:47	08/26/16 18:15	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/22/16 12:47	08/26/16 18:15	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/22/16 12:47	08/26/16 18:15	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/22/16 12:47	08/26/16 18:15	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/22/16 12:47	08/26/16 18:15	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/22/16 12:47	08/26/16 18:15	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/22/16 12:47	08/26/16 18:15	1
Isophorone	0.70	U	10	0.70	ug/L		08/22/16 12:47	08/26/16 18:15	1
Naphthalene	0.83	U	10	0.83	ug/L		08/22/16 12:47	08/26/16 18:15	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/22/16 12:47	08/26/16 18:15	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/22/16 12:47	08/26/16 18:15	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/26/16 18:15	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/26/16 18:15	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/26/16 18:15	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/26/16 18:15	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/26/16 18:15	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/26/16 18:15	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/22/16 12:47	08/26/16 18:15	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/26/16 18:15	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/26/16 18:15	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/26/16 18:15	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/22/16 12:47	08/26/16 18:15	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/26/16 18:15	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/26/16 18:15	1
Fluorene	0.83	U	10	0.83	ug/L		08/22/16 12:47	08/26/16 18:15	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/22/16 12:47	08/26/16 18:15	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/26/16 18:15	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/26/16 18:15	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/26/16 18:15	1
Anthracene	0.59	U	10	0.59	ug/L		08/22/16 12:47	08/26/16 18:15	1
Carbazole	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/26/16 18:15	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/26/16 18:15	1

Client Sample ID: OB-12-081716
Date Collected: 08/17/16 11:10
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.75	U	10	0.75	ug/L		08/22/16 12:47	08/26/16 18:15	1
Pyrene	0.86	U	10	0.86	ug/L		08/22/16 12:47	08/26/16 18:15	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/22/16 12:47	08/26/16 18:15	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/22/16 12:47	08/26/16 18:15	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/22/16 12:47	08/26/16 18:15	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/26/16 18:15	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/22/16 12:47	08/26/16 18:15	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/22/16 12:47	08/26/16 18:15	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/26/16 18:15	1
Acetophenone	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/26/16 18:15	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/22/16 12:47	08/26/16 18:15	1
Caprolactam	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/26/16 18:15	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/22/16 12:47	08/26/16 18:15	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/22/16 12:47	08/26/16 18:15	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/22/16 12:47	08/26/16 18:15	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/26/16 18:15	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/26/16 18:15	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/26/16 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*88*		*30 - 130*	*08/22/16 12:47*	*08/26/16 18:15*	*1*
Phenol-d5 (Surr)	*27*		*15 - 110*	*08/22/16 12:47*	*08/26/16 18:15*	*1*
Terphenyl-d14 (Surr)	*94*		*30 - 130*	*08/22/16 12:47*	*08/26/16 18:15*	*1*
2,4,6-Tribromophenol (Surr)	*85*		*15 - 110*	*08/22/16 12:47*	*08/26/16 18:15*	*1*
2-Fluorophenol (Surr)	*47*		*15 - 110*	*08/22/16 12:47*	*08/26/16 18:15*	*1*
2-Fluorobiphenyl	*94*		*30 - 130*	*08/22/16 12:47*	*08/26/16 18:15*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:24	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:24	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:24	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:24	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:24	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:24	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 11:24	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 11:24	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 11:24	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 11:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*50*		*30 - 150*	*08/23/16 19:58*	*08/24/16 11:24*	*1*
Tetrachloro-m-xylene	*51*		*30 - 150*	*08/23/16 19:58*	*08/24/16 11:24*	*1*
DCB Decachlorobiphenyl	*113*		*30 - 150*	*08/23/16 19:58*	*08/24/16 11:24*	*1*
DCB Decachlorobiphenyl	*108*		*30 - 150*	*08/23/16 19:58*	*08/24/16 11:24*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.04**		0.12	0.030	mg/L			08/21/16 00:19	1
Sulfate	**10.4**		0.60	0.11	mg/L			08/21/16 00:19	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-12-081716
Date Collected: 08/17/16 11:10
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-3
Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:32	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 20:30	08/27/16 19:32	2
Barium	**2.3**	**J**	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:32	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 19:32	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 19:32	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:32	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:32	2
Copper	**4.2**		4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:32	2
Manganese	3.0	U	8.0	3.0	ug/L		08/26/16 20:30	08/27/16 19:32	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:32	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 19:32	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 19:32	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 19:32	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 19:32	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 19:32	2
Aluminum	**33.9**	**J**	40.0	13.5	ug/L		08/26/16 20:30	08/27/16 19:32	2
Sodium	**2490**		200	87.6	ug/L		08/26/16 20:30	08/27/16 19:32	2
Magnesium	**2680**		200	68.4	ug/L		08/26/16 20:30	08/27/16 19:32	2
Potassium	**526**		200	74.8	ug/L		08/26/16 20:30	08/27/16 19:32	2
Calcium	**6410**		200	69.5	ug/L		08/26/16 20:30	08/27/16 19:32	2
Iron	**54.6**	**J**	120	49.1	ug/L		08/26/16 20:30	08/27/16 19:32	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 19:32	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 10:28	08/26/16 13:56	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 10:28	08/26/16 13:56	2
Barium	**2.0**	**J**	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 21:40	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 10:28	08/26/16 21:40	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 10:28	08/26/16 13:56	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 13:56	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 13:56	2
Copper	**3.1**	**J**	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 13:56	2
Manganese	3.0	U	8.0	3.0	ug/L		08/26/16 10:28	08/26/16 13:56	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 13:56	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 10:28	08/26/16 13:56	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 10:28	08/26/16 13:56	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 10:28	08/26/16 13:56	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 10:28	08/26/16 13:56	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 10:28	08/26/16 13:56	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 10:28	08/26/16 13:56	2
Sodium	**2190**		200	87.6	ug/L		08/26/16 10:28	08/26/16 13:56	2
Magnesium	**2360**		200	68.4	ug/L		08/26/16 10:28	08/26/16 13:56	2
Potassium	**537**		200	74.8	ug/L		08/26/16 10:28	08/26/16 21:40	2
Calcium	**6560**		200	69.5	ug/L		08/26/16 10:28	08/26/16 13:56	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 10:28	08/26/16 13:56	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 10:28	08/26/16 13:56	2

Client Sample ID: OB-12-081716

Lab Sample ID: 460-118817-3

Date Collected: 08/17/16 11:10

Matrix: Water

Date Received: 08/18/16 11:20

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 12:05	08/23/16 14:28	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 14:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/30/16 15:47	08/30/16 18:58	1
Bicarbonate Alkalinity as CaCO3	**20.1**		5.0	5.0	mg/L			08/26/16 10:00	1
Alkalinity	**20.1**		5.0	5.0	mg/L			08/26/16 10:00	1

Client Sample ID: OB-30B-081716

Lab Sample ID: 460-118817-4

Date Collected: 08/17/16 11:45

Matrix: Water

Date Received: 08/18/16 11:20

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 15:11	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 15:11	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*08/23/16 15:11*	*1*
4-Bromofluorobenzene	*88*		*70 - 130*		*08/23/16 15:11*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 02:18	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 02:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 02:18	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 02:18	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 02:18	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 02:18	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 02:18	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 02:18	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 02:18	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 02:18	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 02:18	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 02:18	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 02:18	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 02:18	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 02:18	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 02:18	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 02:18	1
Benzene	0.090	U	1.0	0.090	ug/L			08/23/16 02:18	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 02:18	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 02:18	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 02:18	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 02:18	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 02:18	1

Client Sample ID: OB-30B-081716

Date Collected: 08/17/16 11:45
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 02:18	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 02:18	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/23/16 02:18	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 02:18	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 02:18	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 02:18	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 02:18	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/23/16 02:18	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 02:18	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 02:18	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 02:18	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 02:18	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 02:18	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 02:18	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 02:18	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 02:18	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 02:18	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 02:18	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 02:18	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 02:18	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 02:18	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 02:18	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 02:18	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 02:18	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 02:18	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 02:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*08/23/16 02:18*	*1*
4-Bromofluorobenzene	*97*		*70 - 130*		*08/23/16 02:18*	*1*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*08/23/16 02:18*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*08/23/16 02:18*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/22/16 12:47	08/28/16 18:23	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/22/16 12:47	08/28/16 18:23	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/22/16 12:47	08/28/16 18:23	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/28/16 18:23	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/22/16 12:47	08/28/16 18:23	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/28/16 18:23	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/22/16 12:47	08/28/16 18:23	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/22/16 12:47	08/28/16 18:23	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/22/16 12:47	08/29/16 11:09	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/29/16 11:09	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-30B-081716
Date Collected: 08/17/16 11:45
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/22/16 12:47	08/29/16 11:09	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/22/16 12:47	08/29/16 11:09	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/22/16 12:47	08/29/16 11:09	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/22/16 12:47	08/29/16 11:09	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 11:09	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/22/16 12:47	08/29/16 11:09	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/22/16 12:47	08/29/16 11:09	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/22/16 12:47	08/29/16 11:09	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/22/16 12:47	08/29/16 11:09	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/22/16 12:47	08/29/16 11:09	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/22/16 12:47	08/29/16 11:09	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/22/16 12:47	08/29/16 11:09	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/22/16 12:47	08/29/16 11:09	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/22/16 12:47	08/29/16 11:09	1
Isophorone	0.70	U	10	0.70	ug/L		08/22/16 12:47	08/29/16 11:09	1
Naphthalene	0.83	U	10	0.83	ug/L		08/22/16 12:47	08/29/16 11:09	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/22/16 12:47	08/29/16 11:09	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/22/16 12:47	08/29/16 11:09	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/29/16 11:09	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 11:09	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 11:09	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 11:09	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 11:09	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 11:09	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/22/16 12:47	08/29/16 11:09	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/29/16 11:09	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/29/16 11:09	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/29/16 11:09	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/22/16 12:47	08/29/16 11:09	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 11:09	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 11:09	1
Fluorene	0.83	U	10	0.83	ug/L		08/22/16 12:47	08/29/16 11:09	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/22/16 12:47	08/29/16 11:09	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/29/16 11:09	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 11:09	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 11:09	1
Anthracene	0.59	U	10	0.59	ug/L		08/22/16 12:47	08/29/16 11:09	1
Carbazole	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/29/16 11:09	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/29/16 11:09	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/22/16 12:47	08/29/16 11:09	1
Pyrene	0.86	U	10	0.86	ug/L		08/22/16 12:47	08/29/16 11:09	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/22/16 12:47	08/29/16 11:09	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/22/16 12:47	08/29/16 11:09	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/22/16 12:47	08/29/16 11:09	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 11:09	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/22/16 12:47	08/29/16 11:09	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/22/16 12:47	08/29/16 11:09	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 11:09	1
Acetophenone	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 11:09	1

Client Sample ID: OB-30B-081716

Date Collected: 08/17/16 11:45
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-4

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	0.90	U	10	0.90	ug/L		08/22/16 12:47	08/29/16 11:09	1
Caprolactam	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 11:09	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/22/16 12:47	08/29/16 11:09	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/22/16 12:47	08/29/16 11:09	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/22/16 12:47	08/29/16 11:09	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 11:09	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 11:09	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 11:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*92*		*30 - 130*	*08/22/16 12:47*	*08/29/16 11:09*	*1*
Phenol-d5 (Surr)	*25*		*15 - 110*	*08/22/16 12:47*	*08/29/16 11:09*	*1*
Terphenyl-d14 (Surr)	*97*		*30 - 130*	*08/22/16 12:47*	*08/29/16 11:09*	*1*
2,4,6-Tribromophenol (Surr)	*101*		*15 - 110*	*08/22/16 12:47*	*08/29/16 11:09*	*1*
2-Fluorophenol (Surr)	*42*		*15 - 110*	*08/22/16 12:47*	*08/29/16 11:09*	*1*
2-Fluorobiphenyl	*89*		*30 - 130*	*08/22/16 12:47*	*08/29/16 11:09*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:42	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:42	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:42	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:42	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:42	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 11:42	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 11:42	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 11:42	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 11:42	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 11:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*54*		*30 - 150*	*08/23/16 19:58*	*08/24/16 11:42*	*1*
Tetrachloro-m-xylene	*57*		*30 - 150*	*08/23/16 19:58*	*08/24/16 11:42*	*1*
DCB Decachlorobiphenyl	*109*		*30 - 150*	*08/23/16 19:58*	*08/24/16 11:42*	*1*
DCB Decachlorobiphenyl	*112*		*30 - 150*	*08/23/16 19:58*	*08/24/16 11:42*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**39.6**		2.40	0.60	mg/L			08/23/16 15:48	20
Sulfate	**32.7**		12.0	2.10	mg/L			08/23/16 15:48	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:34	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 20:30	08/27/16 19:34	2
Barium	**39.7**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:34	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 19:34	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 19:34	2
Cobalt	**2.0**	**J**	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:34	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:34	2
Copper	**2.4**	**J**	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:34	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-30B-081716
Date Collected: 08/17/16 11:45
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-4
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**1180**		8.0	3.0	ug/L		08/26/16 20:30	08/27/16 19:34	2
Nickel	**2.7**	**J**	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:34	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 19:34	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 19:34	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 19:34	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 19:34	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 19:34	2
Aluminum	**39.8**	**J**	40.0	13.5	ug/L		08/26/16 20:30	08/27/16 19:34	2
Sodium	**31600**		200	87.6	ug/L		08/26/16 20:30	08/27/16 19:34	2
Magnesium	**6540**		200	68.4	ug/L		08/26/16 20:30	08/27/16 19:34	2
Potassium	**3340**		200	74.8	ug/L		08/26/16 20:30	08/27/16 19:34	2
Calcium	**26900**		200	69.5	ug/L		08/26/16 20:30	08/27/16 19:34	2
Iron	**63.2**	**J**	120	49.1	ug/L		08/26/16 20:30	08/27/16 19:34	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 19:34	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:01	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 10:28	08/26/16 14:01	2
Barium	**39.6**		4.0	1.5	ug/L		08/26/16 10:28	08/26/16 21:51	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 10:28	08/26/16 21:51	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 10:28	08/26/16 14:01	2
Cobalt	**1.5**	**J**	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:01	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:01	2
Copper	**1.9**	**J**	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:01	2
Manganese	**1030**		8.0	3.0	ug/L		08/26/16 10:28	08/26/16 14:01	2
Nickel	**2.4**	**J**	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:01	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 10:28	08/26/16 14:01	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 10:28	08/26/16 14:01	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 10:28	08/26/16 14:01	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 10:28	08/26/16 14:01	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 10:28	08/26/16 14:01	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 10:28	08/26/16 14:01	2
Sodium	**30100**		200	87.6	ug/L		08/26/16 10:28	08/26/16 14:01	2
Magnesium	**5960**		200	68.4	ug/L		08/26/16 10:28	08/26/16 14:01	2
Potassium	**3310**		200	74.8	ug/L		08/26/16 10:28	08/26/16 21:51	2
Calcium	**27900**		200	69.5	ug/L		08/26/16 10:28	08/26/16 14:01	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 10:28	08/26/16 14:01	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 10:28	08/26/16 14:01	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 12:05	08/23/16 14:51	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 14:56	1

Client Sample ID: OB-30B-081716

Lab Sample ID: 460-118817-4

Date Collected: 08/17/16 11:45

Matrix: Water

Date Received: 08/18/16 11:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/30/16 15:49	08/30/16 18:59	1
Bicarbonate Alkalinity as CaCO3	**60.3**		5.0	5.0	mg/L			08/26/16 10:00	1
Alkalinity	**60.3**		5.0	5.0	mg/L			08/26/16 10:00	1

Client Sample ID: OB-15B-081716

Lab Sample ID: 460-118817-5

Date Collected: 08/17/16 12:30

Matrix: Water

Date Received: 08/18/16 11:20

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 02:08	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 02:08	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 02:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*08/24/16 02:08*	*1*
4-Bromofluorobenzene	*88*		*70 - 130*		*08/24/16 02:08*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 02:44	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 02:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 02:44	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 02:44	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 02:44	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 02:44	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 02:44	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 02:44	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 02:44	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 02:44	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 02:44	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 02:44	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 02:44	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 02:44	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 02:44	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 02:44	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 02:44	1
Benzene	0.090	U	1.0	0.090	ug/L			08/23/16 02:44	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 02:44	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 02:44	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 02:44	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 02:44	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 02:44	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 02:44	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 02:44	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/23/16 02:44	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 02:44	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 02:44	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 02:44	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 02:44	1

Client Sample ID: OB-15B-081716
Date Collected: 08/17/16 12:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/23/16 02:44	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 02:44	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 02:44	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 02:44	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 02:44	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 02:44	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 02:44	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 02:44	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 02:44	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 02:44	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 02:44	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 02:44	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 02:44	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 02:44	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 02:44	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 02:44	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 02:44	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 02:44	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 02:44*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*08/23/16 02:44*	*1*
4-Bromofluorobenzene	*96*		*70 - 130*		*08/23/16 02:44*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*08/23/16 02:44*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/23/16 02:44*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/22/16 12:47	08/28/16 18:52	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/22/16 12:47	08/28/16 18:52	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/22/16 12:47	08/28/16 18:52	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/28/16 18:52	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/22/16 12:47	08/28/16 18:52	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/28/16 18:52	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/22/16 12:47	08/28/16 18:52	1
Pentachlorophenol	0.081	U	0.21	0.081	ug/L		08/22/16 12:47	08/28/16 18:52	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/22/16 12:47	08/29/16 11:29	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/29/16 11:29	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/22/16 12:47	08/29/16 11:29	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/22/16 12:47	08/29/16 11:29	1
2-Nitrophenol	0.62	U	10	0.62	ug/L		08/22/16 12:47	08/29/16 11:29	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/22/16 12:47	08/29/16 11:29	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 11:29	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/22/16 12:47	08/29/16 11:29	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/22/16 12:47	08/29/16 11:29	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-15B-081716
Date Collected: 08/17/16 12:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/22/16 12:47	08/29/16 11:29	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/22/16 12:47	08/29/16 11:29	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/22/16 12:47	08/29/16 11:29	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/22/16 12:47	08/29/16 11:29	1
N-Nitrosodi-n-propylamine	0.87	U	1.0	0.87	ug/L		08/22/16 12:47	08/29/16 11:29	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/22/16 12:47	08/29/16 11:29	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/22/16 12:47	08/29/16 11:29	1
Isophorone	0.70	U	10	0.70	ug/L		08/22/16 12:47	08/29/16 11:29	1
Naphthalene	0.84	U	10	0.84	ug/L		08/22/16 12:47	08/29/16 11:29	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/22/16 12:47	08/29/16 11:29	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/22/16 12:47	08/29/16 11:29	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/29/16 11:29	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 11:29	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 11:29	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 11:29	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 11:29	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 11:29	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/22/16 12:47	08/29/16 11:29	1
3-Nitroaniline	0.86	U	10	0.86	ug/L		08/22/16 12:47	08/29/16 11:29	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/29/16 11:29	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/29/16 11:29	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/22/16 12:47	08/29/16 11:29	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 11:29	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 11:29	1
Fluorene	0.84	U	10	0.84	ug/L		08/22/16 12:47	08/29/16 11:29	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/22/16 12:47	08/29/16 11:29	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/29/16 11:29	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 11:29	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 11:29	1
Anthracene	0.60	U	10	0.60	ug/L		08/22/16 12:47	08/29/16 11:29	1
Carbazole	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/29/16 11:29	1
Di-n-butyl phthalate	0.86	U	10	0.86	ug/L		08/22/16 12:47	08/29/16 11:29	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/22/16 12:47	08/29/16 11:29	1
Pyrene	0.87	U	10	0.87	ug/L		08/22/16 12:47	08/29/16 11:29	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/22/16 12:47	08/29/16 11:29	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/22/16 12:47	08/29/16 11:29	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/22/16 12:47	08/29/16 11:29	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 11:29	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/22/16 12:47	08/29/16 11:29	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/22/16 12:47	08/29/16 11:29	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 11:29	1
Acetophenone	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 11:29	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/22/16 12:47	08/29/16 11:29	1
Caprolactam	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 11:29	1
Atrazine	0.81	U	2.1	0.81	ug/L		08/22/16 12:47	08/29/16 11:29	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/22/16 12:47	08/29/16 11:29	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/22/16 12:47	08/29/16 11:29	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 11:29	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 11:29	1

Client Sample ID: OB-15B-081716

Date Collected: 08/17/16 12:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-5

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 11:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*95*		*30 - 130*	*08/22/16 12:47*	*08/29/16 11:29*	*1*
Phenol-d5 (Surr)	*15*		*15 - 110*	*08/22/16 12:47*	*08/29/16 11:29*	*1*
Terphenyl-d14 (Surr)	*104*		*30 - 130*	*08/22/16 12:47*	*08/29/16 11:29*	*1*
2,4,6-Tribromophenol (Surr)	*104*		*15 - 110*	*08/22/16 12:47*	*08/29/16 11:29*	*1*
2-Fluorophenol (Surr)	*34*		*15 - 110*	*08/22/16 12:47*	*08/29/16 11:29*	*1*
2-Fluorobiphenyl	*86*		*30 - 130*	*08/22/16 12:47*	*08/29/16 11:29*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:00	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:00	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:00	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:00	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:00	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:00	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 12:00	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 12:00	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 12:00	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 12:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*56*		*30 - 150*	*08/23/16 19:58*	*08/24/16 12:00*	*1*
Tetrachloro-m-xylene	*60*		*30 - 150*	*08/23/16 19:58*	*08/24/16 12:00*	*1*
DCB Decachlorobiphenyl	*103*		*30 - 150*	*08/23/16 19:58*	*08/24/16 12:00*	*1*
DCB Decachlorobiphenyl	*107*		*30 - 150*	*08/23/16 19:58*	*08/24/16 12:00*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.65**		0.12	0.030	mg/L			08/21/16 02:27	1
Sulfate	**11.4**		0.60	0.11	mg/L			08/21/16 02:27	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:37	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 20:30	08/27/16 19:37	2
Barium	**28.0**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:37	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 19:37	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 19:37	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:37	2
Chromium	**1.5**	**J**	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:37	2
Copper	**1.9**	**J**	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:37	2
Manganese	**1200**		8.0	3.0	ug/L		08/26/16 20:30	08/27/16 19:37	2
Nickel	**11.4**		4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:37	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 19:37	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 19:37	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 19:37	2
Vanadium	**1.8**	**J**	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 19:37	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 19:37	2

Client Sample ID: OB-15B-081716

Date Collected: 08/17/16 12:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-5

Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**244**		40.0	13.5	ug/L		08/26/16 20:30	08/27/16 19:37	2
Sodium	**4040**		200	87.6	ug/L		08/26/16 20:30	08/27/16 19:37	2
Magnesium	**5970**		200	68.4	ug/L		08/26/16 20:30	08/27/16 19:37	2
Potassium	**690**		200	74.8	ug/L		08/26/16 20:30	08/27/16 19:37	2
Calcium	**21300**		200	69.5	ug/L		08/26/16 20:30	08/27/16 19:37	2
Iron	**640**		120	49.1	ug/L		08/26/16 20:30	08/27/16 19:37	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 19:37	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:07	2
Arsenic	**0.78**	**J**	2.0	0.71	ug/L		08/26/16 10:28	08/26/16 14:07	2
Barium	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 22:15	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 10:28	08/26/16 22:15	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 10:28	08/26/16 14:07	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:07	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:07	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:07	2
Manganese	**136**		8.0	3.0	ug/L		08/26/16 10:28	08/26/16 14:07	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:07	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 10:28	08/26/16 14:07	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 10:28	08/26/16 14:07	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 10:28	08/26/16 14:07	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 10:28	08/26/16 14:07	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 10:28	08/26/16 14:07	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 10:28	08/26/16 14:07	2
Sodium	**4090**		200	87.6	ug/L		08/26/16 10:28	08/26/16 14:07	2
Magnesium	**5250**		200	68.4	ug/L		08/26/16 10:28	08/26/16 14:07	2
Potassium	**697**		200	74.8	ug/L		08/26/16 10:28	08/26/16 22:15	2
Calcium	**22200**		200	69.5	ug/L		08/26/16 10:28	08/26/16 14:07	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 10:28	08/26/16 14:07	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 10:28	08/26/16 14:07	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 12:05	08/23/16 14:53	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 14:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/30/16 15:49	08/30/16 19:01	1
Bicarbonate Alkalinity as CaCO3	**74.4**		5.0	5.0	mg/L			08/26/16 10:00	1
Alkalinity	**74.4**		5.0	5.0	mg/L			08/26/16 10:00	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-2-081716
Date Collected: 08/17/16 12:50
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-6
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 02:33	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 02:33	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 02:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*08/24/16 02:33*	*1*
4-Bromofluorobenzene	*89*		*70 - 130*		*08/24/16 02:33*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 03:09	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 03:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 03:09	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 03:09	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 03:09	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 03:09	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 03:09	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 03:09	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 03:09	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 03:09	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 03:09	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 03:09	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 03:09	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 03:09	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 03:09	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 03:09	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 03:09	1
Benzene	0.090	U	1.0	0.090	ug/L			08/23/16 03:09	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 03:09	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 03:09	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 03:09	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 03:09	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 03:09	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 03:09	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 03:09	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/23/16 03:09	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 03:09	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 03:09	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 03:09	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 03:09	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/23/16 03:09	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 03:09	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 03:09	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 03:09	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 03:09	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 03:09	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 03:09	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 03:09	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 03:09	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 03:09	1

Client Sample ID: OB-2-081716

Date Collected: 08/17/16 12:50
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 03:09	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 03:09	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 03:09	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 03:09	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 03:09	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 03:09	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 03:09	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 03:09	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 03:09*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*08/23/16 03:09*	*1*
4-Bromofluorobenzene	*101*		*70 - 130*		*08/23/16 03:09*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*08/23/16 03:09*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*08/23/16 03:09*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.038	U	0.051	0.038	ug/L		08/22/16 12:47	08/28/16 19:21	1
Benzo[a]pyrene	0.027	U	0.051	0.027	ug/L		08/22/16 12:47	08/28/16 19:21	1
Benzo[b]fluoranthene	0.012	U	0.051	0.012	ug/L		08/22/16 12:47	08/28/16 19:21	1
Bis(2-chloroethyl)ether	0.0092	U	0.020	0.0092	ug/L		08/22/16 12:47	08/28/16 19:21	1
Dibenz(a,h)anthracene	0.022	U	0.051	0.022	ug/L		08/22/16 12:47	08/28/16 19:21	1
Hexachlorobenzene	0.0092	U	0.020	0.0092	ug/L		08/22/16 12:47	08/28/16 19:21	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.051	0.028	ug/L		08/22/16 12:47	08/28/16 19:21	1
Pentachlorophenol	0.079	U	0.20	0.079	ug/L		08/22/16 12:47	08/28/16 19:21	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.42	U	10	0.42	ug/L		08/22/16 12:47	08/29/16 12:09	1
2-Chlorophenol	0.76	U	10	0.76	ug/L		08/22/16 12:47	08/29/16 12:09	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/22/16 12:47	08/29/16 12:09	1
4-Methylphenol	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/29/16 12:09	1
2-Nitrophenol	0.60	U	10	0.60	ug/L		08/22/16 12:47	08/29/16 12:09	1
2,4-Dimethylphenol	0.93	U	10	0.93	ug/L		08/22/16 12:47	08/29/16 12:09	1
2,4-Dichlorophenol	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 12:09	1
4-Chloro-3-methylphenol	0.78	U	10	0.78	ug/L		08/22/16 12:47	08/29/16 12:09	1
2,4,6-Trichlorophenol	0.54	U	10	0.54	ug/L		08/22/16 12:47	08/29/16 12:09	1
2,4,5-Trichlorophenol	0.50	U	10	0.50	ug/L		08/22/16 12:47	08/29/16 12:09	1
2,4-Dinitrotoluene	1.1	U	2.0	1.1	ug/L		08/22/16 12:47	08/29/16 12:09	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/22/16 12:47	08/29/16 12:09	1
4,6-Dinitro-2-methylphenol	2.1	U	20	2.1	ug/L		08/22/16 12:47	08/29/16 12:09	1
N-Nitrosodi-n-propylamine	0.85	U	1.0	0.85	ug/L		08/22/16 12:47	08/29/16 12:09	1
Hexachloroethane	0.092	U	1.0	0.092	ug/L		08/22/16 12:47	08/29/16 12:09	1
Nitrobenzene	0.50	U	1.0	0.50	ug/L		08/22/16 12:47	08/29/16 12:09	1
Isophorone	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 12:09	1
Naphthalene	0.82	U	10	0.82	ug/L		08/22/16 12:47	08/29/16 12:09	1
4-Chloroaniline	0.74	U	10	0.74	ug/L		08/22/16 12:47	08/29/16 12:09	1

Client Sample ID: OB-2-081716
Date Collected: 08/17/16 12:50
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.78	U	1.0	0.78	ug/L		08/22/16 12:47	08/29/16 12:09	1
2-Methylnaphthalene	0.90	U	10	0.90	ug/L		08/22/16 12:47	08/29/16 12:09	1
Hexachlorocyclopentadiene	0.62	U	10	0.62	ug/L		08/22/16 12:47	08/29/16 12:09	1
2-Chloronaphthalene	0.62	U	10	0.62	ug/L		08/22/16 12:47	08/29/16 12:09	1
2-Nitroaniline	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 12:09	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 12:09	1
Acenaphthylene	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 12:09	1
2,6-Dinitrotoluene	0.90	U	2.0	0.90	ug/L		08/22/16 12:47	08/29/16 12:09	1
3-Nitroaniline	0.84	U	10	0.84	ug/L		08/22/16 12:47	08/29/16 12:09	1
Acenaphthene	0.90	U	10	0.90	ug/L		08/22/16 12:47	08/29/16 12:09	1
Dibenzofuran	0.87	U	10	0.87	ug/L		08/22/16 12:47	08/29/16 12:09	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/22/16 12:47	08/29/16 12:09	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 12:09	1
4-Chlorophenyl phenyl ether	0.98	U	10	0.98	ug/L		08/22/16 12:47	08/29/16 12:09	1
Fluorene	0.82	U	10	0.82	ug/L		08/22/16 12:47	08/29/16 12:09	1
4-Nitroaniline	0.49	U	10	0.49	ug/L		08/22/16 12:47	08/29/16 12:09	1
N-Nitrosodiphenylamine	0.76	U	10	0.76	ug/L		08/22/16 12:47	08/29/16 12:09	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 12:09	1
Phenanthrene	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 12:09	1
Anthracene	0.58	U	10	0.58	ug/L		08/22/16 12:47	08/29/16 12:09	1
Carbazole	0.87	U	10	0.87	ug/L		08/22/16 12:47	08/29/16 12:09	1
Di-n-butyl phthalate	0.84	U	10	0.84	ug/L		08/22/16 12:47	08/29/16 12:09	1
Fluoranthene	0.73	U	10	0.73	ug/L		08/22/16 12:47	08/29/16 12:09	1
Pyrene	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/29/16 12:09	1
Butyl benzyl phthalate	0.61	U	10	0.61	ug/L		08/22/16 12:47	08/29/16 12:09	1
Chrysene	0.68	U	2.0	0.68	ug/L		08/22/16 12:47	08/29/16 12:09	1
Bis(2-ethylhexyl) phthalate	0.73	U	2.0	0.73	ug/L		08/22/16 12:47	08/29/16 12:09	1
Di-n-octyl phthalate	0.70	U	10	0.70	ug/L		08/22/16 12:47	08/29/16 12:09	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/22/16 12:47	08/29/16 12:09	1
Benzo[g,h,i]perylene	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/29/16 12:09	1
1,1'-Biphenyl	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 12:09	1
Acetophenone	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 12:09	1
Benzaldehyde	0.88	U	10	0.88	ug/L		08/22/16 12:47	08/29/16 12:09	1
Caprolactam	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 12:09	1
Atrazine	0.79	U	2.0	0.79	ug/L		08/22/16 12:47	08/29/16 12:09	1
2,2'-oxybis[1-chloropropane]	0.95	U	10	0.95	ug/L		08/22/16 12:47	08/29/16 12:09	1
1,2,4,5-Tetrachlorobenzene	0.44	U	10	0.44	ug/L		08/22/16 12:47	08/29/16 12:09	1
2,3,4,6-Tetrachlorophenol	0.70	U	10	0.70	ug/L		08/22/16 12:47	08/29/16 12:09	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 12:09	1
Bis(2-chloroethoxy)methane	0.70	U	10	0.70	ug/L		08/22/16 12:47	08/29/16 12:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*99*		*30 - 130*	*08/22/16 12:47*	*08/29/16 12:09*	*1*
Phenol-d5 (Surr)	*24*		*15 - 110*	*08/22/16 12:47*	*08/29/16 12:09*	*1*
Terphenyl-d14 (Surr)	*100*		*30 - 130*	*08/22/16 12:47*	*08/29/16 12:09*	*1*
2,4,6-Tribromophenol (Surr)	*100*		*15 - 110*	*08/22/16 12:47*	*08/29/16 12:09*	*1*
2-Fluorophenol (Surr)	*55*		*15 - 110*	*08/22/16 12:47*	*08/29/16 12:09*	*1*
2-Fluorobiphenyl	*88*		*30 - 130*	*08/22/16 12:47*	*08/29/16 12:09*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-2-081716
Date Collected: 08/17/16 12:50
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-6
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:18	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:18	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:18	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:18	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:18	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:18	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 12:18	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 12:18	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 12:18	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 12:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*63*		*30 - 150*	*08/23/16 19:58*	*08/24/16 12:18*	*1*
Tetrachloro-m-xylene	*67*		*30 - 150*	*08/23/16 19:58*	*08/24/16 12:18*	*1*
DCB Decachlorobiphenyl	*113*		*30 - 150*	*08/23/16 19:58*	*08/24/16 12:18*	*1*
DCB Decachlorobiphenyl	*114*		*30 - 150*	*08/23/16 19:58*	*08/24/16 12:18*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.81**		0.12	0.030	mg/L			08/21/16 02:45	1
Sulfate	**8.94**		0.60	0.11	mg/L			08/21/16 02:45	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:40	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 20:30	08/27/16 19:40	2
Barium	**5.3**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:40	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 19:40	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 19:40	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:40	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:40	2
Copper	**4.1**		4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:40	2
Manganese	**16.0**		8.0	3.0	ug/L		08/26/16 20:30	08/27/16 19:40	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:40	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 19:40	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 19:40	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 19:40	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 19:40	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 19:40	2
Aluminum	**52.0**		40.0	13.5	ug/L		08/26/16 20:30	08/27/16 19:40	2
Sodium	**3920**		200	87.6	ug/L		08/26/16 20:30	08/27/16 19:40	2
Magnesium	**4930**		200	68.4	ug/L		08/26/16 20:30	08/27/16 19:40	2
Potassium	**1340**		200	74.8	ug/L		08/26/16 20:30	08/27/16 19:40	2
Calcium	**12000**		200	69.5	ug/L		08/26/16 20:30	08/27/16 19:40	2
Iron	**133**		120	49.1	ug/L		08/26/16 20:30	08/27/16 19:40	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 19:40	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:29	2

Client Sample ID: OB-2-081716

Lab Sample ID: 460-118817-6

Date Collected: 08/17/16 12:50

Matrix: Water

Date Received: 08/18/16 11:20

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 10:28	08/26/16 14:29	2
Barium	**5.7**		4.0	1.5	ug/L		08/26/16 10:28	08/26/16 22:21	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 10:28	08/26/16 22:21	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 10:28	08/26/16 14:29	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:29	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:29	2
Copper	**1.8**	**J**	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:29	2
Manganese	3.0	U	8.0	3.0	ug/L		08/26/16 10:28	08/26/16 14:29	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:29	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 10:28	08/26/16 14:29	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 10:28	08/26/16 14:29	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 10:28	08/26/16 14:29	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 10:28	08/26/16 14:29	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 10:28	08/26/16 14:29	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 10:28	08/26/16 14:29	2
Sodium	**3890**		200	87.6	ug/L		08/26/16 10:28	08/26/16 14:29	2
Magnesium	**4340**		200	68.4	ug/L		08/26/16 10:28	08/26/16 14:29	2
Potassium	**1360**		200	74.8	ug/L		08/26/16 10:28	08/26/16 22:21	2
Calcium	**12500**		200	69.5	ug/L		08/26/16 10:28	08/26/16 14:29	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 10:28	08/26/16 14:29	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 10:28	08/26/16 14:29	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 12:05	08/23/16 14:55	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 15:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/30/16 15:47	08/30/16 18:45	1
Bicarbonate Alkalinity as CaCO3	**36.2**		5.0	5.0	mg/L			08/26/16 10:00	1
Alkalinity	**36.2**		5.0	5.0	mg/L			08/26/16 10:00	1

Client Sample ID: OB-32-081716

Lab Sample ID: 460-118817-7

Date Collected: 08/17/16 13:30

Matrix: Water

Date Received: 08/18/16 11:20

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 02:58	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 02:58	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 02:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*08/24/16 02:58*	*1*
4-Bromofluorobenzene	*89*		*70 - 130*		*08/24/16 02:58*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-32-081716
Date Collected: 08/17/16 13:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 03:35	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 03:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 03:35	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 03:35	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 03:35	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 03:35	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 03:35	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 03:35	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 03:35	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 03:35	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 03:35	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 03:35	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 03:35	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 03:35	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 03:35	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 03:35	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 03:35	1
Benzene	0.090	U	1.0	0.090	ug/L			08/23/16 03:35	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 03:35	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 03:35	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 03:35	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 03:35	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 03:35	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 03:35	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 03:35	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/23/16 03:35	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 03:35	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 03:35	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 03:35	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 03:35	1
Cyclohexane	**0.39**	**J**	1.0	0.26	ug/L			08/23/16 03:35	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 03:35	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 03:35	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 03:35	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 03:35	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 03:35	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 03:35	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 03:35	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 03:35	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 03:35	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 03:35	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 03:35	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 03:35	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 03:35	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 03:35	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 03:35	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 03:35	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 03:35	1

Client Sample ID: OB-32-081716
Date Collected: 08/17/16 13:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-7
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/23/16 03:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130		08/23/16 03:35	1
4-Bromofluorobenzene	96		70 - 130		08/23/16 03:35	1
Dibromofluoromethane (Surr)	96		70 - 130		08/23/16 03:35	1
Toluene-d8 (Surr)	97		70 - 130		08/23/16 03:35	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.038	U	0.051	0.038	ug/L		08/22/16 12:47	08/28/16 19:49	1
Benzo[a]pyrene	0.027	U	0.051	0.027	ug/L		08/22/16 12:47	08/28/16 19:49	1
Benzo[b]fluoranthene	0.012	U	0.051	0.012	ug/L		08/22/16 12:47	08/28/16 19:49	1
Bis(2-chloroethyl)ether	0.0092	U	0.020	0.0092	ug/L		08/22/16 12:47	08/28/16 19:49	1
Dibenz(a,h)anthracene	0.022	U	0.051	0.022	ug/L		08/22/16 12:47	08/28/16 19:49	1
Hexachlorobenzene	0.0092	U	0.020	0.0092	ug/L		08/22/16 12:47	08/28/16 19:49	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.051	0.028	ug/L		08/22/16 12:47	08/28/16 19:49	1
Pentachlorophenol	0.079	U	0.20	0.079	ug/L		08/22/16 12:47	08/28/16 19:49	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.42	U	10	0.42	ug/L		08/22/16 12:47	08/29/16 12:28	1
2-Chlorophenol	0.76	U	10	0.76	ug/L		08/22/16 12:47	08/29/16 12:28	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/22/16 12:47	08/29/16 12:28	1
4-Methylphenol	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/29/16 12:28	1
2-Nitrophenol	0.60	U	10	0.60	ug/L		08/22/16 12:47	08/29/16 12:28	1
2,4-Dimethylphenol	0.93	U	10	0.93	ug/L		08/22/16 12:47	08/29/16 12:28	1
2,4-Dichlorophenol	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 12:28	1
4-Chloro-3-methylphenol	0.78	U	10	0.78	ug/L		08/22/16 12:47	08/29/16 12:28	1
2,4,6-Trichlorophenol	0.54	U	10	0.54	ug/L		08/22/16 12:47	08/29/16 12:28	1
2,4,5-Trichlorophenol	0.50	U	10	0.50	ug/L		08/22/16 12:47	08/29/16 12:28	1
2,4-Dinitrotoluene	1.1	U	2.0	1.1	ug/L		08/22/16 12:47	08/29/16 12:28	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/22/16 12:47	08/29/16 12:28	1
4,6-Dinitro-2-methylphenol	2.1	U	20	2.1	ug/L		08/22/16 12:47	08/29/16 12:28	1
N-Nitrosodi-n-propylamine	0.85	U	1.0	0.85	ug/L		08/22/16 12:47	08/29/16 12:28	1
Hexachloroethane	0.092	U	1.0	0.092	ug/L		08/22/16 12:47	08/29/16 12:28	1
Nitrobenzene	0.50	U	1.0	0.50	ug/L		08/22/16 12:47	08/29/16 12:28	1
Isophorone	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 12:28	1
Naphthalene	0.82	U	10	0.82	ug/L		08/22/16 12:47	08/29/16 12:28	1
4-Chloroaniline	0.74	U	10	0.74	ug/L		08/22/16 12:47	08/29/16 12:28	1
Hexachlorobutadiene	0.78	U	1.0	0.78	ug/L		08/22/16 12:47	08/29/16 12:28	1
2-Methylnaphthalene	0.90	U	10	0.90	ug/L		08/22/16 12:47	08/29/16 12:28	1
Hexachlorocyclopentadiene	0.62	U	10	0.62	ug/L		08/22/16 12:47	08/29/16 12:28	1
2-Chloronaphthalene	0.62	U	10	0.62	ug/L		08/22/16 12:47	08/29/16 12:28	1
2-Nitroaniline	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 12:28	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 12:28	1
Acenaphthylene	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 12:28	1
2,6-Dinitrotoluene	0.90	U	2.0	0.90	ug/L		08/22/16 12:47	08/29/16 12:28	1
3-Nitroaniline	0.84	U	10	0.84	ug/L		08/22/16 12:47	08/29/16 12:28	1
Acenaphthene	0.90	U	10	0.90	ug/L		08/22/16 12:47	08/29/16 12:28	1
Dibenzofuran	0.87	U	10	0.87	ug/L		08/22/16 12:47	08/29/16 12:28	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-32-081716
Date Collected: 08/17/16 13:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/22/16 12:47	08/29/16 12:28	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 12:28	1
4-Chlorophenyl phenyl ether	0.98	U	10	0.98	ug/L		08/22/16 12:47	08/29/16 12:28	1
Fluorene	0.82	U	10	0.82	ug/L		08/22/16 12:47	08/29/16 12:28	1
4-Nitroaniline	0.49	U	10	0.49	ug/L		08/22/16 12:47	08/29/16 12:28	1
N-Nitrosodiphenylamine	0.76	U	10	0.76	ug/L		08/22/16 12:47	08/29/16 12:28	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 12:28	1
Phenanthrene	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 12:28	1
Anthracene	0.58	U	10	0.58	ug/L		08/22/16 12:47	08/29/16 12:28	1
Carbazole	0.87	U	10	0.87	ug/L		08/22/16 12:47	08/29/16 12:28	1
Di-n-butyl phthalate	0.84	U	10	0.84	ug/L		08/22/16 12:47	08/29/16 12:28	1
Fluoranthene	0.73	U	10	0.73	ug/L		08/22/16 12:47	08/29/16 12:28	1
Pyrene	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/29/16 12:28	1
Butyl benzyl phthalate	0.61	U	10	0.61	ug/L		08/22/16 12:47	08/29/16 12:28	1
Chrysene	0.68	U	2.0	0.68	ug/L		08/22/16 12:47	08/29/16 12:28	1
Bis(2-ethylhexyl) phthalate	0.73	U	2.0	0.73	ug/L		08/22/16 12:47	08/29/16 12:28	1
Di-n-octyl phthalate	0.70	U	10	0.70	ug/L		08/22/16 12:47	08/29/16 12:28	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/22/16 12:47	08/29/16 12:28	1
Benzo[g,h,i]perylene	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/29/16 12:28	1
1,1'-Biphenyl	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 12:28	1
Acetophenone	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 12:28	1
Benzaldehyde	0.88	U	10	0.88	ug/L		08/22/16 12:47	08/29/16 12:28	1
Caprolactam	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 12:28	1
Atrazine	0.79	U	2.0	0.79	ug/L		08/22/16 12:47	08/29/16 12:28	1
2,2'-oxybis[1-chloropropane]	0.95	U	10	0.95	ug/L		08/22/16 12:47	08/29/16 12:28	1
1,2,4,5-Tetrachlorobenzene	0.44	U	10	0.44	ug/L		08/22/16 12:47	08/29/16 12:28	1
2,3,4,6-Tetrachlorophenol	0.70	U	10	0.70	ug/L		08/22/16 12:47	08/29/16 12:28	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 12:28	1
Bis(2-chloroethoxy)methane	0.70	U	10	0.70	ug/L		08/22/16 12:47	08/29/16 12:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*99*		*30 - 130*	*08/22/16 12:47*	*08/29/16 12:28*	*1*
Phenol-d5 (Surr)	*24*		*15 - 110*	*08/22/16 12:47*	*08/29/16 12:28*	*1*
Terphenyl-d14 (Surr)	*102*		*30 - 130*	*08/22/16 12:47*	*08/29/16 12:28*	*1*
2,4,6-Tribromophenol (Surr)	*99*		*15 - 110*	*08/22/16 12:47*	*08/29/16 12:28*	*1*
2-Fluorophenol (Surr)	*51*		*15 - 110*	*08/22/16 12:47*	*08/29/16 12:28*	*1*
2-Fluorobiphenyl	*80*		*30 - 130*	*08/22/16 12:47*	*08/29/16 12:28*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:36	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:36	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:36	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:36	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:36	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 12:36	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 12:36	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 12:36	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 12:36	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 12:36	1

Client Sample ID: OB-32-081716

Date Collected: 08/17/16 13:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-7

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*61*		*30 - 150*	*08/23/16 19:58*	*08/24/16 12:36*	*1*
Tetrachloro-m-xylene	*63*		*30 - 150*	*08/23/16 19:58*	*08/24/16 12:36*	*1*
DCB Decachlorobiphenyl	*77*		*30 - 150*	*08/23/16 19:58*	*08/24/16 12:36*	*1*
DCB Decachlorobiphenyl	*80*		*30 - 150*	*08/23/16 19:58*	*08/24/16 12:36*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.74**		2.40	0.60	mg/L			08/23/16 16:07	20
Sulfate	0.11	U	0.60	0.11	mg/L			08/21/16 03:03	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:42	2
Arsenic	**15.2**		2.0	0.71	ug/L		08/26/16 20:30	08/27/16 19:42	2
Barium	**56.4**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:42	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 19:42	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 19:42	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:42	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:42	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:42	2
Manganese	**9370**		8.0	3.0	ug/L		08/26/16 20:30	08/27/16 19:42	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:42	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 19:42	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 19:42	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 19:42	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 19:42	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 19:42	2
Aluminum	**52.6**		40.0	13.5	ug/L		08/26/16 20:30	08/27/16 19:42	2
Sodium	**3910**		200	87.6	ug/L		08/26/16 20:30	08/27/16 19:42	2
Magnesium	**5460**		200	68.4	ug/L		08/26/16 20:30	08/27/16 19:42	2
Potassium	**2370**		200	74.8	ug/L		08/26/16 20:30	08/27/16 19:42	2
Calcium	**37500**		200	69.5	ug/L		08/26/16 20:30	08/27/16 19:42	2
Iron	**65800**		120	49.1	ug/L		08/26/16 20:30	08/27/16 19:42	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 19:42	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:35	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 10:28	08/26/16 14:35	2
Barium	**29.5**		4.0	1.5	ug/L		08/26/16 10:28	08/26/16 22:26	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 10:28	08/26/16 22:26	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 10:28	08/26/16 14:35	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:35	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:35	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:35	2
Manganese	**9300**		8.0	3.0	ug/L		08/26/16 10:28	08/26/16 14:35	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:35	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 10:28	08/26/16 14:35	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 10:28	08/26/16 14:35	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 10:28	08/26/16 14:35	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 10:28	08/26/16 14:35	2

Client Sample ID: OB-32-081716

Lab Sample ID: 460-118817-7

Date Collected: 08/17/16 13:30

Matrix: Water

Date Received: 08/18/16 11:20

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 10:28	08/26/16 14:35	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 10:28	08/26/16 14:35	2
Sodium	**3900**		200	87.6	ug/L		08/26/16 10:28	08/26/16 14:35	2
Magnesium	**4840**		200	68.4	ug/L		08/26/16 10:28	08/26/16 14:35	2
Potassium	**2360**		200	74.8	ug/L		08/26/16 10:28	08/26/16 22:26	2
Calcium	**38800**		200	69.5	ug/L		08/26/16 10:28	08/26/16 14:35	2
Iron	**20800**		120	49.1	ug/L		08/26/16 10:28	08/26/16 14:35	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 10:28	08/26/16 14:35	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 12:05	08/23/16 14:56	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 15:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:53	1
Bicarbonate Alkalinity as CaCO3	**159**		5.0	5.0	mg/L			08/26/16 10:00	1
Alkalinity	**159**		5.0	5.0	mg/L			08/26/16 10:00	1

Client Sample ID: OB-11R-081716

Lab Sample ID: 460-118817-8

Date Collected: 08/17/16 14:30

Matrix: Water

Date Received: 08/18/16 11:20

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 03:23	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 03:23	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*08/24/16 03:23*	*1*
4-Bromofluorobenzene	*91*		*70 - 130*		*08/24/16 03:23*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 04:01	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 04:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 04:01	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 04:01	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 04:01	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 04:01	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 04:01	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 04:01	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 04:01	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 04:01	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 04:01	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 04:01	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-11R-081716
Date Collected: 08/17/16 14:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 04:01	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 04:01	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 04:01	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 04:01	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 04:01	1
Benzene	**3.2**		1.0	0.090	ug/L			08/23/16 04:01	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 04:01	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 04:01	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 04:01	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 04:01	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 04:01	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 04:01	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 04:01	1
Chloroethane	**24**		1.0	0.37	ug/L			08/23/16 04:01	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 04:01	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 04:01	1
cis-1,2-Dichloroethene	**0.43**	**J**	1.0	0.26	ug/L			08/23/16 04:01	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 04:01	1
Cyclohexane	**2.8**		1.0	0.26	ug/L			08/23/16 04:01	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 04:01	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 04:01	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 04:01	1
Isopropylbenzene	**0.83**	**J**	1.0	0.32	ug/L			08/23/16 04:01	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 04:01	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 04:01	1
Methylcyclohexane	**0.74**	**J**	1.0	0.22	ug/L			08/23/16 04:01	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 04:01	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 04:01	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 04:01	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 04:01	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 04:01	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 04:01	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 04:01	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 04:01	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 04:01	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 04:01	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzene, 2-ethenyl-1,4-dimethyl-	*6.5*	*J N*	*ug/L*		*12.42*	*2039-89-6*		*08/23/16 04:01*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*08/23/16 04:01*	*1*
4-Bromofluorobenzene	*99*		*70 - 130*		*08/23/16 04:01*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*08/23/16 04:01*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*08/23/16 04:01*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/22/16 12:47	08/28/16 20:18	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/22/16 12:47	08/28/16 20:18	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-11R-081716
Date Collected: 08/17/16 14:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-8
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/22/16 12:47	08/28/16 20:18	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/28/16 20:18	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/22/16 12:47	08/28/16 20:18	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/28/16 20:18	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/22/16 12:47	08/28/16 20:18	1
Pentachlorophenol	0.081	U	0.21	0.081	ug/L		08/22/16 12:47	08/28/16 20:18	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/22/16 12:47	08/29/16 12:48	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/29/16 12:48	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/22/16 12:47	08/29/16 12:48	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/22/16 12:47	08/29/16 12:48	1
2-Nitrophenol	0.62	U	10	0.62	ug/L		08/22/16 12:47	08/29/16 12:48	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/22/16 12:47	08/29/16 12:48	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 12:48	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/22/16 12:47	08/29/16 12:48	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/22/16 12:47	08/29/16 12:48	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/22/16 12:47	08/29/16 12:48	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/22/16 12:47	08/29/16 12:48	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/22/16 12:47	08/29/16 12:48	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/22/16 12:47	08/29/16 12:48	1
N-Nitrosodi-n-propylamine	0.87	U	1.0	0.87	ug/L		08/22/16 12:47	08/29/16 12:48	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/22/16 12:47	08/29/16 12:48	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/22/16 12:47	08/29/16 12:48	1
Isophorone	0.70	U	10	0.70	ug/L		08/22/16 12:47	08/29/16 12:48	1
Naphthalene	0.84	U	10	0.84	ug/L		08/22/16 12:47	08/29/16 12:48	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/22/16 12:47	08/29/16 12:48	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/22/16 12:47	08/29/16 12:48	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/29/16 12:48	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 12:48	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 12:48	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 12:48	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 12:48	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 12:48	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/22/16 12:47	08/29/16 12:48	1
3-Nitroaniline	0.86	U	10	0.86	ug/L		08/22/16 12:47	08/29/16 12:48	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/29/16 12:48	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/29/16 12:48	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/22/16 12:47	08/29/16 12:48	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 12:48	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 12:48	1
Fluorene	0.84	U	10	0.84	ug/L		08/22/16 12:47	08/29/16 12:48	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/22/16 12:47	08/29/16 12:48	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/29/16 12:48	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 12:48	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 12:48	1
Anthracene	0.60	U	10	0.60	ug/L		08/22/16 12:47	08/29/16 12:48	1
Carbazole	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/29/16 12:48	1
Di-n-butyl phthalate	0.86	U	10	0.86	ug/L		08/22/16 12:47	08/29/16 12:48	1

Client Sample ID: OB-11R-081716
Date Collected: 08/17/16 14:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.75	U	10	0.75	ug/L		08/22/16 12:47	08/29/16 12:48	1
Pyrene	0.87	U	10	0.87	ug/L		08/22/16 12:47	08/29/16 12:48	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/22/16 12:47	08/29/16 12:48	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/22/16 12:47	08/29/16 12:48	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/22/16 12:47	08/29/16 12:48	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 12:48	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/22/16 12:47	08/29/16 12:48	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/22/16 12:47	08/29/16 12:48	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 12:48	1
Acetophenone	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 12:48	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/22/16 12:47	08/29/16 12:48	1
Caprolactam	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 12:48	1
Atrazine	0.81	U	2.1	0.81	ug/L		08/22/16 12:47	08/29/16 12:48	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/22/16 12:47	08/29/16 12:48	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/22/16 12:47	08/29/16 12:48	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 12:48	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 12:48	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 12:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*98*		*30 - 130*	*08/22/16 12:47*	*08/29/16 12:48*	*1*
Phenol-d5 (Surr)	*24*		*15 - 110*	*08/22/16 12:47*	*08/29/16 12:48*	*1*
Terphenyl-d14 (Surr)	*99*		*30 - 130*	*08/22/16 12:47*	*08/29/16 12:48*	*1*
2,4,6-Tribromophenol (Surr)	*111*	*X*	*15 - 110*	*08/22/16 12:47*	*08/29/16 12:48*	*1*
2-Fluorophenol (Surr)	*56*		*15 - 110*	*08/22/16 12:47*	*08/29/16 12:48*	*1*
2-Fluorobiphenyl	*81*		*30 - 130*	*08/22/16 12:47*	*08/29/16 12:48*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:42	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:42	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:42	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:42	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:42	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:42	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 15:42	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 15:42	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 15:42	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 15:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*57*		*30 - 150*	*08/23/16 19:58*	*08/24/16 15:42*	*1*
Tetrachloro-m-xylene	*63*		*30 - 150*	*08/23/16 19:58*	*08/24/16 15:42*	*1*
DCB Decachlorobiphenyl	*87*		*30 - 150*	*08/23/16 19:58*	*08/24/16 15:42*	*1*
DCB Decachlorobiphenyl	*85*		*30 - 150*	*08/23/16 19:58*	*08/24/16 15:42*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.57**		2.40	0.60	mg/L			08/23/16 16:25	20
Sulfate	0.11	U	0.60	0.11	mg/L			08/21/16 03:22	1

Client Sample ID: OB-11R-081716

Date Collected: 08/17/16 14:30
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-8

Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:55	2
Arsenic	**23.8**		2.0	0.71	ug/L		08/26/16 20:30	08/27/16 19:55	2
Barium	**101**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:55	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 19:55	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 19:55	2
Cobalt	**2.4**	**J**	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:55	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:55	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:55	2
Manganese	**12700**		8.0	3.0	ug/L		08/26/16 20:30	08/27/16 19:55	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:55	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 19:55	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 19:55	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 19:55	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 19:55	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 19:55	2
Aluminum	**34.5**	**J**	40.0	13.5	ug/L		08/26/16 20:30	08/27/16 19:55	2
Sodium	**4000**		200	87.6	ug/L		08/26/16 20:30	08/27/16 19:55	2
Magnesium	**8430**		200	68.4	ug/L		08/26/16 20:30	08/27/16 19:55	2
Potassium	**3040**		200	74.8	ug/L		08/26/16 20:30	08/27/16 19:55	2
Calcium	**61800**		200	69.5	ug/L		08/26/16 20:30	08/27/16 19:55	2
Iron	**81100**		120	49.1	ug/L		08/26/16 20:30	08/27/16 19:55	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 19:55	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:41	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 10:28	08/26/16 14:41	2
Barium	**41.1**		4.0	1.5	ug/L		08/26/16 10:28	08/26/16 22:32	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 10:28	08/26/16 22:32	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 10:28	08/26/16 14:41	2
Cobalt	**2.2**	**J**	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:41	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:41	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:41	2
Manganese	**12000**		8.0	3.0	ug/L		08/26/16 10:28	08/26/16 14:41	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:41	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 10:28	08/26/16 14:41	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 10:28	08/26/16 14:41	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 10:28	08/26/16 14:41	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 10:28	08/26/16 14:41	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 10:28	08/26/16 14:41	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 10:28	08/26/16 14:41	2
Sodium	**3900**		200	87.6	ug/L		08/26/16 10:28	08/26/16 14:41	2
Magnesium	**8140**		200	68.4	ug/L		08/26/16 10:28	08/26/16 14:41	2
Potassium	**3050**		200	74.8	ug/L		08/26/16 10:28	08/26/16 22:32	2
Calcium	**61900**		200	69.5	ug/L		08/26/16 10:28	08/26/16 14:41	2
Iron	**18900**		120	49.1	ug/L		08/26/16 10:28	08/26/16 14:41	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 10:28	08/26/16 14:41	2

Client Sample ID: OB-11R-081716

Lab Sample ID: 460-118817-8

Date Collected: 08/17/16 14:30

Matrix: Water

Date Received: 08/18/16 11:20

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 12:05	08/23/16 14:58	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 15:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:54	1
Bicarbonate Alkalinity as CaCO3	**251**		5.0	5.0	mg/L			08/26/16 10:00	1
Alkalinity	**251**		5.0	5.0	mg/L			08/26/16 10:00	1

Client Sample ID: OB-31-081716

Lab Sample ID: 460-118817-9

Date Collected: 08/17/16 14:45

Matrix: Water

Date Received: 08/18/16 11:20

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 03:48	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 03:48	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 03:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*08/24/16 03:48*	*1*
4-Bromofluorobenzene	*91*		*70 - 130*		*08/24/16 03:48*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 04:27	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 04:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 04:27	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 04:27	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 04:27	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 04:27	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 04:27	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 04:27	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 04:27	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 04:27	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 04:27	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 04:27	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 04:27	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 04:27	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 04:27	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 04:27	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 04:27	1
Benzene	**0.14**	**J**	1.0	0.090	ug/L			08/23/16 04:27	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 04:27	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 04:27	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 04:27	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 04:27	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 04:27	1

Client Sample ID: OB-31-081716
Date Collected: 08/17/16 14:45
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 04:27	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 04:27	1
Chloroethane	**4.9**		1.0	0.37	ug/L			08/23/16 04:27	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 04:27	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 04:27	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 04:27	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 04:27	1
Cyclohexane	**0.41**	**J**	1.0	0.26	ug/L			08/23/16 04:27	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 04:27	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 04:27	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 04:27	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 04:27	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 04:27	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 04:27	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 04:27	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 04:27	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 04:27	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 04:27	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 04:27	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 04:27	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 04:27	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 04:27	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 04:27	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 04:27	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 04:27	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 04:27*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*08/23/16 04:27*	*1*
4-Bromofluorobenzene	*97*		*70 - 130*		*08/23/16 04:27*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*08/23/16 04:27*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*08/23/16 04:27*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/22/16 12:47	08/29/16 05:04	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/22/16 12:47	08/29/16 05:04	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/22/16 12:47	08/29/16 05:04	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/22/16 12:47	08/29/16 05:04	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/22/16 12:47	08/29/16 05:04	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		08/22/16 12:47	08/29/16 05:04	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/22/16 12:47	08/29/16 05:04	1
Pentachlorophenol	**0.10**	**J**	0.20	0.077	ug/L		08/22/16 12:47	08/29/16 05:04	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/22/16 12:47	08/29/16 13:08	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/22/16 12:47	08/29/16 13:08	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-31-081716
Date Collected: 08/17/16 14:45
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/22/16 12:47	08/29/16 13:08	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/22/16 12:47	08/29/16 13:08	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/22/16 12:47	08/29/16 13:08	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/22/16 12:47	08/29/16 13:08	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/22/16 12:47	08/29/16 13:08	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/22/16 12:47	08/29/16 13:08	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		08/22/16 12:47	08/29/16 13:08	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/22/16 12:47	08/29/16 13:08	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/22/16 12:47	08/29/16 13:08	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/22/16 12:47	08/29/16 13:08	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/22/16 12:47	08/29/16 13:08	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/22/16 12:47	08/29/16 13:08	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/22/16 12:47	08/29/16 13:08	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/22/16 12:47	08/29/16 13:08	1
Isophorone	0.67	U	10	0.67	ug/L		08/22/16 12:47	08/29/16 13:08	1
Naphthalene	0.80	U	10	0.80	ug/L		08/22/16 12:47	08/29/16 13:08	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/22/16 12:47	08/29/16 13:08	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/22/16 12:47	08/29/16 13:08	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/22/16 12:47	08/29/16 13:08	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/22/16 12:47	08/29/16 13:08	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/22/16 12:47	08/29/16 13:08	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/22/16 12:47	08/29/16 13:08	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/22/16 12:47	08/29/16 13:08	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/22/16 12:47	08/29/16 13:08	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/22/16 12:47	08/29/16 13:08	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/22/16 12:47	08/29/16 13:08	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/22/16 12:47	08/29/16 13:08	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/29/16 13:08	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/22/16 12:47	08/29/16 13:08	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 13:08	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/22/16 12:47	08/29/16 13:08	1
Fluorene	0.80	U	10	0.80	ug/L		08/22/16 12:47	08/29/16 13:08	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/22/16 12:47	08/29/16 13:08	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/22/16 12:47	08/29/16 13:08	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 13:08	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/22/16 12:47	08/29/16 13:08	1
Anthracene	0.57	U	10	0.57	ug/L		08/22/16 12:47	08/29/16 13:08	1
Carbazole	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/29/16 13:08	1
Di-n-butyl phthalate	0.82	U	10	0.82	ug/L		08/22/16 12:47	08/29/16 13:08	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 13:08	1
Pyrene	0.83	U	10	0.83	ug/L		08/22/16 12:47	08/29/16 13:08	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/22/16 12:47	08/29/16 13:08	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/22/16 12:47	08/29/16 13:08	1
Bis(2-ethylhexyl) phthalate	0.72	U	2.0	0.72	ug/L		08/22/16 12:47	08/29/16 13:08	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/22/16 12:47	08/29/16 13:08	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/22/16 12:47	08/29/16 13:08	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/22/16 12:47	08/29/16 13:08	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/22/16 12:47	08/29/16 13:08	1
Acetophenone	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 13:08	1

Client Sample ID: OB-31-081716
Date Collected: 08/17/16 14:45
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	0.86	U	10	0.86	ug/L		08/22/16 12:47	08/29/16 13:08	1
Caprolactam	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 13:08	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/22/16 12:47	08/29/16 13:08	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/22/16 12:47	08/29/16 13:08	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/22/16 12:47	08/29/16 13:08	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/22/16 12:47	08/29/16 13:08	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 13:08	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/22/16 12:47	08/29/16 13:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*91*		*30 - 130*	*08/22/16 12:47*	*08/29/16 13:08*	*1*
Phenol-d5 (Surr)	*21*		*15 - 110*	*08/22/16 12:47*	*08/29/16 13:08*	*1*
Terphenyl-d14 (Surr)	*98*		*30 - 130*	*08/22/16 12:47*	*08/29/16 13:08*	*1*
2,4,6-Tribromophenol (Surr)	*112*	*X*	*15 - 110*	*08/22/16 12:47*	*08/29/16 13:08*	*1*
2-Fluorophenol (Surr)	*44*		*15 - 110*	*08/22/16 12:47*	*08/29/16 13:08*	*1*
2-Fluorobiphenyl	*84*		*30 - 130*	*08/22/16 12:47*	*08/29/16 13:08*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 13:25	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 13:25	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 13:25	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 13:25	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 13:25	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 13:25	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 13:25	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 13:25	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 13:25	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 13:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*58*		*30 - 150*	*08/23/16 19:58*	*08/24/16 13:25*	*1*
Tetrachloro-m-xylene	*55*		*30 - 150*	*08/23/16 19:58*	*08/24/16 13:25*	*1*
DCB Decachlorobiphenyl	*131*		*30 - 150*	*08/23/16 19:58*	*08/24/16 13:25*	*1*
DCB Decachlorobiphenyl	*107*		*30 - 150*	*08/23/16 19:58*	*08/24/16 13:25*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.53**		2.40	0.60	mg/L			08/23/16 16:43	20
Sulfate	0.11	U	0.60	0.11	mg/L			08/21/16 03:40	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:00	2
Arsenic	**12.8**		2.0	0.71	ug/L		08/26/16 20:30	08/27/16 20:00	2
Barium	**42.3**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:00	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 20:00	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 20:00	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:00	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:00	2
Copper	**1.9**	**J**	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:00	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-31-081716
Date Collected: 08/17/16 14:45
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-9
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**6150**		8.0	3.0	ug/L		08/26/16 20:30	08/27/16 20:00	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:00	2
Lead	**0.66**	**J**	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 20:00	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 20:00	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 20:00	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 20:00	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 20:00	2
Aluminum	**154**		40.0	13.5	ug/L		08/26/16 20:30	08/27/16 20:00	2
Sodium	**3250**		200	87.6	ug/L		08/26/16 20:30	08/27/16 20:00	2
Magnesium	**4190**		200	68.4	ug/L		08/26/16 20:30	08/27/16 20:00	2
Potassium	**1330**		200	74.8	ug/L		08/26/16 20:30	08/27/16 20:00	2
Calcium	**23800**		200	69.5	ug/L		08/26/16 20:30	08/27/16 20:00	2
Iron	**43300**		120	49.1	ug/L		08/26/16 20:30	08/27/16 20:00	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 20:00	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:46	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 10:28	08/26/16 14:46	2
Barium	**27.4**		4.0	1.5	ug/L		08/26/16 10:28	08/26/16 22:38	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 10:28	08/26/16 22:38	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 10:28	08/26/16 14:46	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:46	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:46	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:46	2
Manganese	**6120**		8.0	3.0	ug/L		08/26/16 10:28	08/26/16 14:46	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:46	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 10:28	08/26/16 14:46	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 10:28	08/26/16 14:46	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 10:28	08/26/16 14:46	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 10:28	08/26/16 14:46	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 10:28	08/26/16 14:46	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 10:28	08/26/16 14:46	2
Sodium	**3090**		200	87.6	ug/L		08/26/16 10:28	08/26/16 14:46	2
Magnesium	**3670**		200	68.4	ug/L		08/26/16 10:28	08/26/16 14:46	2
Potassium	**1330**		200	74.8	ug/L		08/26/16 10:28	08/26/16 22:38	2
Calcium	**24600**		200	69.5	ug/L		08/26/16 10:28	08/26/16 14:46	2
Iron	**11500**		120	49.1	ug/L		08/26/16 10:28	08/26/16 14:46	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 10:28	08/26/16 14:46	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 12:05	08/23/16 15:00	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 15:09	1

Client Sample ID: OB-31-081716

Lab Sample ID: 460-118817-9

Date Collected: 08/17/16 14:45

Matrix: Water

Date Received: 08/18/16 11:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:55	1
Bicarbonate Alkalinity as CaCO3	**111**		5.0	5.0	mg/L			08/26/16 10:00	1
Alkalinity	**111**		5.0	5.0	mg/L			08/26/16 10:00	1

Client Sample ID: SC-2-081716

Lab Sample ID: 460-118817-10

Date Collected: 08/17/16 15:00

Matrix: Water

Date Received: 08/18/16 11:20

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 04:13	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 04:13	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 04:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*08/24/16 04:13*	*1*
4-Bromofluorobenzene	*84*		*70 - 130*		*08/24/16 04:13*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 04:52	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 04:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 04:52	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 04:52	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 04:52	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 04:52	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 04:52	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 04:52	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 04:52	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 04:52	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 04:52	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 04:52	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 04:52	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 04:52	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 04:52	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 04:52	1
Acetone	**9.2**		5.0	1.1	ug/L			08/23/16 04:52	1
Benzene	0.090	U	1.0	0.090	ug/L			08/23/16 04:52	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 04:52	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 04:52	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 04:52	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 04:52	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 04:52	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 04:52	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 04:52	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/23/16 04:52	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 04:52	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 04:52	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 04:52	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 04:52	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: SC-2-081716
Date Collected: 08/17/16 15:00
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-10
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/23/16 04:52	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 04:52	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 04:52	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 04:52	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 04:52	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 04:52	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 04:52	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 04:52	1
Methylene Chloride	**0.22**	**J**	1.0	0.21	ug/L			08/23/16 04:52	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 04:52	1
Tetrachloroethene	**0.15**	**J**	1.0	0.12	ug/L			08/23/16 04:52	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 04:52	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 04:52	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 04:52	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 04:52	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 04:52	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 04:52	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 04:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 04:52*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*08/23/16 04:52*	*1*
4-Bromofluorobenzene	*97*		*70 - 130*		*08/23/16 04:52*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*08/23/16 04:52*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*08/23/16 04:52*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/22/16 12:47	08/29/16 05:33	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/22/16 12:47	08/29/16 05:33	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/22/16 12:47	08/29/16 05:33	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/29/16 05:33	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/22/16 12:47	08/29/16 05:33	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/29/16 05:33	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/22/16 12:47	08/29/16 05:33	1
Pentachlorophenol	**0.11**	**J**	0.21	0.080	ug/L		08/22/16 12:47	08/29/16 05:33	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/22/16 12:47	08/29/16 13:27	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/29/16 13:27	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/22/16 12:47	08/29/16 13:27	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/22/16 12:47	08/29/16 13:27	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/22/16 12:47	08/29/16 13:27	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/22/16 12:47	08/29/16 13:27	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 13:27	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/22/16 12:47	08/29/16 13:27	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/22/16 12:47	08/29/16 13:27	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: SC-2-081716
Date Collected: 08/17/16 15:00
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-10
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/22/16 12:47	08/29/16 13:27	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/22/16 12:47	08/29/16 13:27	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/22/16 12:47	08/29/16 13:27	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/22/16 12:47	08/29/16 13:27	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/22/16 12:47	08/29/16 13:27	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/22/16 12:47	08/29/16 13:27	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/22/16 12:47	08/29/16 13:27	1
Isophorone	0.70	U	10	0.70	ug/L		08/22/16 12:47	08/29/16 13:27	1
Naphthalene	0.83	U	10	0.83	ug/L		08/22/16 12:47	08/29/16 13:27	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/22/16 12:47	08/29/16 13:27	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/22/16 12:47	08/29/16 13:27	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/29/16 13:27	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 13:27	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 13:27	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 13:27	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 13:27	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 13:27	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/22/16 12:47	08/29/16 13:27	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/29/16 13:27	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/29/16 13:27	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/29/16 13:27	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/22/16 12:47	08/29/16 13:27	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 13:27	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 13:27	1
Fluorene	0.83	U	10	0.83	ug/L		08/22/16 12:47	08/29/16 13:27	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/22/16 12:47	08/29/16 13:27	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/29/16 13:27	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 13:27	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 13:27	1
Anthracene	0.59	U	10	0.59	ug/L		08/22/16 12:47	08/29/16 13:27	1
Carbazole	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/29/16 13:27	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/29/16 13:27	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/22/16 12:47	08/29/16 13:27	1
Pyrene	0.86	U	10	0.86	ug/L		08/22/16 12:47	08/29/16 13:27	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/22/16 12:47	08/29/16 13:27	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/22/16 12:47	08/29/16 13:27	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/22/16 12:47	08/29/16 13:27	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 13:27	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/22/16 12:47	08/29/16 13:27	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/22/16 12:47	08/29/16 13:27	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 13:27	1
Acetophenone	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 13:27	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/22/16 12:47	08/29/16 13:27	1
Caprolactam	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 13:27	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/22/16 12:47	08/29/16 13:27	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/22/16 12:47	08/29/16 13:27	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/22/16 12:47	08/29/16 13:27	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 13:27	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 13:27	1

Client Sample ID: SC-2-081716
Date Collected: 08/17/16 15:00
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-10
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*99*		*30 - 130*	*08/22/16 12:47*	*08/29/16 13:27*	*1*
Phenol-d5 (Surr)	*22*		*15 - 110*	*08/22/16 12:47*	*08/29/16 13:27*	*1*
Terphenyl-d14 (Surr)	*105*		*30 - 130*	*08/22/16 12:47*	*08/29/16 13:27*	*1*
2,4,6-Tribromophenol (Surr)	*107*		*15 - 110*	*08/22/16 12:47*	*08/29/16 13:27*	*1*
2-Fluorophenol (Surr)	*52*		*15 - 110*	*08/22/16 12:47*	*08/29/16 13:27*	*1*
2-Fluorobiphenyl	*87*		*30 - 130*	*08/22/16 12:47*	*08/29/16 13:27*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 13:43	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 13:43	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 13:43	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 13:43	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 13:43	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 13:43	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 13:43	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 13:43	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 13:43	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 13:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*45*		*30 - 150*	*08/23/16 19:58*	*08/24/16 13:43*	*1*
Tetrachloro-m-xylene	*47*		*30 - 150*	*08/23/16 19:58*	*08/24/16 13:43*	*1*
DCB Decachlorobiphenyl	*96*		*30 - 150*	*08/23/16 19:58*	*08/24/16 13:43*	*1*
DCB Decachlorobiphenyl	*97*		*30 - 150*	*08/23/16 19:58*	*08/24/16 13:43*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.86**		2.40	0.60	mg/L			08/23/16 17:01	20
Sulfate	**35.0**		12.0	2.10	mg/L			08/23/16 17:01	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:05	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 20:30	08/27/16 20:05	2
Barium	**37.2**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:05	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 20:05	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 20:05	2
Cobalt	**1.7**	**J**	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:05	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:05	2
Copper	**19.8**		4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:05	2
Manganese	**44.5**		8.0	3.0	ug/L		08/26/16 20:30	08/27/16 20:05	2
Nickel	**2.3**	**J**	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:05	2
Lead	**2.0**		1.2	0.44	ug/L		08/26/16 20:30	08/27/16 20:05	2
Antimony	**1.3**	**J**	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 20:05	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 20:05	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 20:05	2
Zinc	**39.7**		16.0	6.5	ug/L		08/26/16 20:30	08/27/16 20:05	2

Client Sample ID: SC-2-081716

Date Collected: 08/17/16 15:00
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-10

Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**47.8**		40.0	13.5	ug/L		08/26/16 20:30	08/27/16 20:05	2
Sodium	**8480**		200	87.6	ug/L		08/26/16 20:30	08/27/16 20:05	2
Magnesium	**17700**		200	68.4	ug/L		08/26/16 20:30	08/27/16 20:05	2
Potassium	**3560**		200	74.8	ug/L		08/26/16 20:30	08/27/16 20:05	2
Calcium	**64900**		200	69.5	ug/L		08/26/16 20:30	08/27/16 20:05	2
Iron	**331**		120	49.1	ug/L		08/26/16 20:30	08/27/16 20:05	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 20:05	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:52	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 10:28	08/26/16 14:52	2
Barium	**37.5**		4.0	1.5	ug/L		08/26/16 10:28	08/26/16 22:44	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 10:28	08/26/16 22:44	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 10:28	08/26/16 14:52	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:52	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:52	2
Copper	**9.2**		4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:52	2
Manganese	**8.8**		8.0	3.0	ug/L		08/26/16 10:28	08/26/16 14:52	2
Nickel	**1.7**	**J**	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:52	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 10:28	08/26/16 14:52	2
Antimony	**0.96**	**J**	2.0	0.76	ug/L		08/26/16 10:28	08/26/16 14:52	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 10:28	08/26/16 14:52	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 10:28	08/26/16 14:52	2
Zinc	**36.5**		16.0	6.5	ug/L		08/26/16 10:28	08/26/16 14:52	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 10:28	08/26/16 14:52	2
Sodium	**8420**		200	87.6	ug/L		08/26/16 10:28	08/26/16 14:52	2
Magnesium	**17300**		200	68.4	ug/L		08/26/16 10:28	08/26/16 14:52	2
Potassium	**3670**		200	74.8	ug/L		08/26/16 10:28	08/26/16 22:44	2
Calcium	**70600**		200	69.5	ug/L		08/26/16 10:28	08/26/16 14:52	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 10:28	08/26/16 14:52	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 10:28	08/26/16 14:52	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 12:05	08/23/16 15:10	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 15:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:56	1
Bicarbonate Alkalinity as CaCO3	**229**		5.0	5.0	mg/L			08/26/16 10:00	1
Alkalinity	**229**		5.0	5.0	mg/L			08/26/16 10:00	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-27-081716
Date Collected: 08/17/16 16:05
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-11
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 04:39	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 04:39	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 04:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*08/24/16 04:39*	*1*
4-Bromofluorobenzene	*90*		*70 - 130*		*08/24/16 04:39*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 05:18	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 05:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 05:18	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 05:18	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 05:18	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 05:18	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 05:18	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 05:18	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 05:18	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 05:18	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 05:18	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 05:18	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 05:18	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 05:18	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 05:18	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 05:18	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 05:18	1
Benzene	**2.3**		1.0	0.090	ug/L			08/23/16 05:18	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 05:18	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 05:18	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 05:18	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 05:18	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 05:18	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 05:18	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 05:18	1
Chloroethane	**61**		1.0	0.37	ug/L			08/23/16 05:18	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 05:18	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 05:18	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 05:18	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 05:18	1
Cyclohexane	**1.7**		1.0	0.26	ug/L			08/23/16 05:18	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 05:18	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 05:18	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 05:18	1
Isopropylbenzene	**2.9**		1.0	0.32	ug/L			08/23/16 05:18	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 05:18	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 05:18	1
Methylcyclohexane	**1.3**		1.0	0.22	ug/L			08/23/16 05:18	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 05:18	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 05:18	1

Client Sample ID: OB-27-081716
Date Collected: 08/17/16 16:05
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-11
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 05:18	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 05:18	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 05:18	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 05:18	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 05:18	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 05:18	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 05:18	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 05:18	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Indane	*9.1*	*J N*	*ug/L*		*11.54*	*496-11-7*		*08/23/16 05:18*	*1*
Benzene, 1-ethyl-2,3-dimethyl-	*6.4*	*J N*	*ug/L*		*12.08*	*933-98-2*		*08/23/16 05:18*	*1*
1H-Indene, 2,3-dihydro-4-methyl-	*15*	*J N*	*ug/L*		*12.42*	*824-22-6*		*08/23/16 05:18*	*1*
Benzene, (3-methyl-2-butenyl)-	*7.5*	*J N*	*ug/L*		*12.75*	*4489-84-3*		*08/23/16 05:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*08/23/16 05:18*	*1*
4-Bromofluorobenzene	*97*		*70 - 130*		*08/23/16 05:18*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*08/23/16 05:18*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*08/23/16 05:18*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/22/16 12:47	08/29/16 06:02	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/22/16 12:47	08/29/16 06:02	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/22/16 12:47	08/29/16 06:02	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/29/16 06:02	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/22/16 12:47	08/29/16 06:02	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/29/16 06:02	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/22/16 12:47	08/29/16 06:02	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/22/16 12:47	08/29/16 06:02	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/22/16 12:47	08/29/16 13:47	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/29/16 13:47	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/22/16 12:47	08/29/16 13:47	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/22/16 12:47	08/29/16 13:47	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/22/16 12:47	08/29/16 13:47	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/22/16 12:47	08/29/16 13:47	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 13:47	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/22/16 12:47	08/29/16 13:47	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/22/16 12:47	08/29/16 13:47	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/22/16 12:47	08/29/16 13:47	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/22/16 12:47	08/29/16 13:47	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/22/16 12:47	08/29/16 13:47	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/22/16 12:47	08/29/16 13:47	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/22/16 12:47	08/29/16 13:47	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/22/16 12:47	08/29/16 13:47	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/22/16 12:47	08/29/16 13:47	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-27-081716
Date Collected: 08/17/16 16:05
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	0.70	U	10	0.70	ug/L		08/22/16 12:47	08/29/16 13:47	1
Naphthalene	**3.9**	**J**	10	0.83	ug/L		08/22/16 12:47	08/29/16 13:47	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/22/16 12:47	08/29/16 13:47	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/22/16 12:47	08/29/16 13:47	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/29/16 13:47	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 13:47	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 13:47	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 13:47	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 13:47	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 13:47	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/22/16 12:47	08/29/16 13:47	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/29/16 13:47	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/29/16 13:47	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/29/16 13:47	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/22/16 12:47	08/29/16 13:47	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 13:47	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 13:47	1
Fluorene	0.83	U	10	0.83	ug/L		08/22/16 12:47	08/29/16 13:47	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/22/16 12:47	08/29/16 13:47	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/29/16 13:47	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 13:47	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 13:47	1
Anthracene	0.59	U	10	0.59	ug/L		08/22/16 12:47	08/29/16 13:47	1
Carbazole	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/29/16 13:47	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/29/16 13:47	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/22/16 12:47	08/29/16 13:47	1
Pyrene	0.86	U	10	0.86	ug/L		08/22/16 12:47	08/29/16 13:47	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/22/16 12:47	08/29/16 13:47	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/22/16 12:47	08/29/16 13:47	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/22/16 12:47	08/29/16 13:47	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 13:47	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/22/16 12:47	08/29/16 13:47	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/22/16 12:47	08/29/16 13:47	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 13:47	1
Acetophenone	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 13:47	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/22/16 12:47	08/29/16 13:47	1
Caprolactam	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 13:47	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/22/16 12:47	08/29/16 13:47	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/22/16 12:47	08/29/16 13:47	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/22/16 12:47	08/29/16 13:47	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 13:47	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 13:47	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 13:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*93*		*30 - 130*	*08/22/16 12:47*	*08/29/16 13:47*	*1*
Phenol-d5 (Surr)	*26*		*15 - 110*	*08/22/16 12:47*	*08/29/16 13:47*	*1*
Terphenyl-d14 (Surr)	*103*		*30 - 130*	*08/22/16 12:47*	*08/29/16 13:47*	*1*
2,4,6-Tribromophenol (Surr)	*114*	*X*	*15 - 110*	*08/22/16 12:47*	*08/29/16 13:47*	*1*
2-Fluorophenol (Surr)	*58*		*15 - 110*	*08/22/16 12:47*	*08/29/16 13:47*	*1*

Client Sample ID: OB-27-081716
Date Collected: 08/17/16 16:05
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*30 - 130*	*08/22/16 12:47*	*08/29/16 13:47*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:01	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:01	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:01	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:01	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:01	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:01	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 14:01	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 14:01	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 14:01	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*63*		*30 - 150*	*08/23/16 19:58*	*08/24/16 14:01*	*1*
Tetrachloro-m-xylene	*58*		*30 - 150*	*08/23/16 19:58*	*08/24/16 14:01*	*1*
DCB Decachlorobiphenyl	*92*		*30 - 150*	*08/23/16 19:58*	*08/24/16 14:01*	*1*
DCB Decachlorobiphenyl	*77*		*30 - 150*	*08/23/16 19:58*	*08/24/16 14:01*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.41**		2.40	0.60	mg/L			08/23/16 17:20	20
Sulfate	0.11	U	0.60	0.11	mg/L			08/21/16 04:16	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:08	2
Arsenic	**22.5**		2.0	0.71	ug/L		08/26/16 20:30	08/27/16 20:08	2
Barium	**63.7**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:08	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 20:08	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 20:08	2
Cobalt	**4.0**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:08	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:08	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:08	2
Manganese	**7410**		8.0	3.0	ug/L		08/26/16 20:30	08/27/16 20:08	2
Nickel	**2.1**	**J**	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:08	2
Lead	**1.1**	**J**	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 20:08	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 20:08	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 20:08	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 20:08	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 20:08	2
Aluminum	**53.3**		40.0	13.5	ug/L		08/26/16 20:30	08/27/16 20:08	2
Sodium	**3140**		200	87.6	ug/L		08/26/16 20:30	08/27/16 20:08	2
Magnesium	**4730**		200	68.4	ug/L		08/26/16 20:30	08/27/16 20:08	2
Potassium	**1490**		200	74.8	ug/L		08/26/16 20:30	08/27/16 20:08	2
Calcium	**33200**		200	69.5	ug/L		08/26/16 20:30	08/27/16 20:08	2
Iron	**52100**		120	49.1	ug/L		08/26/16 20:30	08/27/16 20:08	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 20:08	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:57	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 10:28	08/26/16 14:57	2
Barium	**38.6**		4.0	1.5	ug/L		08/26/16 10:28	08/26/16 22:50	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 10:28	08/26/16 22:50	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 10:28	08/26/16 14:57	2
Cobalt	**3.7**	**J**	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:57	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 14:57	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:57	2
Manganese	**7340**		8.0	3.0	ug/L		08/26/16 10:28	08/26/16 14:57	2
Nickel	**1.6**	**J**	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 14:57	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 10:28	08/26/16 14:57	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 10:28	08/26/16 14:57	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 10:28	08/26/16 14:57	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 10:28	08/26/16 14:57	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 10:28	08/26/16 14:57	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 10:28	08/26/16 14:57	2
Sodium	**3120**		200	87.6	ug/L		08/26/16 10:28	08/26/16 14:57	2
Magnesium	**4220**		200	68.4	ug/L		08/26/16 10:28	08/26/16 14:57	2
Potassium	**1540**		200	74.8	ug/L		08/26/16 10:28	08/26/16 22:50	2
Calcium	**34700**		200	69.5	ug/L		08/26/16 10:28	08/26/16 14:57	2
Iron	**14300**		120	49.1	ug/L		08/26/16 10:28	08/26/16 14:57	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 10:28	08/26/16 14:57	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 12:05	08/23/16 15:12	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 15:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:57	1
Bicarbonate Alkalinity as CaCO3	**125**		5.0	5.0	mg/L			08/30/16 10:00	1
Alkalinity	**125**		5.0	5.0	mg/L			08/30/16 10:00	1

Client Sample ID: OB-19-081716

Date Collected: 08/17/16 17:20
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-12

Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 05:03	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 05:03	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 05:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*08/24/16 05:03*	*1*
4-Bromofluorobenzene	*88*		*70 - 130*		*08/24/16 05:03*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 12:09	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 12:09	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-19-081716
Date Collected: 08/17/16 17:20
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 12:09	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 12:09	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 12:09	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 12:09	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 12:09	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 12:09	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 12:09	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 12:09	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 12:09	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 12:09	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 12:09	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 12:09	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 12:09	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 12:09	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 12:09	1
Benzene	**0.23**	**J**	1.0	0.090	ug/L			08/23/16 12:09	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 12:09	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 12:09	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 12:09	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 12:09	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 12:09	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 12:09	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 12:09	1
Chloroethane	**1.5**		1.0	0.37	ug/L			08/23/16 12:09	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 12:09	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 12:09	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 12:09	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 12:09	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/23/16 12:09	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 12:09	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 12:09	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 12:09	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 12:09	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 12:09	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 12:09	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 12:09	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 12:09	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 12:09	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 12:09	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 12:09	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 12:09	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 12:09	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 12:09	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 12:09	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 12:09	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 12:09	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 12:09*	*1*

Client Sample ID: OB-19-081716
Date Collected: 08/17/16 17:20
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-12
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*08/23/16 12:09*	*1*
4-Bromofluorobenzene	*99*		*70 - 130*		*08/23/16 12:09*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*08/23/16 12:09*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*08/23/16 12:09*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/22/16 12:47	08/29/16 06:31	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/22/16 12:47	08/29/16 06:31	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/22/16 12:47	08/29/16 06:31	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/29/16 06:31	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/22/16 12:47	08/29/16 06:31	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/22/16 12:47	08/29/16 06:31	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/22/16 12:47	08/29/16 06:31	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/22/16 12:47	08/29/16 06:31	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/22/16 12:47	08/29/16 14:07	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/29/16 14:07	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/22/16 12:47	08/29/16 14:07	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/22/16 12:47	08/29/16 14:07	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/22/16 12:47	08/29/16 14:07	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/22/16 12:47	08/29/16 14:07	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 14:07	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/22/16 12:47	08/29/16 14:07	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/22/16 12:47	08/29/16 14:07	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/22/16 12:47	08/29/16 14:07	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/22/16 12:47	08/29/16 14:07	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/22/16 12:47	08/29/16 14:07	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/22/16 12:47	08/29/16 14:07	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/22/16 12:47	08/29/16 14:07	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/22/16 12:47	08/29/16 14:07	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/22/16 12:47	08/29/16 14:07	1
Isophorone	0.70	U	10	0.70	ug/L		08/22/16 12:47	08/29/16 14:07	1
Naphthalene	0.83	U	10	0.83	ug/L		08/22/16 12:47	08/29/16 14:07	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/22/16 12:47	08/29/16 14:07	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/22/16 12:47	08/29/16 14:07	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/29/16 14:07	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 14:07	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/22/16 12:47	08/29/16 14:07	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 14:07	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 14:07	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 14:07	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/22/16 12:47	08/29/16 14:07	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/29/16 14:07	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/22/16 12:47	08/29/16 14:07	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/29/16 14:07	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/22/16 12:47	08/29/16 14:07	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 14:07	1

Client Sample ID: OB-19-081716
Date Collected: 08/17/16 17:20
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-12
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/29/16 14:07	1
Fluorene	0.83	U	10	0.83	ug/L		08/22/16 12:47	08/29/16 14:07	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/22/16 12:47	08/29/16 14:07	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/22/16 12:47	08/29/16 14:07	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 14:07	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/22/16 12:47	08/29/16 14:07	1
Anthracene	0.59	U	10	0.59	ug/L		08/22/16 12:47	08/29/16 14:07	1
Carbazole	0.89	U	10	0.89	ug/L		08/22/16 12:47	08/29/16 14:07	1
Di-n-butyl phthalate	**1.2**	**J**	10	0.85	ug/L		08/22/16 12:47	08/29/16 14:07	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/22/16 12:47	08/29/16 14:07	1
Pyrene	0.86	U	10	0.86	ug/L		08/22/16 12:47	08/29/16 14:07	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/22/16 12:47	08/29/16 14:07	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/22/16 12:47	08/29/16 14:07	1
Bis(2-ethylhexyl) phthalate	**1.4**	**J**	2.1	0.75	ug/L		08/22/16 12:47	08/29/16 14:07	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 14:07	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/22/16 12:47	08/29/16 14:07	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/22/16 12:47	08/29/16 14:07	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/22/16 12:47	08/29/16 14:07	1
Acetophenone	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 14:07	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/22/16 12:47	08/29/16 14:07	1
Caprolactam	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 14:07	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/22/16 12:47	08/29/16 14:07	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/22/16 12:47	08/29/16 14:07	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/22/16 12:47	08/29/16 14:07	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 14:07	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/29/16 14:07	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/29/16 14:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*98*		*30 - 130*	*08/22/16 12:47*	*08/29/16 14:07*	*1*
Phenol-d5 (Surr)	*23*		*15 - 110*	*08/22/16 12:47*	*08/29/16 14:07*	*1*
Terphenyl-d14 (Surr)	*97*		*30 - 130*	*08/22/16 12:47*	*08/29/16 14:07*	*1*
2,4,6-Tribromophenol (Surr)	*103*		*15 - 110*	*08/22/16 12:47*	*08/29/16 14:07*	*1*
2-Fluorophenol (Surr)	*51*		*15 - 110*	*08/22/16 12:47*	*08/29/16 14:07*	*1*
2-Fluorobiphenyl	*86*		*30 - 130*	*08/22/16 12:47*	*08/29/16 14:07*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:19	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:19	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:19	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:19	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:19	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:19	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 14:19	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 14:19	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 14:19	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 14:19	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-19-081716
Date Collected: 08/17/16 17:20
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-12
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		30 - 150	08/23/16 19:58	08/24/16 14:19	1
Tetrachloro-m-xylene	65		30 - 150	08/23/16 19:58	08/24/16 14:19	1
DCB Decachlorobiphenyl	90		30 - 150	08/23/16 19:58	08/24/16 14:19	1
DCB Decachlorobiphenyl	92		30 - 150	08/23/16 19:58	08/24/16 14:19	1

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.79**		2.40	0.60	mg/L			08/23/16 17:38	20
Sulfate	**1.10**		0.60	0.11	mg/L			08/21/16 04:35	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:13	2
Arsenic	**0.90**	**J**	2.0	0.71	ug/L		08/26/16 20:30	08/27/16 20:13	2
Barium	**99.8**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:13	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 20:13	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 20:13	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:13	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:13	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:13	2
Manganese	**329**		8.0	3.0	ug/L		08/26/16 20:30	08/27/16 20:13	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:13	2
Lead	**0.47**	**J**	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 20:13	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 20:13	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 20:13	2
Vanadium	**2.6**	**J**	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 20:13	2
Zinc	**7.1**	**J**	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 20:13	2
Aluminum	**42.6**		40.0	13.5	ug/L		08/26/16 20:30	08/27/16 20:13	2
Sodium	**3670**		200	87.6	ug/L		08/26/16 20:30	08/27/16 20:13	2
Magnesium	**3190**		200	68.4	ug/L		08/26/16 20:30	08/27/16 20:13	2
Potassium	**1010**		200	74.8	ug/L		08/26/16 20:30	08/27/16 20:13	2
Calcium	**15700**		200	69.5	ug/L		08/26/16 20:30	08/27/16 20:13	2
Iron	**21200**		120	49.1	ug/L		08/26/16 20:30	08/27/16 20:13	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 20:13	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 10:28	08/26/16 15:03	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 10:28	08/26/16 15:03	2
Barium	**89.3**		4.0	1.5	ug/L		08/26/16 10:28	08/26/16 22:55	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 10:28	08/26/16 22:55	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 10:28	08/26/16 15:03	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 15:03	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 15:03	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 15:03	2
Manganese	**297**		8.0	3.0	ug/L		08/26/16 10:28	08/26/16 15:03	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 15:03	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 10:28	08/26/16 15:03	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 10:28	08/26/16 15:03	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 10:28	08/26/16 15:03	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 10:28	08/26/16 15:03	2

Client Sample ID: OB-19-081716

Lab Sample ID: 460-118817-12

Date Collected: 08/17/16 17:20

Matrix: Water

Date Received: 08/18/16 11:20

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 10:28	08/26/16 15:03	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 10:28	08/26/16 15:03	2
Sodium	**3630**		200	87.6	ug/L		08/26/16 10:28	08/26/16 15:03	2
Magnesium	**2840**		200	68.4	ug/L		08/26/16 10:28	08/26/16 15:03	2
Potassium	**1030**		200	74.8	ug/L		08/26/16 10:28	08/26/16 22:55	2
Calcium	**16300**		200	69.5	ug/L		08/26/16 10:28	08/26/16 15:03	2
Iron	**946**		120	49.1	ug/L		08/26/16 10:28	08/26/16 15:03	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 10:28	08/26/16 15:03	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 12:05	08/23/16 15:17	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 15:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:57	1
Bicarbonate Alkalinity as CaCO3	**56.9**		5.0	5.0	mg/L			08/30/16 10:00	1
Alkalinity	**56.9**		5.0	5.0	mg/L			08/30/16 10:00	1

Client Sample ID: OB-4-081716

Lab Sample ID: 460-118817-13

Date Collected: 08/17/16 17:35

Matrix: Water

Date Received: 08/18/16 11:20

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 05:28	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 05:28	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 05:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*08/24/16 05:28*	*1*
4-Bromofluorobenzene	*91*		*70 - 130*		*08/24/16 05:28*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 12:35	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 12:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 12:35	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 12:35	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 12:35	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 12:35	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 12:35	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 12:35	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 12:35	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 12:35	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 12:35	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 12:35	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-4-081716
Date Collected: 08/17/16 17:35
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-13
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 12:35	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 12:35	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 12:35	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 12:35	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 12:35	1
Benzene	0.090	U	1.0	0.090	ug/L			08/23/16 12:35	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 12:35	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 12:35	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 12:35	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 12:35	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 12:35	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 12:35	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 12:35	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/23/16 12:35	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 12:35	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 12:35	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 12:35	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 12:35	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/23/16 12:35	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 12:35	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 12:35	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 12:35	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 12:35	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 12:35	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 12:35	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 12:35	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 12:35	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 12:35	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 12:35	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 12:35	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 12:35	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 12:35	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 12:35	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 12:35	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 12:35	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 12:35	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 12:35*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*08/23/16 12:35*	*1*
4-Bromofluorobenzene	*99*		*70 - 130*		*08/23/16 12:35*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*08/23/16 12:35*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*08/23/16 12:35*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/22/16 12:47	08/29/16 07:00	1
Benzo[a]pyrene	0.027	U	0.053	0.027	ug/L		08/22/16 12:47	08/29/16 07:00	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-4-081716
Date Collected: 08/17/16 17:35
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-13
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.013	U	0.053	0.013	ug/L		08/22/16 12:47	08/29/16 07:00	1
Bis(2-chloroethyl)ether	0.0095	U	0.021	0.0095	ug/L		08/22/16 12:47	08/29/16 07:00	1
Dibenz(a,h)anthracene	0.023	U	0.053	0.023	ug/L		08/22/16 12:47	08/29/16 07:00	1
Hexachlorobenzene	0.0095	U	0.021	0.0095	ug/L		08/22/16 12:47	08/29/16 07:00	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.053	0.028	ug/L		08/22/16 12:47	08/29/16 07:00	1
Pentachlorophenol	**0.10**	**J**	0.21	0.081	ug/L		08/22/16 12:47	08/29/16 07:00	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	11	0.43	ug/L		08/22/16 12:47	08/29/16 14:26	1
2-Chlorophenol	0.78	U	11	0.78	ug/L		08/22/16 12:47	08/29/16 14:26	1
2-Methylphenol	1.4	U *	11	1.4	ug/L		08/22/16 12:47	08/29/16 14:26	1
4-Methylphenol	0.91	U	11	0.91	ug/L		08/22/16 12:47	08/29/16 14:26	1
2-Nitrophenol	0.62	U	11	0.62	ug/L		08/22/16 12:47	08/29/16 14:26	1
2,4-Dimethylphenol	0.96	U	11	0.96	ug/L		08/22/16 12:47	08/29/16 14:26	1
2,4-Dichlorophenol	0.66	U	11	0.66	ug/L		08/22/16 12:47	08/29/16 14:26	1
4-Chloro-3-methylphenol	0.80	U	11	0.80	ug/L		08/22/16 12:47	08/29/16 14:26	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/22/16 12:47	08/29/16 14:26	1
2,4,5-Trichlorophenol	0.51	U	11	0.51	ug/L		08/22/16 12:47	08/29/16 14:26	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/22/16 12:47	08/29/16 14:26	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/22/16 12:47	08/29/16 14:26	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/22/16 12:47	08/29/16 14:26	1
N-Nitrosodi-n-propylamine	0.87	U	1.1	0.87	ug/L		08/22/16 12:47	08/29/16 14:26	1
Hexachloroethane	0.095	U	1.1	0.095	ug/L		08/22/16 12:47	08/29/16 14:26	1
Nitrobenzene	0.51	U	1.1	0.51	ug/L		08/22/16 12:47	08/29/16 14:26	1
Isophorone	0.70	U	11	0.70	ug/L		08/22/16 12:47	08/29/16 14:26	1
Naphthalene	0.84	U	11	0.84	ug/L		08/22/16 12:47	08/29/16 14:26	1
4-Chloroaniline	0.77	U	11	0.77	ug/L		08/22/16 12:47	08/29/16 14:26	1
Hexachlorobutadiene	0.80	U	1.1	0.80	ug/L		08/22/16 12:47	08/29/16 14:26	1
2-Methylnaphthalene	0.92	U	11	0.92	ug/L		08/22/16 12:47	08/29/16 14:26	1
Hexachlorocyclopentadiene	0.64	U	11	0.64	ug/L		08/22/16 12:47	08/29/16 14:26	1
2-Chloronaphthalene	0.64	U	11	0.64	ug/L		08/22/16 12:47	08/29/16 14:26	1
2-Nitroaniline	0.68	U	11	0.68	ug/L		08/22/16 12:47	08/29/16 14:26	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/22/16 12:47	08/29/16 14:26	1
Acenaphthylene	0.68	U	11	0.68	ug/L		08/22/16 12:47	08/29/16 14:26	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/22/16 12:47	08/29/16 14:26	1
3-Nitroaniline	0.86	U	11	0.86	ug/L		08/22/16 12:47	08/29/16 14:26	1
Acenaphthene	0.92	U	11	0.92	ug/L		08/22/16 12:47	08/29/16 14:26	1
Dibenzofuran	0.89	U	11	0.89	ug/L		08/22/16 12:47	08/29/16 14:26	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/22/16 12:47	08/29/16 14:26	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/22/16 12:47	08/29/16 14:26	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/22/16 12:47	08/29/16 14:26	1
Fluorene	0.84	U	11	0.84	ug/L		08/22/16 12:47	08/29/16 14:26	1
4-Nitroaniline	0.50	U	11	0.50	ug/L		08/22/16 12:47	08/29/16 14:26	1
N-Nitrosodiphenylamine	0.78	U	11	0.78	ug/L		08/22/16 12:47	08/29/16 14:26	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/22/16 12:47	08/29/16 14:26	1
Phenanthrene	0.68	U	11	0.68	ug/L		08/22/16 12:47	08/29/16 14:26	1
Anthracene	0.60	U	11	0.60	ug/L		08/22/16 12:47	08/29/16 14:26	1
Carbazole	0.89	U	11	0.89	ug/L		08/22/16 12:47	08/29/16 14:26	1
Di-n-butyl phthalate	0.86	U	11	0.86	ug/L		08/22/16 12:47	08/29/16 14:26	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-4-081716
Date Collected: 08/17/16 17:35
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-13
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.76	U	11	0.76	ug/L		08/22/16 12:47	08/29/16 14:26	1
Pyrene	0.87	U	11	0.87	ug/L		08/22/16 12:47	08/29/16 14:26	1
Butyl benzyl phthalate	0.63	U	11	0.63	ug/L		08/22/16 12:47	08/29/16 14:26	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/22/16 12:47	08/29/16 14:26	1
Bis(2-ethylhexyl) phthalate	0.76	U	2.1	0.76	ug/L		08/22/16 12:47	08/29/16 14:26	1
Di-n-octyl phthalate	0.72	U	11	0.72	ug/L		08/22/16 12:47	08/29/16 14:26	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/22/16 12:47	08/29/16 14:26	1
Benzo[g,h,i]perylene	0.79	U	11	0.79	ug/L		08/22/16 12:47	08/29/16 14:26	1
1,1'-Biphenyl	0.66	U	11	0.66	ug/L		08/22/16 12:47	08/29/16 14:26	1
Acetophenone	1.1	U	11	1.1	ug/L		08/22/16 12:47	08/29/16 14:26	1
Benzaldehyde	0.90	U	11	0.90	ug/L		08/22/16 12:47	08/29/16 14:26	1
Caprolactam	1.1	U	11	1.1	ug/L		08/22/16 12:47	08/29/16 14:26	1
Atrazine	0.81	U	2.1	0.81	ug/L		08/22/16 12:47	08/29/16 14:26	1
2,2'-oxybis[1-chloropropane]	0.98	U	11	0.98	ug/L		08/22/16 12:47	08/29/16 14:26	1
1,2,4,5-Tetrachlorobenzene	0.45	U	11	0.45	ug/L		08/22/16 12:47	08/29/16 14:26	1
2,3,4,6-Tetrachlorophenol	0.72	U	11	0.72	ug/L		08/22/16 12:47	08/29/16 14:26	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/22/16 12:47	08/29/16 14:26	1
Bis(2-chloroethoxy)methane	0.72	U	11	0.72	ug/L		08/22/16 12:47	08/29/16 14:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*94*		*30 - 130*	*08/22/16 12:47*	*08/29/16 14:26*	*1*
Phenol-d5 (Surr)	*27*		*15 - 110*	*08/22/16 12:47*	*08/29/16 14:26*	*1*
Terphenyl-d14 (Surr)	*99*		*30 - 130*	*08/22/16 12:47*	*08/29/16 14:26*	*1*
2,4,6-Tribromophenol (Surr)	*100*		*15 - 110*	*08/22/16 12:47*	*08/29/16 14:26*	*1*
2-Fluorophenol (Surr)	*57*		*15 - 110*	*08/22/16 12:47*	*08/29/16 14:26*	*1*
2-Fluorobiphenyl	*85*		*30 - 130*	*08/22/16 12:47*	*08/29/16 14:26*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 19:49	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 19:49	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 19:49	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 19:49	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 19:49	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 19:49	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 19:49	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 19:49	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 19:49	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*54*		*30 - 150*	*08/23/16 19:58*	*08/24/16 19:49*	*1*
Tetrachloro-m-xylene	*58*		*30 - 150*	*08/23/16 19:58*	*08/24/16 19:49*	*1*
DCB Decachlorobiphenyl	*97*		*30 - 150*	*08/23/16 19:58*	*08/24/16 19:49*	*1*
DCB Decachlorobiphenyl	*108*		*30 - 150*	*08/23/16 19:58*	*08/24/16 19:49*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**170**		12.0	3.00	mg/L			08/23/16 17:56	100
Sulfate	**17.7**		0.60	0.11	mg/L			08/21/16 04:53	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-4-081716
Date Collected: 08/17/16 17:35
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-13
Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:16	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 20:30	08/27/16 20:16	2
Barium	**52.2**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:16	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 20:16	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 20:16	2
Cobalt	**2.1**	**J**	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:16	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:16	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:16	2
Manganese	**1400**		8.0	3.0	ug/L		08/26/16 20:30	08/27/16 20:16	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:16	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 20:16	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 20:16	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 20:16	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 20:16	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 20:16	2
Aluminum	**27.9**	**J**	40.0	13.5	ug/L		08/26/16 20:30	08/27/16 20:16	2
Sodium	**92700**		200	87.6	ug/L		08/26/16 20:30	08/27/16 20:16	2
Magnesium	**14800**		200	68.4	ug/L		08/26/16 20:30	08/27/16 20:16	2
Potassium	**2470**		200	74.8	ug/L		08/26/16 20:30	08/27/16 20:16	2
Calcium	**43200**		200	69.5	ug/L		08/26/16 20:30	08/27/16 20:16	2
Iron	**5850**		120	49.1	ug/L		08/26/16 20:30	08/27/16 20:16	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 20:16	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 10:28	08/26/16 15:08	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 10:28	08/26/16 15:08	2
Barium	**48.7**		4.0	1.5	ug/L		08/26/16 10:28	08/26/16 23:07	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 10:28	08/26/16 23:07	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 10:28	08/26/16 15:08	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 15:08	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 15:08	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 15:08	2
Manganese	**1470**		8.0	3.0	ug/L		08/26/16 10:28	08/26/16 15:08	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 15:08	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 10:28	08/26/16 15:08	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 10:28	08/26/16 15:08	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 10:28	08/26/16 15:08	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 10:28	08/26/16 15:08	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 10:28	08/26/16 15:08	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 10:28	08/26/16 15:08	2
Sodium	**87800**		200	87.6	ug/L		08/26/16 10:28	08/26/16 15:08	2
Magnesium	**14000**		200	68.4	ug/L		08/26/16 10:28	08/26/16 15:08	2
Potassium	**2470**		200	74.8	ug/L		08/26/16 10:28	08/26/16 23:07	2
Calcium	**45500**		200	69.5	ug/L		08/26/16 10:28	08/26/16 15:08	2
Iron	**528**		120	49.1	ug/L		08/26/16 10:28	08/26/16 15:08	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 10:28	08/26/16 15:08	2

Client Sample ID: OB-4-081716

Lab Sample ID: 460-118817-13

Date Collected: 08/17/16 17:35

Matrix: Water

Date Received: 08/18/16 11:20

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 12:05	08/23/16 15:19	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 15:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:58	1
Bicarbonate Alkalinity as CaCO3	**109**		5.0	5.0	mg/L			08/30/16 10:00	1
Alkalinity	**109**		5.0	5.0	mg/L			08/30/16 10:00	1

Client Sample ID: TB-02-081716

Lab Sample ID: 460-118817-14

Date Collected: 08/17/16 00:00

Matrix: Water

Date Received: 08/18/16 11:20

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 00:54	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 00:54	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*08/24/16 00:54*	*1*
4-Bromofluorobenzene	*89*		*70 - 130*		*08/24/16 00:54*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 00:34	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 00:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 00:34	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 00:34	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 00:34	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 00:34	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 00:34	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 00:34	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 00:34	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 00:34	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 00:34	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 00:34	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 00:34	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 00:34	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 00:34	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 00:34	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 00:34	1
Benzene	0.090	U	1.0	0.090	ug/L			08/23/16 00:34	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 00:34	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 00:34	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 00:34	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 00:34	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 00:34	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: TB-02-081716
Date Collected: 08/17/16 00:00
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-14
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 00:34	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 00:34	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/23/16 00:34	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 00:34	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 00:34	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 00:34	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 00:34	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/23/16 00:34	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 00:34	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 00:34	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 00:34	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 00:34	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 00:34	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 00:34	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 00:34	1
Methylene Chloride	**2.9**		1.0	0.21	ug/L			08/23/16 00:34	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 00:34	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 00:34	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 00:34	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 00:34	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 00:34	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 00:34	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 00:34	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 00:34	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 00:34	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/23/16 00:34*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*08/23/16 00:34*	*1*
4-Bromofluorobenzene	*98*		*70 - 130*		*08/23/16 00:34*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*		*08/23/16 00:34*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*08/23/16 00:34*	*1*

Surrogate Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)	DBFM (70-130)	TOL (70-130)
460-118817-1	OB-30C-081716	95	98	94	99
460-118817-1 MS	OB-30C-081716	99	101	97	101
460-118817-1 MSD	OB-30C-081716	95	98	96	100
460-118817-2	OB-33-081716	99	98	95	100
460-118817-3	OB-12-081716	100	98	98	101
460-118817-4	OB-30B-081716	97	97	95	97
460-118817-5	OB-15B-081716	96	96	96	98
460-118817-6	OB-2-081716	98	101	97	100
460-118817-7	OB-32-081716	97	96	96	97
460-118817-8	OB-11R-081716	100	99	99	100
460-118817-9	OB-31-081716	94	97	96	97
460-118817-10	SC-2-081716	95	97	94	97
460-118817-11	OB-27-081716	97	97	96	99
460-118817-12	OB-19-081716	98	99	98	100
460-118817-13	OB-4-081716	100	99	98	99
460-118817-14	TB-02-081716	97	98	97	100
LCS 460-386113/3	Lab Control Sample	94	98	94	98
LCS 460-386206/3	Lab Control Sample	96	99	98	97
LCSD 460-386206/4	Lab Control Sample Dup	96	100	96	99
MB 460-386113/7	Method Blank	98	100	98	99
MB 460-386206/7	Method Blank	99	99	98	99

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)
460-118817-1	OB-30C-081716	97	93
460-118817-2	OB-33-081716	104	89
460-118817-3	OB-12-081716	103	90
460-118817-4	OB-30B-081716	103	88
460-118817-5	OB-15B-081716	99	88
460-118817-6	OB-2-081716	99	89
460-118817-7	OB-32-081716	95	89
460-118817-8	OB-11R-081716	94	91
460-118817-9	OB-31-081716	95	91
460-118817-10	SC-2-081716	99	84
460-118817-11	OB-27-081716	96	90
460-118817-12	OB-19-081716	99	88
460-118817-13	OB-4-081716	99	91
460-118817-14	TB-02-081716	99	89
LCS 460-386244/4	Lab Control Sample	102	90

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		12DCE	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
LCS 460-386381/4	Lab Control Sample	100	91
LCSD 460-386244/5	Lab Control Sample Dup	102	96
LCSD 460-386381/5	Lab Control Sample Dup	100	97
MB 460-386244/8	Method Blank	105	91
MB 460-386381/8	Method Blank	100	86

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPH	TBP	2FP	FBP
Lab Sample ID	Client Sample ID	(30-130)	(15-110)	(30-130)	(15-110)	(15-110)	(30-130)
460-118817-1	OB-30C-081716	89	25	99	86	51	105
460-118817-2	OB-33-081716	88	27	100	84	54	89
460-118817-3	OB-12-081716	88	27	94	85	47	94
460-118817-4	OB-30B-081716	92	25	97	101	42	89
460-118817-5	OB-15B-081716	95	15	104	104	34	86
460-118817-6	OB-2-081716	99	24	100	100	55	88
460-118817-7	OB-32-081716	99	24	102	99	51	80
460-118817-8	OB-11R-081716	98	24	99	111 X	56	81
460-118817-9	OB-31-081716	91	21	98	112 X	44	84
460-118817-10	SC-2-081716	99	22	105	107	52	87
460-118817-11	OB-27-081716	93	26	103	114 X	58	87
460-118817-12	OB-19-081716	98	23	97	103	51	86
460-118817-13	OB-4-081716	94	27	99	100	57	85
LCS 460-386082/2-A	Lab Control Sample	95	29	89	97	40	94
LCS 460-386082/4-A	Lab Control Sample	85	24	93	88	47	80
LCSD 460-386082/3-A	Lab Control Sample Dup	98	29	98	102	48	93
LCSD 460-386082/5-A	Lab Control Sample Dup	89	25	95	98	51	81
MB 460-386082/1-A	Method Blank	83	16	86	86	39	80

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPH = Terphenyl-d14 (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

2FP = 2-Fluorophenol (Surr)

FBP = 2-Fluorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)
460-118817-1	OB-30C-081716	54	58	97	100

Surrogate Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	TCX1 (30-150)	TCX2 (30-150)	DCB1 (30-150)	DCB2 (30-150)
460-118817-2	OB-33-081716	57	55	114	112
460-118817-3	OB-12-081716	50	51	113	108
460-118817-4	OB-30B-081716	54	57	109	112
460-118817-5	OB-15B-081716	56	60	103	107
460-118817-6	OB-2-081716	63	67	113	114
460-118817-7	OB-32-081716	61	63	77	80
460-118817-8	OB-11R-081716	57	63	87	85
460-118817-9	OB-31-081716	58	55	131	107
460-118817-10	SC-2-081716	45	47	96	97
460-118817-11	OB-27-081716	63	58	92	77
460-118817-12	OB-19-081716	61	65	90	92
460-118817-13	OB-4-081716	54	58	97	108
460-118898-J-4-A MS	Matrix Spike	62	63	105	104
460-118898-J-4-B MSD	Matrix Spike Duplicate	76	74	119	114
LCS 460-386385/2-A - RA	Lab Control Sample	69	72	106	114
LCS 460-386385/2-A	Lab Control Sample	73	73	113	112
MB 460-386385/1-A - RA	Method Blank	79	82	133	143
MB 460-386385/1-A	Method Blank	87	82	147	136

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-386113/7
Matrix: Water
Analysis Batch: 386113

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/22/16 20:16	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/22/16 20:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/22/16 20:16	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/22/16 20:16	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/22/16 20:16	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/22/16 20:16	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/22/16 20:16	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/22/16 20:16	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/22/16 20:16	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/22/16 20:16	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/22/16 20:16	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/22/16 20:16	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/22/16 20:16	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/22/16 20:16	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/22/16 20:16	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/22/16 20:16	1
Acetone	1.1	U	5.0	1.1	ug/L			08/22/16 20:16	1
Benzene	0.090	U	1.0	0.090	ug/L			08/22/16 20:16	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/22/16 20:16	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/22/16 20:16	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/22/16 20:16	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/22/16 20:16	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/22/16 20:16	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/22/16 20:16	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/22/16 20:16	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/22/16 20:16	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/22/16 20:16	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/22/16 20:16	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/22/16 20:16	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/22/16 20:16	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/22/16 20:16	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/22/16 20:16	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/22/16 20:16	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/22/16 20:16	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/22/16 20:16	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/22/16 20:16	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/22/16 20:16	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/22/16 20:16	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/22/16 20:16	1
Styrene	0.17	U	1.0	0.17	ug/L			08/22/16 20:16	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/22/16 20:16	1
Toluene	0.25	U	1.0	0.25	ug/L			08/22/16 20:16	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/22/16 20:16	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/22/16 20:16	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/22/16 20:16	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/22/16 20:16	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/22/16 20:16	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/22/16 20:16	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/22/16 20:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		08/22/16 20:16	1
4-Bromofluorobenzene	100		70 - 130		08/22/16 20:16	1
Dibromofluoromethane (Surr)	98		70 - 130		08/22/16 20:16	1
Toluene-d8 (Surr)	99		70 - 130		08/22/16 20:16	1

Lab Sample ID: LCS 460-386113/3
Matrix: Water
Analysis Batch: 386113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	19.6		ug/L		98	70 - 130
1,1,2,2-Tetrachloroethane	20.0	22.3		ug/L		111	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	23.2		ug/L		116	70 - 130
1,1,2-Trichloroethane	20.0	19.9		ug/L		99	70 - 130
1,1-Dichloroethane	20.0	20.7		ug/L		103	70 - 130
1,1-Dichloroethene	20.0	19.8		ug/L		99	70 - 130
1,2,3-Trichlorobenzene	20.0	23.6		ug/L		118	70 - 130
1,2,4-Trichlorobenzene	20.0	22.4		ug/L		112	70 - 130
1,2-Dichlorobenzene	20.0	21.9		ug/L		110	70 - 130
1,2-Dichloroethane	20.0	18.5		ug/L		93	70 - 130
1,2-Dichloropropane	20.0	21.3		ug/L		107	70 - 130
1,3-Dichlorobenzene	20.0	21.6		ug/L		108	70 - 130
1,4-Dichlorobenzene	20.0	21.9		ug/L		110	70 - 130
2-Butanone (MEK)	100	96.2		ug/L		96	40 - 160
2-Hexanone	100	95.3		ug/L		95	40 - 160
4-Methyl-2-pentanone (MIBK)	100	101		ug/L		101	40 - 160
Acetone	100	83.4		ug/L		83	40 - 160
Benzene	20.0	21.3		ug/L		107	70 - 130
Bromoform	20.0	15.5		ug/L		77	70 - 130
Bromomethane	20.0	19.7		ug/L		99	40 - 160
Carbon disulfide	20.0	19.8		ug/L		99	40 - 160
Carbon tetrachloride	20.0	20.3		ug/L		101	70 - 130
Chlorobenzene	20.0	20.4		ug/L		102	70 - 130
Chlorobromomethane	20.0	19.6		ug/L		98	70 - 130
Chlorodibromomethane	20.0	17.5		ug/L		88	70 - 130
Chloroethane	20.0	21.2		ug/L		106	40 - 160
Chloroform	20.0	19.7		ug/L		99	70 - 130
Chloromethane	20.0	21.2		ug/L		106	40 - 160
cis-1,2-Dichloroethene	20.0	19.0		ug/L		95	70 - 130
cis-1,3-Dichloropropene	20.0	20.1		ug/L		100	70 - 130
Cyclohexane	20.0	21.4		ug/L		107	70 - 130
Dichlorobromomethane	20.0	18.6		ug/L		93	70 - 130
Dichlorodifluoromethane	20.0	20.3		ug/L		102	40 - 160
Ethylbenzene	20.0	20.3		ug/L		102	70 - 130
Isopropylbenzene	20.0	20.9		ug/L		105	70 - 130
Methyl acetate	100	105		ug/L		105	70 - 130
Methyl tert-butyl ether	20.0	19.4		ug/L		97	70 - 130
Methylcyclohexane	20.0	21.8		ug/L		109	70 - 130
Methylene Chloride	20.0	20.2		ug/L		101	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-386113/3
Matrix: Water
Analysis Batch: 386113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Styrene	20.0	20.1		ug/L		101	70 - 130
Tetrachloroethene	20.0	21.0		ug/L		105	70 - 130
Toluene	20.0	20.7		ug/L		104	70 - 130
trans-1,2-Dichloroethene	20.0	19.4		ug/L		97	70 - 130
trans-1,3-Dichloropropene	20.0	20.0		ug/L		100	70 - 130
Trichloroethene	20.0	19.3		ug/L		97	70 - 130
Trichlorofluoromethane	20.0	20.6		ug/L		103	40 - 160
Vinyl chloride	20.0	20.9		ug/L		104	70 - 130
Xylenes, Total	40.0	40.9		ug/L		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*
4-Bromofluorobenzene	*98*		*70 - 130*
Dibromofluoromethane (Surr)	*94*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: 460-118817-1 MS
Matrix: Water
Analysis Batch: 386113

Client Sample ID: OB-30C-081716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.28	U	200	207		ug/L		104	70 - 130
1,1,2,2-Tetrachloroethane	0.19	U	200	219		ug/L		110	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	200	236		ug/L		118	70 - 130
1,1,2-Trichloroethane	0.080	U	200	205		ug/L		102	70 - 130
1,1-Dichloroethane	0.24	U	200	211		ug/L		105	70 - 130
1,1-Dichloroethene	0.34	U	200	200		ug/L		100	70 - 130
1,2,3-Trichlorobenzene	0.35	U	200	178		ug/L		89	70 - 130
1,2,4-Trichlorobenzene	0.27	U	200	199		ug/L		99	70 - 130
1,2-Dichlorobenzene	0.22	U	200	213		ug/L		106	70 - 130
1,2-Dichloroethane	0.25	U	200	197		ug/L		98	70 - 130
1,2-Dichloropropane	0.18	U	200	225		ug/L		113	70 - 130
1,3-Dichlorobenzene	0.33	U	200	221		ug/L		110	70 - 130
1,4-Dichlorobenzene	0.33	U	200	223		ug/L		111	70 - 130
2-Butanone (MEK)	2.2	U	1000	1030		ug/L		103	40 - 160
2-Hexanone	0.72	U	1000	991		ug/L		99	40 - 160
4-Methyl-2-pentanone (MIBK)	0.63	U	1000	1100		ug/L		110	40 - 160
Acetone	1.1	U	1000	850		ug/L		85	40 - 160
Benzene	0.090	U	200	226		ug/L		113	70 - 130
Bromoform	0.18	U	200	160		ug/L		80	70 - 130
Bromomethane	0.18	U	200	207		ug/L		104	40 - 160
Carbon disulfide	0.22	U	200	201		ug/L		100	40 - 160
Carbon tetrachloride	0.33	U	200	216		ug/L		108	70 - 130
Chlorobenzene	0.24	U	200	212		ug/L		106	70 - 130
Chlorobromomethane	0.30	U	200	203		ug/L		102	70 - 130
Chlorodibromomethane	0.22	U	200	181		ug/L		91	70 - 130
Chloroethane	0.37	U	200	223		ug/L		111	40 - 160

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-118817-1 MS
Matrix: Water
Analysis Batch: 386113

Client Sample ID: OB-30C-081716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	0.22	U	200	206		ug/L		103	70 - 130
Chloromethane	0.22	U	200	214		ug/L		107	40 - 160
cis-1,2-Dichloroethene	0.26	U	200	203		ug/L		102	70 - 130
cis-1,3-Dichloropropene	0.16	U	200	210		ug/L		105	70 - 130
Cyclohexane	0.26	U	200	215		ug/L		108	70 - 130
Dichlorobromomethane	0.15	U	200	192		ug/L		96	70 - 130
Dichlorodifluoromethane	0.14	U	200	195		ug/L		98	40 - 160
Ethylbenzene	0.30	U	200	220		ug/L		110	70 - 130
Isopropylbenzene	0.32	U	200	217		ug/L		109	70 - 130
Methyl acetate	0.58	U	1000	1040		ug/L		104	70 - 130
Methyl tert-butyl ether	0.21	J	200	201		ug/L		100	70 - 130
Methylcyclohexane	0.22	U	200	217		ug/L		108	70 - 130
Methylene Chloride	0.21	U	200	203		ug/L		101	70 - 130
Styrene	0.17	U	200	214		ug/L		107	70 - 130
Tetrachloroethene	0.12	U	200	224		ug/L		112	70 - 130
Toluene	0.25	U	200	225		ug/L		113	70 - 130
trans-1,2-Dichloroethene	0.18	U	200	203		ug/L		101	70 - 130
trans-1,3-Dichloropropene	0.19	U	200	204		ug/L		102	70 - 130
Trichloroethene	0.22	U	200	205		ug/L		102	70 - 130
Trichlorofluoromethane	0.15	U	200	208		ug/L		104	40 - 160
Vinyl chloride	0.060	U	200	219		ug/L		110	70 - 130
Xylenes, Total	0.28	U	400	448		ug/L		112	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*
4-Bromofluorobenzene	*101*		*70 - 130*
Dibromofluoromethane (Surr)	*97*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: 460-118817-1 MSD
Matrix: Water
Analysis Batch: 386113

Client Sample ID: OB-30C-081716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.28	U	200	203		ug/L		102	70 - 130	2	20
1,1,2,2-Tetrachloroethane	0.19	U	200	216		ug/L		108	70 - 130	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	200	226		ug/L		113	70 - 130	4	20
1,1,2-Trichloroethane	0.080	U	200	193		ug/L		96	70 - 130	6	20
1,1-Dichloroethane	0.24	U	200	208		ug/L		104	70 - 130	2	20
1,1-Dichloroethene	0.34	U	200	199		ug/L		99	70 - 130	1	20
1,2,3-Trichlorobenzene	0.35	U	200	201		ug/L		100	70 - 130	12	20
1,2,4-Trichlorobenzene	0.27	U	200	216		ug/L		108	70 - 130	8	20
1,2-Dichlorobenzene	0.22	U	200	218		ug/L		109	70 - 130	2	20
1,2-Dichloroethane	0.25	U	200	195		ug/L		98	70 - 130	1	20
1,2-Dichloropropane	0.18	U	200	212		ug/L		106	70 - 130	6	20
1,3-Dichlorobenzene	0.33	U	200	223		ug/L		112	70 - 130	1	20
1,4-Dichlorobenzene	0.33	U	200	221		ug/L		110	70 - 130	1	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-118817-1 MSD
Matrix: Water
Analysis Batch: 386113

Client Sample ID: OB-30C-081716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	2.2	U	1000	951		ug/L		95	40 - 160	8	20
2-Hexanone	0.72	U	1000	977		ug/L		98	40 - 160	1	20
4-Methyl-2-pentanone (MIBK)	0.63	U	1000	1060		ug/L		106	40 - 160	3	20
Acetone	1.1	U	1000	780		ug/L		78	40 - 160	8	20
Benzene	0.090	U	200	215		ug/L		108	70 - 130	5	20
Bromoform	0.18	U	200	161		ug/L		80	70 - 130	0	20
Bromomethane	0.18	U	200	205		ug/L		103	40 - 160	1	20
Carbon disulfide	0.22	U	200	193		ug/L		97	40 - 160	4	20
Carbon tetrachloride	0.33	U	200	207		ug/L		103	70 - 130	5	20
Chlorobenzene	0.24	U	200	208		ug/L		104	70 - 130	2	20
Chlorobromomethane	0.30	U	200	192		ug/L		96	70 - 130	5	20
Chlorodibromomethane	0.22	U	200	178		ug/L		89	70 - 130	2	20
Chloroethane	0.37	U	200	214		ug/L		107	40 - 160	4	20
Chloroform	0.22	U	200	201		ug/L		101	70 - 130	3	20
Chloromethane	0.22	U	200	205		ug/L		102	40 - 160	4	20
cis-1,2-Dichloroethene	0.26	U	200	202		ug/L		101	70 - 130	0	20
cis-1,3-Dichloropropene	0.16	U	200	206		ug/L		103	70 - 130	2	20
Cyclohexane	0.26	U	200	212		ug/L		106	70 - 130	1	20
Dichlorobromomethane	0.15	U	200	193		ug/L		97	70 - 130	1	20
Dichlorodifluoromethane	0.14	U	200	184		ug/L		92	40 - 160	6	20
Ethylbenzene	0.30	U	200	207		ug/L		103	70 - 130	6	20
Isopropylbenzene	0.32	U	200	218		ug/L		109	70 - 130	0	20
Methyl acetate	0.58	U	1000	1020		ug/L		102	70 - 130	2	20
Methyl tert-butyl ether	0.21	J	200	194		ug/L		97	70 - 130	3	20
Methylcyclohexane	0.22	U	200	213		ug/L		106	70 - 130	2	20
Methylene Chloride	0.21	U	200	198		ug/L		99	70 - 130	3	20
Styrene	0.17	U	200	210		ug/L		105	70 - 130	2	20
Tetrachloroethene	0.12	U	200	211		ug/L		105	70 - 130	6	20
Toluene	0.25	U	200	211		ug/L		106	70 - 130	6	20
trans-1,2-Dichloroethene	0.18	U	200	197		ug/L		98	70 - 130	3	20
trans-1,3-Dichloropropene	0.19	U	200	204		ug/L		102	70 - 130	0	20
Trichloroethene	0.22	U	200	202		ug/L		101	70 - 130	1	20
Trichlorofluoromethane	0.15	U	200	201		ug/L		100	40 - 160	3	20
Vinyl chloride	0.060	U	200	207		ug/L		103	70 - 130	6	20
Xylenes, Total	0.28	U	400	421		ug/L		105	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*
4-Bromofluorobenzene	*98*		*70 - 130*
Dibromofluoromethane (Surr)	*96*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: MB 460-386206/7
Matrix: Water
Analysis Batch: 386206

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 09:30	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-386206/7
Matrix: Water
Analysis Batch: 386206

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 09:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 09:30	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 09:30	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 09:30	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 09:30	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 09:30	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 09:30	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 09:30	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 09:30	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 09:30	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 09:30	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 09:30	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 09:30	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 09:30	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 09:30	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 09:30	1
Benzene	0.090	U	1.0	0.090	ug/L			08/23/16 09:30	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 09:30	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 09:30	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 09:30	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 09:30	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 09:30	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 09:30	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 09:30	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/23/16 09:30	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 09:30	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 09:30	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 09:30	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 09:30	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/23/16 09:30	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 09:30	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 09:30	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 09:30	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 09:30	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 09:30	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 09:30	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 09:30	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 09:30	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 09:30	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 09:30	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 09:30	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 09:30	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 09:30	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 09:30	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 09:30	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 09:30	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 09:30	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-386206/7
Matrix: Water
Analysis Batch: 386206

Client Sample ID: Method Blank
Prep Type: Total/NA

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/23/16 09:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		08/23/16 09:30	1
4-Bromofluorobenzene	99		70 - 130		08/23/16 09:30	1
Dibromofluoromethane (Surr)	98		70 - 130		08/23/16 09:30	1
Toluene-d8 (Surr)	99		70 - 130		08/23/16 09:30	1

Lab Sample ID: LCS 460-386206/3
Matrix: Water
Analysis Batch: 386206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	18.7		ug/L		93	70 - 130
1,1,2,2-Tetrachloroethane	20.0	22.6		ug/L		113	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	15.5		ug/L		77	70 - 130
1,1,2-Trichloroethane	20.0	20.2		ug/L		101	70 - 130
1,1-Dichloroethane	20.0	19.6		ug/L		98	70 - 130
1,1-Dichloroethene	20.0	18.1		ug/L		90	70 - 130
1,2,3-Trichlorobenzene	20.0	23.5		ug/L		118	70 - 130
1,2,4-Trichlorobenzene	20.0	22.0		ug/L		110	70 - 130
1,2-Dichlorobenzene	20.0	22.0		ug/L		110	70 - 130
1,2-Dichloroethane	20.0	18.8		ug/L		94	70 - 130
1,2-Dichloropropane	20.0	19.4		ug/L		97	70 - 130
1,3-Dichlorobenzene	20.0	21.7		ug/L		108	70 - 130
1,4-Dichlorobenzene	20.0	21.8		ug/L		109	70 - 130
2-Butanone (MEK)	100	91.8		ug/L		92	40 - 160
2-Hexanone	100	94.0		ug/L		94	40 - 160
4-Methyl-2-pentanone (MIBK)	100	97.8		ug/L		98	40 - 160
Acetone	100	79.0		ug/L		79	40 - 160
Benzene	20.0	20.6		ug/L		103	70 - 130
Bromoform	20.0	16.6		ug/L		83	70 - 130
Bromomethane	20.0	17.3		ug/L		87	40 - 160
Carbon disulfide	20.0	17.8		ug/L		89	40 - 160
Carbon tetrachloride	20.0	18.4		ug/L		92	70 - 130
Chlorobenzene	20.0	19.8		ug/L		99	70 - 130
Chlorobromomethane	20.0	19.0		ug/L		95	70 - 130
Chlorodibromomethane	20.0	18.3		ug/L		92	70 - 130
Chloroethane	20.0	22.0		ug/L		110	40 - 160
Chloroform	20.0	20.0		ug/L		100	70 - 130
Chloromethane	20.0	22.7		ug/L		114	40 - 160
cis-1,2-Dichloroethene	20.0	19.4		ug/L		97	70 - 130
cis-1,3-Dichloropropene	20.0	19.6		ug/L		98	70 - 130
Cyclohexane	20.0	15.4		ug/L		77	70 - 130
Dichlorobromomethane	20.0	18.4		ug/L		92	70 - 130
Dichlorodifluoromethane	20.0	18.5		ug/L		92	40 - 160
Ethylbenzene	20.0	19.6		ug/L		98	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-386206/3
Matrix: Water
Analysis Batch: 386206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	20.0	20.4		ug/L		102	70 - 130
Methyl acetate	100	110		ug/L		110	70 - 130
Methyl tert-butyl ether	20.0	19.6		ug/L		98	70 - 130
Methylcyclohexane	20.0	14.8		ug/L		74	70 - 130
Methylene Chloride	20.0	19.4		ug/L		97	70 - 130
Styrene	20.0	20.0		ug/L		100	70 - 130
Tetrachloroethene	20.0	20.0		ug/L		100	70 - 130
Toluene	20.0	19.9		ug/L		99	70 - 130
trans-1,2-Dichloroethene	20.0	18.9		ug/L		94	70 - 130
trans-1,3-Dichloropropene	20.0	20.0		ug/L		100	70 - 130
Trichloroethene	20.0	19.3		ug/L		96	70 - 130
Trichlorofluoromethane	20.0	20.5		ug/L		103	40 - 160
Vinyl chloride	20.0	22.8		ug/L		114	70 - 130
Xylenes, Total	40.0	40.1		ug/L		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene	*99*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 460-386206/4
Matrix: Water
Analysis Batch: 386206

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	17.8		ug/L		89	70 - 130	5	20
1,1,2,2-Tetrachloroethane	20.0	22.0		ug/L		110	70 - 130	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	14.6		ug/L		73	70 - 130	6	20
1,1,2-Trichloroethane	20.0	19.1		ug/L		95	70 - 130	6	20
1,1-Dichloroethane	20.0	18.8		ug/L		94	70 - 130	4	20
1,1-Dichloroethene	20.0	16.1		ug/L		80	70 - 130	12	20
1,2,3-Trichlorobenzene	20.0	21.8		ug/L		109	70 - 130	8	20
1,2,4-Trichlorobenzene	20.0	21.2		ug/L		106	70 - 130	4	20
1,2-Dichlorobenzene	20.0	20.8		ug/L		104	70 - 130	5	20
1,2-Dichloroethane	20.0	19.1		ug/L		96	70 - 130	2	20
1,2-Dichloropropane	20.0	20.4		ug/L		102	70 - 130	5	20
1,3-Dichlorobenzene	20.0	20.6		ug/L		103	70 - 130	5	20
1,4-Dichlorobenzene	20.0	20.9		ug/L		105	70 - 130	4	20
2-Butanone (MEK)	100	95.8		ug/L		96	40 - 160	4	20
2-Hexanone	100	95.8		ug/L		96	40 - 160	2	20
4-Methyl-2-pentanone (MIBK)	100	104		ug/L		104	40 - 160	6	20
Acetone	100	81.1		ug/L		81	40 - 160	3	20
Benzene	20.0	19.9		ug/L		99	70 - 130	4	20
Bromoform	20.0	16.1		ug/L		80	70 - 130	3	20
Bromomethane	20.0	16.3		ug/L		82	40 - 160	6	20
Carbon disulfide	20.0	17.1		ug/L		86	40 - 160	4	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-386206/4
Matrix: Water
Analysis Batch: 386206

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Carbon tetrachloride	20.0	18.3		ug/L		91	70 - 130	1	20
Chlorobenzene	20.0	19.5		ug/L		98	70 - 130	1	20
Chlorobromomethane	20.0	19.7		ug/L		99	70 - 130	4	20
Chlorodibromomethane	20.0	17.3		ug/L		86	70 - 130	6	20
Chloroethane	20.0	21.7		ug/L		108	40 - 160	1	20
Chloroform	20.0	19.7		ug/L		99	70 - 130	2	20
Chloromethane	20.0	22.2		ug/L		111	40 - 160	3	20
cis-1,2-Dichloroethene	20.0	18.7		ug/L		93	70 - 130	4	20
cis-1,3-Dichloropropene	20.0	19.9		ug/L		99	70 - 130	1	20
Cyclohexane	20.0	14.6		ug/L		73	70 - 130	5	20
Dichlorobromomethane	20.0	17.9		ug/L		89	70 - 130	3	20
Dichlorodifluoromethane	20.0	18.0		ug/L		90	40 - 160	3	20
Ethylbenzene	20.0	19.2		ug/L		96	70 - 130	2	20
Isopropylbenzene	20.0	19.8		ug/L		99	70 - 130	3	20
Methyl acetate	100	105		ug/L		105	70 - 130	4	20
Methyl tert-butyl ether	20.0	19.5		ug/L		97	70 - 130	1	20
Methylcyclohexane	20.0	14.5		ug/L		73	70 - 130	2	20
Methylene Chloride	20.0	19.0		ug/L		95	70 - 130	2	20
Styrene	20.0	20.0		ug/L		100	70 - 130	0	20
Tetrachloroethene	20.0	19.1		ug/L		96	70 - 130	5	20
Toluene	20.0	19.7		ug/L		99	70 - 130	1	20
trans-1,2-Dichloroethene	20.0	18.0		ug/L		90	70 - 130	5	20
trans-1,3-Dichloropropene	20.0	19.8		ug/L		99	70 - 130	1	20
Trichloroethene	20.0	18.3		ug/L		91	70 - 130	5	20
Trichlorofluoromethane	20.0	19.7		ug/L		99	40 - 160	4	20
Vinyl chloride	20.0	21.4		ug/L		107	70 - 130	6	20
Xylenes, Total	40.0	39.5		ug/L		99	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene	*100*		*70 - 130*
Dibromofluoromethane (Surr)	*96*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-386244/8
Matrix: Water
Analysis Batch: 386244

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 12:16	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 12:16	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 12:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*08/23/16 12:16*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-386244/8
Matrix: Water
Analysis Batch: 386244

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		70 - 130		08/23/16 12:16	1

Lab Sample ID: LCS 460-386244/4
Matrix: Water
Analysis Batch: 386244

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.500	0.343		ug/L		69	40 - 160
Ethylene Dibromide	0.500	0.532		ug/L		106	70 - 130
1,2,3-Trichloropropane	0.500	0.432		ug/L		86	40 - 160

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
4-Bromofluorobenzene	90		70 - 130

Lab Sample ID: LCSD 460-386244/5
Matrix: Water
Analysis Batch: 386244

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.500	0.356		ug/L		71	40 - 160	4	20
Ethylene Dibromide	0.500	0.526		ug/L		105	70 - 130	1	20
1,2,3-Trichloropropane	0.500	0.433		ug/L		87	40 - 160	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 130
4-Bromofluorobenzene	96		70 - 130

Lab Sample ID: MB 460-386381/8
Matrix: Water
Analysis Batch: 386381

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/23/16 22:49	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/23/16 22:49	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/23/16 22:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		08/23/16 22:49	1
4-Bromofluorobenzene	86		70 - 130		08/23/16 22:49	1

Lab Sample ID: LCS 460-386381/4
Matrix: Water
Analysis Batch: 386381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.500	0.318		ug/L		64	40 - 160

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-386381/4
Matrix: Water
Analysis Batch: 386381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylene Dibromide			0.500	0.516		ug/L		103	70 - 130		
1,2,3-Trichloropropane			0.500	0.415		ug/L		83	40 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene	*91*		*70 - 130*

Lab Sample ID: LCSD 460-386381/5
Matrix: Water
Analysis Batch: 386381

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.500	0.315		ug/L		63	40 - 160	1	20
Ethylene Dibromide			0.500	0.486		ug/L		97	70 - 130	6	20
1,2,3-Trichloropropane			0.500	0.413		ug/L		83	40 - 160	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene	*97*		*70 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-386082/1-A
Matrix: Water
Analysis Batch: 386667

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386082

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/22/16 12:47	08/25/16 08:52	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/22/16 12:47	08/25/16 08:52	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/22/16 12:47	08/25/16 08:52	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/22/16 12:47	08/25/16 08:52	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/22/16 12:47	08/25/16 08:52	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/22/16 12:47	08/25/16 08:52	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/22/16 12:47	08/25/16 08:52	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/22/16 12:47	08/25/16 08:52	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		08/22/16 12:47	08/25/16 08:52	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/22/16 12:47	08/25/16 08:52	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/22/16 12:47	08/25/16 08:52	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/22/16 12:47	08/25/16 08:52	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/22/16 12:47	08/25/16 08:52	1
Pentachlorophenol	2.2	U	20	2.2	ug/L		08/22/16 12:47	08/25/16 08:52	1
Bis(2-chloroethyl)ether	0.12	U	1.0	0.12	ug/L		08/22/16 12:47	08/25/16 08:52	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/22/16 12:47	08/25/16 08:52	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/22/16 12:47	08/25/16 08:52	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/22/16 12:47	08/25/16 08:52	1
Isophorone	0.67	U	10	0.67	ug/L		08/22/16 12:47	08/25/16 08:52	1
Naphthalene	0.80	U	10	0.80	ug/L		08/22/16 12:47	08/25/16 08:52	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-386082/1-A
Matrix: Water
Analysis Batch: 386667

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386082

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/22/16 12:47	08/25/16 08:52	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/22/16 12:47	08/25/16 08:52	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/22/16 12:47	08/25/16 08:52	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/22/16 12:47	08/25/16 08:52	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/22/16 12:47	08/25/16 08:52	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/22/16 12:47	08/25/16 08:52	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/22/16 12:47	08/25/16 08:52	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/22/16 12:47	08/25/16 08:52	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/22/16 12:47	08/25/16 08:52	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/22/16 12:47	08/25/16 08:52	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/22/16 12:47	08/25/16 08:52	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/25/16 08:52	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/22/16 12:47	08/25/16 08:52	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/25/16 08:52	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/22/16 12:47	08/25/16 08:52	1
Fluorene	0.80	U	10	0.80	ug/L		08/22/16 12:47	08/25/16 08:52	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/22/16 12:47	08/25/16 08:52	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/22/16 12:47	08/25/16 08:52	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/25/16 08:52	1
Hexachlorobenzene	0.47	U	1.0	0.47	ug/L		08/22/16 12:47	08/25/16 08:52	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/22/16 12:47	08/25/16 08:52	1
Anthracene	0.57	U	10	0.57	ug/L		08/22/16 12:47	08/25/16 08:52	1
Carbazole	0.85	U	10	0.85	ug/L		08/22/16 12:47	08/25/16 08:52	1
Di-n-butyl phthalate	0.82	U	10	0.82	ug/L		08/22/16 12:47	08/25/16 08:52	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/22/16 12:47	08/25/16 08:52	1
Pyrene	0.83	U	10	0.83	ug/L		08/22/16 12:47	08/25/16 08:52	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/22/16 12:47	08/25/16 08:52	1
Benzo[a]anthracene	0.55	U	1.0	0.55	ug/L		08/22/16 12:47	08/25/16 08:52	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/22/16 12:47	08/25/16 08:52	1
Bis(2-ethylhexyl) phthalate	0.72	U	2.0	0.72	ug/L		08/22/16 12:47	08/25/16 08:52	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/22/16 12:47	08/25/16 08:52	1
Benzo[b]fluoranthene	0.44	U	1.0	0.44	ug/L		08/22/16 12:47	08/25/16 08:52	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/22/16 12:47	08/25/16 08:52	1
Benzo[a]pyrene	0.16	U	1.0	0.16	ug/L		08/22/16 12:47	08/25/16 08:52	1
Indeno[1,2,3-cd]pyrene	0.21	U	1.0	0.21	ug/L		08/22/16 12:47	08/25/16 08:52	1
Dibenz(a,h)anthracene	0.090	U	1.0	0.090	ug/L		08/22/16 12:47	08/25/16 08:52	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/22/16 12:47	08/25/16 08:52	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/22/16 12:47	08/25/16 08:52	1
Acetophenone	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/25/16 08:52	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/22/16 12:47	08/25/16 08:52	1
Caprolactam	1.1	U	10	1.1	ug/L		08/22/16 12:47	08/25/16 08:52	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/22/16 12:47	08/25/16 08:52	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/22/16 12:47	08/25/16 08:52	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/22/16 12:47	08/25/16 08:52	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/22/16 12:47	08/25/16 08:52	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/22/16 12:47	08/25/16 08:52	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/22/16 12:47	08/25/16 08:52	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-386082/1-A
Matrix: Water
Analysis Batch: 386667

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386082

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	83		30 - 130	08/22/16 12:47	08/25/16 08:52	1
Phenol-d5 (Surr)	16		15 - 110	08/22/16 12:47	08/25/16 08:52	1
Terphenyl-d14 (Surr)	86		30 - 130	08/22/16 12:47	08/25/16 08:52	1
2,4,6-Tribromophenol (Surr)	86		15 - 110	08/22/16 12:47	08/25/16 08:52	1
2-Fluorophenol (Surr)	39		15 - 110	08/22/16 12:47	08/25/16 08:52	1
2-Fluorobiphenyl	80		30 - 130	08/22/16 12:47	08/25/16 08:52	1

Lab Sample ID: LCS 460-386082/2-A
Matrix: Water
Analysis Batch: 386667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386082

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	80.0	25.5		ug/L		32	20 - 160
2-Chlorophenol	80.0	66.3		ug/L		83	70 - 130
2-Methylphenol	80.0	50.6	*	ug/L		63	70 - 130
4-Methylphenol	80.0	47.5		ug/L		59	20 - 160
2-Nitrophenol	80.0	77.4		ug/L		97	70 - 130
2,4-Dimethylphenol	80.0	71.6		ug/L		90	70 - 130
2,4-Dichlorophenol	80.0	76.6		ug/L		96	70 - 130
4-Chloro-3-methylphenol	80.0	77.6		ug/L		97	20 - 160
2,4,6-Trichlorophenol	80.0	80.2		ug/L		100	70 - 130
2,4,5-Trichlorophenol	80.0	78.8		ug/L		99	20 - 160
2,4-Dinitrotoluene	80.0	92.6		ug/L		116	70 - 130
4-Nitrophenol	160	50.2		ug/L		31	20 - 160
4,6-Dinitro-2-methylphenol	160	149		ug/L		93	20 - 160
Pentachlorophenol	160	177		ug/L		111	20 - 160
Bis(2-chloroethyl)ether	80.0	65.7		ug/L		82	70 - 130
N-Nitrosodi-n-propylamine	80.0	81.6		ug/L		102	70 - 130
Hexachloroethane	80.0	71.3		ug/L		89	20 - 160
Nitrobenzene	80.0	85.3		ug/L		107	70 - 130
Isophorone	80.0	72.0		ug/L		90	70 - 130
Naphthalene	80.0	70.5		ug/L		88	70 - 130
4-Chloroaniline	80.0	81.8		ug/L		102	20 - 160
Hexachlorobutadiene	80.0	68.8		ug/L		86	70 - 130
2-Methylnaphthalene	80.0	75.8		ug/L		95	70 - 130
Hexachlorocyclopentadiene	80.0	64.0		ug/L		80	20 - 160
2-Chloronaphthalene	80.0	78.6		ug/L		98	70 - 130
2-Nitroaniline	80.0	77.6		ug/L		97	20 - 160
Dimethyl phthalate	80.0	82.3		ug/L		103	70 - 130
Acenaphthylene	80.0	83.3		ug/L		104	70 - 130
2,6-Dinitrotoluene	80.0	84.7		ug/L		106	70 - 130
3-Nitroaniline	80.0	73.4		ug/L		92	20 - 160
Acenaphthene	80.0	77.7		ug/L		97	70 - 130
Dibenzofuran	80.0	80.5		ug/L		101	70 - 130
2,4-Dinitrophenol	160	151		ug/L		95	20 - 160
Diethyl phthalate	80.0	81.4		ug/L		102	70 - 130
4-Chlorophenyl phenyl ether	80.0	73.9		ug/L		92	70 - 130
Fluorene	80.0	82.8		ug/L		103	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-386082/2-A
Matrix: Water
Analysis Batch: 386667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386082

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Nitroaniline	80.0	75.5		ug/L		94	20 - 160
N-Nitrosodiphenylamine	80.0	78.6		ug/L		98	70 - 130
4-Bromophenyl phenyl ether	80.0	76.7		ug/L		96	70 - 130
Hexachlorobenzene	80.0	81.7		ug/L		102	70 - 130
Phenanthrene	80.0	82.6		ug/L		103	70 - 130
Anthracene	80.0	81.3		ug/L		102	70 - 130
Carbazole	80.0	85.0		ug/L		106	70 - 130
Di-n-butyl phthalate	80.0	87.3		ug/L		109	70 - 130
Fluoranthene	80.0	87.3		ug/L		109	70 - 130
Pyrene	80.0	77.2		ug/L		97	70 - 130
Butyl benzyl phthalate	80.0	82.1		ug/L		103	70 - 130
Benzo[a]anthracene	80.0	79.8		ug/L		100	70 - 130
Chrysene	80.0	82.3		ug/L		103	70 - 130
Bis(2-ethylhexyl) phthalate	80.0	81.1		ug/L		101	70 - 130
Di-n-octyl phthalate	80.0	89.7		ug/L		112	70 - 130
Benzo[b]fluoranthene	80.0	79.6		ug/L		99	70 - 130
Benzo[k]fluoranthene	80.0	86.3		ug/L		108	70 - 130
Benzo[a]pyrene	80.0	83.6		ug/L		104	70 - 130
Indeno[1,2,3-cd]pyrene	80.0	84.8		ug/L		106	70 - 130
Dibenz(a,h)anthracene	80.0	89.2		ug/L		111	70 - 130
Benzo[g,h,i]perylene	80.0	81.7		ug/L		102	70 - 130
1,1'-Biphenyl	80.0	85.3		ug/L		107	70 - 130
Acetophenone	80.0	81.2		ug/L		101	70 - 130
2,2'-oxybis[1-chloropropane]	80.0	82.1		ug/L		103	70 - 130
1,2,4,5-Tetrachlorobenzene	80.0	73.2		ug/L		91	70 - 130
2,3,4,6-Tetrachlorophenol	80.0	81.2		ug/L		101	70 - 130
3,3'-Dichlorobenzidine	80.0	80.0		ug/L		100	70 - 130
Bis(2-chloroethoxy)methane	80.0	82.8		ug/L		104	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*95*		*30 - 130*
Phenol-d5 (Surr)	*29*		*15 - 110*
Terphenyl-d14 (Surr)	*89*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*97*		*15 - 110*
2-Fluorophenol (Surr)	*40*		*15 - 110*
2-Fluorobiphenyl	*94*		*30 - 130*

Lab Sample ID: LCS 460-386082/4-A
Matrix: Water
Analysis Batch: 386667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386082

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzaldehyde	160	155		ug/L		97	20 - 160
Caprolactam	160	37.8		ug/L		24	20 - 160
Atrazine	160	146		ug/L		91	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-386082/4-A
Matrix: Water
Analysis Batch: 386667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386082

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	85		30 - 130
Phenol-d5 (Surr)	24		15 - 110
Terphenyl-d14 (Surr)	93		30 - 130
2,4,6-Tribromophenol (Surr)	88		15 - 110
2-Fluorophenol (Surr)	47		15 - 110
2-Fluorobiphenyl	80		30 - 130

Lab Sample ID: LCSD 460-386082/3-A
Matrix: Water
Analysis Batch: 386667

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 386082

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol			80.0	29.4		ug/L		37	20 - 160	14	20
2-Chlorophenol			80.0	71.1		ug/L		89	70 - 130	7	20
2-Methylphenol			80.0	56.7		ug/L		71	70 - 130	11	20
4-Methylphenol			80.0	54.2		ug/L		68	20 - 160	13	20
2-Nitrophenol			80.0	78.9		ug/L		99	70 - 130	2	20
2,4-Dimethylphenol			80.0	76.1		ug/L		95	70 - 130	6	20
2,4-Dichlorophenol			80.0	71.8		ug/L		90	70 - 130	7	20
4-Chloro-3-methylphenol			80.0	76.1		ug/L		95	20 - 160	2	20
2,4,6-Trichlorophenol			80.0	72.9		ug/L		91	70 - 130	10	20
2,4,5-Trichlorophenol			80.0	72.9		ug/L		91	20 - 160	8	20
2,4-Dinitrotoluene			80.0	82.8		ug/L		103	70 - 130	11	20
4-Nitrophenol			160	50.7		ug/L		32	20 - 160	1	20
4,6-Dinitro-2-methylphenol			160	172		ug/L		107	20 - 160	14	20
Pentachlorophenol			160	180		ug/L		113	20 - 160	2	20
Bis(2-chloroethyl)ether			80.0	69.6		ug/L		87	70 - 130	6	20
N-Nitrosodi-n-propylamine			80.0	88.6		ug/L		111	70 - 130	8	20
Hexachloroethane			80.0	75.1		ug/L		94	20 - 160	5	20
Nitrobenzene			80.0	84.1		ug/L		105	70 - 130	1	20
Isophorone			80.0	74.5		ug/L		93	70 - 130	3	20
Naphthalene			80.0	78.5		ug/L		98	70 - 130	11	20
4-Chloroaniline			80.0	75.2		ug/L		94	20 - 160	8	20
Hexachlorobutadiene			80.0	73.6		ug/L		92	70 - 130	7	20
2-Methylnaphthalene			80.0	82.2		ug/L		103	70 - 130	8	20
Hexachlorocyclopentadiene			80.0	56.7		ug/L		71	20 - 160	12	20
2-Chloronaphthalene			80.0	76.3		ug/L		95	70 - 130	3	20
2-Nitroaniline			80.0	82.2		ug/L		103	20 - 160	6	20
Dimethyl phthalate			80.0	85.9		ug/L		107	70 - 130	4	20
Acenaphthylene			80.0	81.1		ug/L		101	70 - 130	3	20
2,6-Dinitrotoluene			80.0	79.4		ug/L		99	70 - 130	6	20
3-Nitroaniline			80.0	76.7		ug/L		96	20 - 160	4	20
Acenaphthene			80.0	74.6		ug/L		93	70 - 130	4	20
Dibenzofuran			80.0	79.3		ug/L		99	70 - 130	2	20
2,4-Dinitrophenol			160	147		ug/L		92	20 - 160	3	20
Diethyl phthalate			80.0	80.8		ug/L		101	70 - 130	1	20
4-Chlorophenyl phenyl ether			80.0	80.9		ug/L		101	70 - 130	9	20
Fluorene			80.0	85.8		ug/L		107	70 - 130	4	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-386082/3-A
Matrix: Water
Analysis Batch: 386667

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 386082

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Nitroaniline			80.0	75.7		ug/L		95	20 - 160	0	20
N-Nitrosodiphenylamine			80.0	84.3		ug/L		105	70 - 130	7	20
4-Bromophenyl phenyl ether			80.0	85.4		ug/L		107	70 - 130	11	20
Hexachlorobenzene			80.0	83.6		ug/L		104	70 - 130	2	20
Phenanthrene			80.0	90.3		ug/L		113	70 - 130	9	20
Anthracene			80.0	87.8		ug/L		110	70 - 130	8	20
Carbazole			80.0	86.7		ug/L		108	70 - 130	2	20
Di-n-butyl phthalate			80.0	90.5		ug/L		113	70 - 130	4	20
Fluoranthene			80.0	89.4		ug/L		112	70 - 130	2	20
Pyrene			80.0	89.9		ug/L		112	70 - 130	15	20
Butyl benzyl phthalate			80.0	86.9		ug/L		109	70 - 130	6	20
Benzo[a]anthracene			80.0	89.8		ug/L		112	70 - 130	12	20
Chrysene			80.0	85.6		ug/L		107	70 - 130	4	20
Bis(2-ethylhexyl) phthalate			80.0	89.5		ug/L		112	70 - 130	10	20
Di-n-octyl phthalate			80.0	96.3		ug/L		120	70 - 130	7	20
Benzo[b]fluoranthene			80.0	86.8		ug/L		109	70 - 130	9	20
Benzo[k]fluoranthene			80.0	82.4		ug/L		103	70 - 130	5	20
Benzo[a]pyrene			80.0	83.1		ug/L		104	70 - 130	1	20
Indeno[1,2,3-cd]pyrene			80.0	81.9		ug/L		102	70 - 130	4	20
Dibenz(a,h)anthracene			80.0	87.0		ug/L		109	70 - 130	2	20
Benzo[g,h,i]perylene			80.0	80.6		ug/L		101	70 - 130	1	20
1,1'-Biphenyl			80.0	82.2		ug/L		103	70 - 130	4	20
Acetophenone			80.0	83.9		ug/L		105	70 - 130	3	20
2,2'-oxybis[1-chloropropane]			80.0	81.7		ug/L		102	70 - 130	0	20
1,2,4,5-Tetrachlorobenzene			80.0	71.8		ug/L		90	70 - 130	2	20
2,3,4,6-Tetrachlorophenol			80.0	81.5		ug/L		102	70 - 130	0	20
3,3'-Dichlorobenzidine			80.0	84.7		ug/L		106	70 - 130	6	20
Bis(2-chloroethoxy)methane			80.0	79.8		ug/L		100	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*98*		*30 - 130*
Phenol-d5 (Surr)	*29*		*15 - 110*
Terphenyl-d14 (Surr)	*98*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*102*		*15 - 110*
2-Fluorophenol (Surr)	*48*		*15 - 110*
2-Fluorobiphenyl	*93*		*30 - 130*

Lab Sample ID: LCSD 460-386082/5-A
Matrix: Water
Analysis Batch: 386667

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 386082

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzaldehyde			160	165		ug/L		103	20 - 160	6	20
Caprolactam			160	43.5		ug/L		27	20 - 160	14	20
Atrazine			160	162		ug/L		101	70 - 130	11	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-386082/5-A
Matrix: Water
Analysis Batch: 386667

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 386082

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*89*		*30 - 130*
Phenol-d5 (Surr)	*25*		*15 - 110*
Terphenyl-d14 (Surr)	*95*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*98*		*15 - 110*
2-Fluorophenol (Surr)	*51*		*15 - 110*
2-Fluorobiphenyl	*81*		*30 - 130*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 460-386082/1-A
Matrix: Water
Analysis Batch: 387205

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386082

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/22/16 12:47	08/27/16 17:13	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/22/16 12:47	08/27/16 17:13	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/22/16 12:47	08/27/16 17:13	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/22/16 12:47	08/27/16 17:13	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/22/16 12:47	08/27/16 17:13	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		08/22/16 12:47	08/27/16 17:13	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/22/16 12:47	08/27/16 17:13	1
N-Nitrosodimethylamine	0.051	U	0.20	0.051	ug/L		08/22/16 12:47	08/27/16 17:13	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/22/16 12:47	08/27/16 17:13	1

Lab Sample ID: LCS 460-386082/6-A
Matrix: Water
Analysis Batch: 387262

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386082

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.800	0.651		ug/L		81	70 - 130
Benzo[a]pyrene	0.800	0.700		ug/L		88	70 - 130
Benzo[b]fluoranthene	0.800	0.671		ug/L		84	70 - 130
Bis(2-chloroethyl)ether	0.800	0.860		ug/L		107	70 - 130
Dibenz(a,h)anthracene	0.800	0.677		ug/L		85	70 - 130
Hexachlorobenzene	0.800	0.664		ug/L		83	70 - 130
Indeno[1,2,3-cd]pyrene	0.800	0.656		ug/L		82	70 - 130
N-Nitrosodimethylamine	0.800	0.363		ug/L		45	20 - 160
Pentachlorophenol	1.60	0.535		ug/L		33	20 - 160

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-386385/1-A
Matrix: Water
Analysis Batch: 386462

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386385

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:07	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-386385/1-A
Matrix: Water
Analysis Batch: 386462

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386385

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 08:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*87*		*30 - 150*	*08/23/16 19:58*	*08/24/16 08:07*	*1*
Tetrachloro-m-xylene	*82*		*30 - 150*	*08/23/16 19:58*	*08/24/16 08:07*	*1*
DCB Decachlorobiphenyl	*147*		*30 - 150*	*08/23/16 19:58*	*08/24/16 08:07*	*1*
DCB Decachlorobiphenyl	*136*		*30 - 150*	*08/23/16 19:58*	*08/24/16 08:07*	*1*

Lab Sample ID: LCS 460-386385/2-A
Matrix: Water
Analysis Batch: 386462

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386385

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	4.00	4.06		ug/L		102	40 - 140
PCB-1016	4.00	3.94		ug/L		99	40 - 140
PCB-1260	4.00	5.09		ug/L		127	40 - 140
PCB-1260	4.00	5.10		ug/L		127	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*73*		*30 - 150*
Tetrachloro-m-xylene	*73*		*30 - 150*
DCB Decachlorobiphenyl	*113*		*30 - 150*
DCB Decachlorobiphenyl	*112*		*30 - 150*

Lab Sample ID: 460-118898-J-4-A MS
Matrix: Water
Analysis Batch: 386462

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 386385

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.098	U	4.00	3.79		ug/L		95	40 - 140
PCB-1016	0.098	U	4.00	3.83		ug/L		96	40 - 140
PCB-1260	0.084	U F1	4.00	5.40		ug/L		135	40 - 140
PCB-1260	0.084	U F1	4.00	5.40		ug/L		135	40 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*62*		*30 - 150*
Tetrachloro-m-xylene	*63*		*30 - 150*
DCB Decachlorobiphenyl	*105*		*30 - 150*
DCB Decachlorobiphenyl	*104*		*30 - 150*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 460-118898-J-4-B MSD
Matrix: Water
Analysis Batch: 386462

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 386385

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	0.098	U	4.00	4.11		ug/L		103	40 - 140	8	20
PCB-1016	0.098	U	4.00	4.26		ug/L		107	40 - 140	11	20
PCB-1260	0.084	U F1	4.00	5.88	F1	ug/L		147	40 - 140	8	20
PCB-1260	0.084	U F1	4.00	5.89	F1	ug/L		147	40 - 140	9	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*76*		*30 - 150*
Tetrachloro-m-xylene	*74*		*30 - 150*
DCB Decachlorobiphenyl	*119*		*30 - 150*
DCB Decachlorobiphenyl	*114*		*30 - 150*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography - RA

Lab Sample ID: MB 460-386385/1-A
Matrix: Water
Analysis Batch: 386460

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386385

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total - RA	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 19:19	1
PCB-1016 - RA	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 19:19	1
PCB-1221 - RA	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 19:19	1
PCB-1232 - RA	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 19:19	1
PCB-1242 - RA	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 19:19	1
PCB-1248 - RA	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 19:19	1
PCB-1254 - RA	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 19:19	1
PCB-1260 - RA	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 19:19	1
PCB-1262 - RA	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 19:19	1
PCB-1268 - RA	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 19:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene - RA	*79*		*30 - 150*	*08/23/16 19:58*	*08/24/16 19:19*	*1*
Tetrachloro-m-xylene - RA	*82*		*30 - 150*	*08/23/16 19:58*	*08/24/16 19:19*	*1*
DCB Decachlorobiphenyl - RA	*133*		*30 - 150*	*08/23/16 19:58*	*08/24/16 19:19*	*1*
DCB Decachlorobiphenyl - RA	*143*		*30 - 150*	*08/23/16 19:58*	*08/24/16 19:19*	*1*

Lab Sample ID: LCS 460-386385/2-A
Matrix: Water
Analysis Batch: 386460

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386385

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016 - RA	4.00	3.90		ug/L		98	40 - 140
PCB-1016 - RA	4.00	4.06		ug/L		102	40 - 140
PCB-1260 - RA	4.00	4.65		ug/L		116	40 - 140
PCB-1260 - RA	4.00	5.05		ug/L		126	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene - RA	*69*		*30 - 150*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography - RA (Continued)

Lab Sample ID: LCS 460-386385/2-A
Matrix: Water
Analysis Batch: 386460

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386385

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene - RA	*72*		*30 - 150*
DCB Decachlorobiphenyl - RA	*106*		*30 - 150*
DCB Decachlorobiphenyl - RA	*114*		*30 - 150*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 460-385736/3
Matrix: Water
Analysis Batch: 385736

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			08/19/16 22:19	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/19/16 22:19	1

Lab Sample ID: LCS 460-385736/5
Matrix: Water
Analysis Batch: 385736

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.270		mg/L		105	90 - 110
Chloride	1.50	1.544		mg/L		103	90 - 110
Fluoride	1.00	1.066		mg/L		107	90 - 110
Sulfate	7.50	7.759		mg/L		103	90 - 110

Lab Sample ID: LCSD 460-385736/6
Matrix: Water
Analysis Batch: 385736

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	5.142		mg/L		103	90 - 110	2	15
Chloride	1.50	1.511		mg/L		101	90 - 110	2	15
Fluoride	1.00	1.032		mg/L		103	90 - 110	3	15
Sulfate	7.50	7.701		mg/L		103	90 - 110	1	15

Lab Sample ID: 460-118817-2 MS
Matrix: Water
Analysis Batch: 385736

Client Sample ID: OB-33-081716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.081	U	5.00	5.132		mg/L		103	90 - 110
Chloride	1.64		1.50	3.126		mg/L		99	90 - 110
Fluoride	0.12	F1	1.00	1.226		mg/L		110	90 - 110
Sulfate	12.6		7.50	20.82		mg/L		110	90 - 110

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 460-118817-2 MSD
Matrix: Water
Analysis Batch: 385736

Client Sample ID: OB-33-081716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.081	U	5.00	5.166		mg/L		103	90 - 110	1	15
Chloride	1.64		1.50	3.129		mg/L		99	90 - 110	0	15
Fluoride	0.12	F1	1.00	1.237	F1	mg/L		111	90 - 110	1	15
Sulfate	12.6		7.50	20.76		mg/L		109	90 - 110	0	15

Lab Sample ID: 460-118817-2 DU
Matrix: Water
Analysis Batch: 385736

Client Sample ID: OB-33-081716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	1.64		1.621		mg/L		1	15
Sulfate	12.6		12.55		mg/L		0.3	15

Lab Sample ID: MB 460-386293/3
Matrix: Water
Analysis Batch: 386293

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			08/23/16 04:47	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/23/16 04:47	1

Lab Sample ID: LCS 460-386293/5
Matrix: Water
Analysis Batch: 386293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.306		mg/L		106	90 - 110
Chloride	1.50	1.558		mg/L		104	90 - 110
Fluoride	1.00	1.100		mg/L		110	90 - 110
Sulfate	7.50	7.900		mg/L		105	90 - 110

Lab Sample ID: LCSD 460-386293/6
Matrix: Water
Analysis Batch: 386293

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	5.291		mg/L		106	90 - 110	0	15
Chloride	1.50	1.555		mg/L		104	90 - 110	0	15
Fluoride	1.00	1.075		mg/L		107	90 - 110	2	15
Sulfate	7.50	7.957		mg/L		106	90 - 110	1	15

Lab Sample ID: 460-118817-4 MS
Matrix: Water
Analysis Batch: 386293

Client Sample ID: OB-30B-081716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	1.62	U	100	96.85		mg/L		97	90 - 110
Chloride	39.6		30.0	71.68		mg/L		107	90 - 110
Fluoride	0.30	U	20.0	20.11		mg/L		101	90 - 110

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 460-118817-4 MS
Matrix: Water
Analysis Batch: 386293

Client Sample ID: OB-30B-081716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	32.7		150	170.2		mg/L		92	90 - 110

Lab Sample ID: 460-118817-4 MSD
Matrix: Water
Analysis Batch: 386293

Client Sample ID: OB-30B-081716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	1.62	U	100	98.20		mg/L		98	90 - 110	1	15
Chloride	39.6		30.0	72.54		mg/L		110	90 - 110	1	15
Fluoride	0.30	U	20.0	20.31		mg/L		102	90 - 110	1	15
Sulfate	32.7		150	173.9		mg/L		94	90 - 110	2	15

Lab Sample ID: 460-118817-4 DU
Matrix: Water
Analysis Batch: 386293

Client Sample ID: OB-30B-081716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	39.6		40.21		mg/L		1	15
Sulfate	32.7		33.28		mg/L		2	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: LCS 460-386959/2-A
Matrix: Water
Analysis Batch: 387282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386959

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	10.0	10.05		ug/L		101	80 - 120
Beryllium	5.00	5.03		ug/L		101	80 - 120
Potassium	500	495.5		ug/L		99	80 - 120

Lab Sample ID: LCS 460-386959/2-A ^2
Matrix: Water
Analysis Batch: 387044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386959

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	10.0	8.65		ug/L		86	80 - 120
Arsenic	20.0	19.37		ug/L		97	80 - 120
Cadmium	10.0	9.43		ug/L		94	80 - 120
Cobalt	10.0	9.46		ug/L		95	80 - 120
Chromium	20.0	19.17		ug/L		96	80 - 120
Copper	20.0	18.90		ug/L		95	80 - 120
Manganese	100	89.02		ug/L		89	80 - 120
Nickel	20.0	19.34		ug/L		97	80 - 120
Lead	10.0	9.30		ug/L		93	80 - 120
Antimony	10.0	8.93		ug/L		89	80 - 120
Selenium	20.0	18.69		ug/L		93	80 - 120
Vanadium	20.0	18.89		ug/L		94	80 - 120
Zinc	100	95.04		ug/L		95	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-386959/2-A ^2
Matrix: Water
Analysis Batch: 387044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386959

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	1000	962.6		ug/L		96	80 - 120
Sodium	1000	869.4		ug/L		87	80 - 120
Magnesium	1000	880.4		ug/L		88	80 - 120
Calcium	1000	1009		ug/L		101	80 - 120
Iron	1000	978.4		ug/L		98	80 - 120
Thallium	8.00	7.44		ug/L		93	80 - 120

Lab Sample ID: MB 460-387090/1-A ^2
Matrix: Water
Analysis Batch: 387280

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387090

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 18:53	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 20:30	08/27/16 18:53	2
Barium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 18:53	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 18:53	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 18:53	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 18:53	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 18:53	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 18:53	2
Manganese	3.0	U	8.0	3.0	ug/L		08/26/16 20:30	08/27/16 18:53	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 18:53	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 18:53	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 18:53	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 18:53	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 18:53	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 18:53	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 20:30	08/27/16 18:53	2
Sodium	87.6	U	200	87.6	ug/L		08/26/16 20:30	08/27/16 18:53	2
Magnesium	68.4	U	200	68.4	ug/L		08/26/16 20:30	08/27/16 18:53	2
Potassium	74.8	U	200	74.8	ug/L		08/26/16 20:30	08/27/16 18:53	2
Calcium	69.5	U	200	69.5	ug/L		08/26/16 20:30	08/27/16 18:53	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 20:30	08/27/16 18:53	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 18:53	2

Lab Sample ID: LCS 460-387090/2-A ^2
Matrix: Water
Analysis Batch: 387280

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387090

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	27.43		ug/L		110	80 - 120
Arsenic	50.0	49.68		ug/L		99	80 - 120
Barium	50.0	51.47		ug/L		103	80 - 120
Beryllium	25.0	22.60		ug/L		90	80 - 120
Cadmium	25.0	25.47		ug/L		102	80 - 120
Cobalt	25.0	26.63		ug/L		107	80 - 120
Chromium	50.0	53.06		ug/L		106	80 - 120
Copper	50.0	54.06		ug/L		108	80 - 120
Manganese	250	263.3		ug/L		105	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-387090/2-A ^2
Matrix: Water
Analysis Batch: 387280

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387090

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nickel	50.0	53.71		ug/L		107	80 - 120
Lead	25.0	25.69		ug/L		103	80 - 120
Antimony	25.0	25.57		ug/L		102	80 - 120
Selenium	50.0	48.09		ug/L		96	80 - 120
Vanadium	50.0	51.73		ug/L		103	80 - 120
Zinc	250	258.6		ug/L		103	80 - 120
Aluminum	2500	2481		ug/L		99	80 - 120
Sodium	2500	2622		ug/L		105	80 - 120
Magnesium	2500	2635		ug/L		105	80 - 120
Potassium	2500	2523		ug/L		101	80 - 120
Calcium	2500	2667		ug/L		107	80 - 120
Iron	2500	2593		ug/L		104	80 - 120
Thallium	20.0	20.42		ug/L		102	80 - 120

Lab Sample ID: 460-118898-G-4-D MS ^2
Matrix: Water
Analysis Batch: 387280

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387090

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.5	U	25.0	27.48		ug/L		110	75 - 125
Arsenic	0.71	U	50.0	46.02		ug/L		92	75 - 125
Barium	17.0		50.0	68.76		ug/L		104	75 - 125
Beryllium	0.29	U	25.0	23.48		ug/L		94	75 - 125
Cadmium	0.72	U	25.0	26.63		ug/L		107	75 - 125
Cobalt	9.5		25.0	36.55		ug/L		108	75 - 125
Chromium	1.5	U	50.0	54.33		ug/L		109	75 - 125
Copper	3.9	J	50.0	58.58		ug/L		109	75 - 125
Manganese	836		250	1110		ug/L		110	75 - 125
Nickel	2.2	J	50.0	56.87		ug/L		109	75 - 125
Lead	0.44	U	25.0	26.52		ug/L		106	75 - 125
Antimony	0.76	U	25.0	26.25		ug/L		105	75 - 125
Selenium	0.79	U	50.0	44.88		ug/L		90	75 - 125
Vanadium	1.4	U	50.0	53.40		ug/L		107	75 - 125
Zinc	6.5	U	250	263.2		ug/L		105	75 - 125
Aluminum	19.0	J	2500	2563		ug/L		102	75 - 125
Sodium	15600		2500	18500	4	ug/L		116	75 - 125
Magnesium	5250		2500	8032		ug/L		111	75 - 125
Potassium	1860		2500	4463		ug/L		104	75 - 125
Calcium	20300		2500	23320	4	ug/L		120	75 - 125
Iron	12100		2500	14830	4	ug/L		108	75 - 125
Thallium	0.31	U	20.0	21.10		ug/L		106	75 - 125

Lab Sample ID: 460-118898-A-4-B DU ^2
Matrix: Water
Analysis Batch: 387280

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 387090

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.5	U	1.5	U	ug/L		NC	20
Arsenic	0.71	U	0.71	U	ug/L		NC	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-118898-A-4-B DU ^2
Matrix: Water
Analysis Batch: 387280

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 387090

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Barium	17.0			16.90		ug/L				0.3	20
Beryllium	0.29	U		0.29	U	ug/L				NC	20
Cadmium	0.72	U		0.72	U	ug/L				NC	20
Cobalt	9.5			9.53		ug/L				0.8	20
Chromium	1.5	U		1.5	U	ug/L				NC	20
Copper	3.9	J		3.79	J	ug/L				2	20
Manganese	836			834.8		ug/L				0.1	20
Nickel	2.2	J		2.18	J	ug/L				0.8	20
Lead	0.44	U		0.44	U	ug/L				NC	20
Antimony	0.76	U		0.76	U	ug/L				NC	20
Selenium	0.79	U		0.79	U	ug/L				NC	20
Vanadium	1.4	U		1.4	U	ug/L				NC	20
Zinc	6.5	U		14.79	J	ug/L				NC	20
Aluminum	19.0	J		14.98	J F5	ug/L				23	20
Sodium	15600			15570		ug/L				0.2	20
Magnesium	5250			5241		ug/L				0.1	20
Potassium	1860			1854		ug/L				0.05	20
Calcium	20300			20470		ug/L				0.8	20
Iron	12100			12130		ug/L				0	20
Thallium	0.31	U		0.31	U	ug/L				NC	20

Lab Sample ID: MB 460-386957/1-B
Matrix: Water
Analysis Batch: 387282

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 386959

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.73	U	2.0	0.73	ug/L		08/26/16 10:28	08/26/16 20:59	1
Beryllium	0.15	U	0.40	0.15	ug/L		08/26/16 10:28	08/26/16 20:59	1
Potassium	37.4	U	100	37.4	ug/L		08/26/16 10:28	08/26/16 20:59	1

Lab Sample ID: MB 460-386957/1-B ^2
Matrix: Water
Analysis Batch: 387044

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 386959

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 10:28	08/26/16 13:17	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 10:28	08/26/16 13:17	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 10:28	08/26/16 13:17	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 13:17	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 10:28	08/26/16 13:17	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 13:17	2
Manganese	3.0	U	8.0	3.0	ug/L		08/26/16 10:28	08/26/16 13:17	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 10:28	08/26/16 13:17	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 10:28	08/26/16 13:17	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 10:28	08/26/16 13:17	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 10:28	08/26/16 13:17	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 10:28	08/26/16 13:17	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 10:28	08/26/16 13:17	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 10:28	08/26/16 13:17	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-386957/1-B ^2
Matrix: Water
Analysis Batch: 387044

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 386959

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	87.6	U	200	87.6	ug/L		08/26/16 10:28	08/26/16 13:17	2
Magnesium	68.4	U	200	68.4	ug/L		08/26/16 10:28	08/26/16 13:17	2
Calcium	69.5	U	200	69.5	ug/L		08/26/16 10:28	08/26/16 13:17	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 10:28	08/26/16 13:17	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 10:28	08/26/16 13:17	2

Lab Sample ID: 460-118817-1 MS
Matrix: Water
Analysis Batch: 387044

Client Sample ID: OB-30C-081716
Prep Type: Dissolved
Prep Batch: 386959

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.5	U	10.0	9.49		ug/L		95	75 - 125
Arsenic	0.88	J	20.0	20.90		ug/L		100	75 - 125
Cadmium	0.72	U	10.0	9.80		ug/L		98	75 - 125
Cobalt	1.5	U	10.0	9.62		ug/L		96	75 - 125
Chromium	1.5	U	20.0	18.82		ug/L		94	75 - 125
Copper	1.6	U	20.0	19.30		ug/L		97	75 - 125
Manganese	56.2		100	145.8		ug/L		90	75 - 125
Nickel	1.6	U	20.0	19.20		ug/L		96	75 - 125
Lead	0.44	U	10.0	9.56		ug/L		96	75 - 125
Antimony	0.76	U	10.0	9.35		ug/L		94	75 - 125
Selenium	2.6	J	20.0	22.36		ug/L		99	75 - 125
Vanadium	4.3		20.0	23.84		ug/L		98	75 - 125
Zinc	6.5	U	100	97.54		ug/L		98	75 - 125
Aluminum	13.5	U	1000	973.2		ug/L		97	75 - 125
Sodium	9190		1000	10250	4	ug/L		106	75 - 125
Magnesium	18200		1000	19210	4	ug/L		106	75 - 125
Calcium	39200		1000	40220	4	ug/L		106	75 - 125
Iron	49.1	U	1000	996.2		ug/L		100	75 - 125
Thallium	0.31	U	8.00	7.69		ug/L		96	75 - 125

Lab Sample ID: 460-118817-1 MS
Matrix: Water
Analysis Batch: 387282

Client Sample ID: OB-30C-081716
Prep Type: Dissolved
Prep Batch: 386959

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	14.1		20.0	33.39		ug/L		96	75 - 125
Beryllium	0.29	U	10.0	9.59		ug/L		96	75 - 125
Potassium	5260		1000	6158	4	ug/L		90	75 - 125

Lab Sample ID: 460-118817-1 DU
Matrix: Water
Analysis Batch: 387044

Client Sample ID: OB-30C-081716
Prep Type: Dissolved
Prep Batch: 386959

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.5	U	1.5	U	ug/L		NC	20
Arsenic	0.88	J	0.806	J	ug/L		9	20
Cadmium	0.72	U	0.72	U	ug/L		NC	20
Cobalt	1.5	U	1.5	U	ug/L		NC	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-118817-1 DU
Matrix: Water
Analysis Batch: 387044

Client Sample ID: OB-30C-081716
Prep Type: Dissolved
Prep Batch: 386959

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium	1.5	U	1.5	U	ug/L		NC	20
Copper	1.6	U	1.6	U	ug/L		NC	20
Manganese	56.2		56.80		ug/L		1	20
Nickel	1.6	U	1.6	U	ug/L		NC	20
Lead	0.44	U	0.44	U	ug/L		NC	20
Antimony	0.76	U	0.76	U	ug/L		NC	20
Selenium	2.6	J	2.53	J	ug/L		2	20
Vanadium	4.3		4.51		ug/L		4	20
Zinc	6.5	U	6.5	U	ug/L		NC	20
Aluminum	13.5	U	13.5	U	ug/L		NC	20
Sodium	9190		9330		ug/L		2	20
Magnesium	18200		18440		ug/L		2	20
Calcium	39200		39340		ug/L		0.5	20
Iron	49.1	U	49.1	U	ug/L		NC	20
Thallium	0.31	U	0.31	U	ug/L		NC	20

Lab Sample ID: 460-118817-1 DU
Matrix: Water
Analysis Batch: 387282

Client Sample ID: OB-30C-081716
Prep Type: Dissolved
Prep Batch: 386959

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Barium	14.1		14.47		ug/L		2	20
Beryllium	0.29	U	0.29	U	ug/L		NC	20
Potassium	5260		5227		ug/L		0.7	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-386298/1-A
Matrix: Water
Analysis Batch: 386345

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386298

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/23/16 12:05	08/23/16 16:33	1

Lab Sample ID: LCS 460-386298/2-A
Matrix: Water
Analysis Batch: 386345

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386298

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.856		ug/L		86	80 - 120

Lab Sample ID: 460-118817-3 MS
Matrix: Water
Analysis Batch: 386345

Client Sample ID: OB-12-081716
Prep Type: Total/NA
Prep Batch: 386298

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.14	U	1.00	0.891		ug/L		89	75 - 125

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 460-118817-3 DU
Matrix: Water
Analysis Batch: 386345

Client Sample ID: OB-12-081716
Prep Type: Total/NA
Prep Batch: 386298

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Mercury	0.14	U		0.14	U	ug/L				NC	20

Lab Sample ID: LCS 460-386977/2-A
Matrix: Water
Analysis Batch: 387030

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386977

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			1.00	0.983		ug/L		98	80 - 120		

Lab Sample ID: MB 460-386975/1-B
Matrix: Water
Analysis Batch: 387030

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 386977

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 14:35	1

Lab Sample ID: 460-118898-I-4-B MS
Matrix: Water
Analysis Batch: 387030

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 386977

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.14	U	1.00	0.957		ug/L		96	75 - 125		

Lab Sample ID: 460-118898-B-4-B DU
Matrix: Water
Analysis Batch: 387030

Client Sample ID: Duplicate
Prep Type: Dissolved
Prep Batch: 386977

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Mercury	0.14	U		0.14	U	ug/L				NC	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 460-387409/1-A
Matrix: Water
Analysis Batch: 387474

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387409

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:29	1

Lab Sample ID: HLCS 460-387409/3-A
Matrix: Water
Analysis Batch: 387474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387409

Analyte			Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			0.200	0.186		mg/L		93	80 - 120		

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: LLCS 460-387409/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387474 — **Prep Batch: 387409**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0952		mg/L		95	80 - 120

Lab Sample ID: 460-118898-F-13-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387474 — **Prep Batch: 387409**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0020	U	0.200	0.165		mg/L		83	75 - 125

Lab Sample ID: 460-118898-F-13-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387474 — **Prep Batch: 387409**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0020	U	0.200	0.170		mg/L		85	75 - 125	3	20

Lab Sample ID: MB 460-387699/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387726 — **Prep Batch: 387699**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/30/16 15:47	08/30/16 18:39	1

Lab Sample ID: HLCS 460-387699/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387726 — **Prep Batch: 387699**

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.200	0.193		mg/L		97	80 - 120

Lab Sample ID: LLCS 460-387699/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387726 — **Prep Batch: 387699**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0964		mg/L		96	80 - 120

Lab Sample ID: 460-118817-4 MS — **Client Sample ID: OB-30B-081716**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387726 — **Prep Batch: 387699**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0020	U	0.200	0.180		mg/L		90	75 - 125

Lab Sample ID: 460-118817-4 MSD — **Client Sample ID: OB-30B-081716**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387726 — **Prep Batch: 387699**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0020	U	0.200	0.169		mg/L		85	75 - 125	6	20

Lab Sample ID: 460-118817-6 MS
Matrix: Water
Analysis Batch: 387726

Client Sample ID: OB-2-081716
Prep Type: Total/NA
Prep Batch: 387699

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0020	U	0.200	0.186		mg/L		93	75 - 125

Lab Sample ID: 460-118817-6 MSD
Matrix: Water
Analysis Batch: 387726

Client Sample ID: OB-2-081716
Prep Type: Total/NA
Prep Batch: 387699

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0020	U	0.200	0.195		mg/L		98	75 - 125	5	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 460-386996/1
Matrix: Water
Analysis Batch: 386996

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			08/26/16 10:00	1
Alkalinity	5.0	U	5.0	5.0	mg/L			08/26/16 10:00	1

Lab Sample ID: LCSSRM 460-386996/2
Matrix: Water
Analysis Batch: 386996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	44.1	44.22		mg/L		100.3	90.5 - 107.9

Lab Sample ID: 460-118817-1 DU
Matrix: Water
Analysis Batch: 386996

Client Sample ID: OB-30C-081716
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	125		124.6		mg/L		0	17
Alkalinity	125		124.6		mg/L		0	17

Lab Sample ID: MB 460-387653/1
Matrix: Water
Analysis Batch: 387653

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			08/30/16 10:00	1
Alkalinity	5.0	U	5.0	5.0	mg/L			08/30/16 10:00	1

Lab Sample ID: LCSSRM 460-387653/2
Matrix: Water
Analysis Batch: 387653

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	44.1	44.22		mg/L		100.3	90.5 - 107.9

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 460-118898-E-4 DU
Matrix: Water
Analysis Batch: 387653

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	74.4			74.37		mg/L				0	17
Alkalinity	74.4			74.37		mg/L				0	17

GC/MS VOA

Analysis Batch: 386113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Total/NA	Water	8260C	
460-118817-2	OB-33-081716	Total/NA	Water	8260C	
460-118817-3	OB-12-081716	Total/NA	Water	8260C	
460-118817-4	OB-30B-081716	Total/NA	Water	8260C	
460-118817-5	OB-15B-081716	Total/NA	Water	8260C	
460-118817-6	OB-2-081716	Total/NA	Water	8260C	
460-118817-7	OB-32-081716	Total/NA	Water	8260C	
460-118817-8	OB-11R-081716	Total/NA	Water	8260C	
460-118817-9	OB-31-081716	Total/NA	Water	8260C	
460-118817-10	SC-2-081716	Total/NA	Water	8260C	
460-118817-11	OB-27-081716	Total/NA	Water	8260C	
460-118817-14	TB-02-081716	Total/NA	Water	8260C	
MB 460-386113/7	Method Blank	Total/NA	Water	8260C	
LCS 460-386113/3	Lab Control Sample	Total/NA	Water	8260C	
460-118817-1 MS	OB-30C-081716	Total/NA	Water	8260C	
460-118817-1 MSD	OB-30C-081716	Total/NA	Water	8260C	

Analysis Batch: 386206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-12	OB-19-081716	Total/NA	Water	8260C	
460-118817-13	OB-4-081716	Total/NA	Water	8260C	
MB 460-386206/7	Method Blank	Total/NA	Water	8260C	
LCS 460-386206/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-386206/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 386244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Total/NA	Water	8260C SIM	
460-118817-2	OB-33-081716	Total/NA	Water	8260C SIM	
460-118817-3	OB-12-081716	Total/NA	Water	8260C SIM	
460-118817-4	OB-30B-081716	Total/NA	Water	8260C SIM	
MB 460-386244/8	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-386244/4	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 460-386244/5	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 386381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-5	OB-15B-081716	Total/NA	Water	8260C SIM	
460-118817-6	OB-2-081716	Total/NA	Water	8260C SIM	
460-118817-7	OB-32-081716	Total/NA	Water	8260C SIM	
460-118817-8	OB-11R-081716	Total/NA	Water	8260C SIM	
460-118817-9	OB-31-081716	Total/NA	Water	8260C SIM	
460-118817-10	SC-2-081716	Total/NA	Water	8260C SIM	
460-118817-11	OB-27-081716	Total/NA	Water	8260C SIM	
460-118817-12	OB-19-081716	Total/NA	Water	8260C SIM	
460-118817-13	OB-4-081716	Total/NA	Water	8260C SIM	
460-118817-14	TB-02-081716	Total/NA	Water	8260C SIM	
MB 460-386381/8	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-386381/4	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 460-386381/5	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

GC/MS Semi VOA

Prep Batch: 386082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Total/NA	Water	3510C	
460-118817-2	OB-33-081716	Total/NA	Water	3510C	
460-118817-3	OB-12-081716	Total/NA	Water	3510C	
460-118817-4	OB-30B-081716	Total/NA	Water	3510C	
460-118817-5	OB-15B-081716	Total/NA	Water	3510C	
460-118817-6	OB-2-081716	Total/NA	Water	3510C	
460-118817-7	OB-32-081716	Total/NA	Water	3510C	
460-118817-8	OB-11R-081716	Total/NA	Water	3510C	
460-118817-9	OB-31-081716	Total/NA	Water	3510C	
460-118817-10	SC-2-081716	Total/NA	Water	3510C	
460-118817-11	OB-27-081716	Total/NA	Water	3510C	
460-118817-12	OB-19-081716	Total/NA	Water	3510C	
460-118817-13	OB-4-081716	Total/NA	Water	3510C	
MB 460-386082/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-386082/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-386082/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-386082/6-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-386082/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 460-386082/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 386667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-386082/1-A	Method Blank	Total/NA	Water	8270D	386082
LCS 460-386082/2-A	Lab Control Sample	Total/NA	Water	8270D	386082
LCS 460-386082/4-A	Lab Control Sample	Total/NA	Water	8270D	386082
LCSD 460-386082/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	386082
LCSD 460-386082/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	386082

Analysis Batch: 386897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Total/NA	Water	8270D	386082
460-118817-2	OB-33-081716	Total/NA	Water	8270D	386082
460-118817-3	OB-12-081716	Total/NA	Water	8270D	386082

Analysis Batch: 387205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-386082/1-A	Method Blank	Total/NA	Water	8270D SIM	386082

Analysis Batch: 387262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Total/NA	Water	8270D SIM	386082
460-118817-2	OB-33-081716	Total/NA	Water	8270D SIM	386082
460-118817-3	OB-12-081716	Total/NA	Water	8270D SIM	386082
460-118817-4	OB-30B-081716	Total/NA	Water	8270D SIM	386082
460-118817-5	OB-15B-081716	Total/NA	Water	8270D SIM	386082
460-118817-6	OB-2-081716	Total/NA	Water	8270D SIM	386082
460-118817-7	OB-32-081716	Total/NA	Water	8270D SIM	386082
460-118817-8	OB-11R-081716	Total/NA	Water	8270D SIM	386082
LCS 460-386082/6-A	Lab Control Sample	Total/NA	Water	8270D SIM	386082

GC/MS Semi VOA (Continued)

Analysis Batch: 387329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-4	OB-30B-081716	Total/NA	Water	8270D	386082
460-118817-5	OB-15B-081716	Total/NA	Water	8270D	386082
460-118817-6	OB-2-081716	Total/NA	Water	8270D	386082
460-118817-7	OB-32-081716	Total/NA	Water	8270D	386082
460-118817-8	OB-11R-081716	Total/NA	Water	8270D	386082
460-118817-9	OB-31-081716	Total/NA	Water	8270D	386082
460-118817-10	SC-2-081716	Total/NA	Water	8270D	386082
460-118817-11	OB-27-081716	Total/NA	Water	8270D	386082
460-118817-12	OB-19-081716	Total/NA	Water	8270D	386082
460-118817-13	OB-4-081716	Total/NA	Water	8270D	386082

Analysis Batch: 387339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-9	OB-31-081716	Total/NA	Water	8270D SIM	386082
460-118817-10	SC-2-081716	Total/NA	Water	8270D SIM	386082
460-118817-11	OB-27-081716	Total/NA	Water	8270D SIM	386082
460-118817-12	OB-19-081716	Total/NA	Water	8270D SIM	386082
460-118817-13	OB-4-081716	Total/NA	Water	8270D SIM	386082

GC Semi VOA

Prep Batch: 386385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Total/NA	Water	3510C	
460-118817-2	OB-33-081716	Total/NA	Water	3510C	
460-118817-3	OB-12-081716	Total/NA	Water	3510C	
460-118817-4	OB-30B-081716	Total/NA	Water	3510C	
460-118817-5	OB-15B-081716	Total/NA	Water	3510C	
460-118817-6	OB-2-081716	Total/NA	Water	3510C	
460-118817-7	OB-32-081716	Total/NA	Water	3510C	
460-118817-8	OB-11R-081716	Total/NA	Water	3510C	
460-118817-9	OB-31-081716	Total/NA	Water	3510C	
460-118817-10	SC-2-081716	Total/NA	Water	3510C	
460-118817-11	OB-27-081716	Total/NA	Water	3510C	
460-118817-12	OB-19-081716	Total/NA	Water	3510C	
460-118817-13	OB-4-081716	Total/NA	Water	3510C	
MB 460-386385/1-A - RA	Method Blank	Total/NA	Water	3510C	
MB 460-386385/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-386385/2-A - RA	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-386385/2-A	Lab Control Sample	Total/NA	Water	3510C	
460-118898-J-4-A MS	Matrix Spike	Total/NA	Water	3510C	
460-118898-J-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 386460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-13	OB-4-081716	Total/NA	Water	8082A	386385
MB 460-386385/1-A - RA	Method Blank	Total/NA	Water	8082A	386385
LCS 460-386385/2-A - RA	Lab Control Sample	Total/NA	Water	8082A	386385

GC Semi VOA (Continued)

Analysis Batch: 386462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Total/NA	Water	8082A	386385
460-118817-2	OB-33-081716	Total/NA	Water	8082A	386385
460-118817-3	OB-12-081716	Total/NA	Water	8082A	386385
460-118817-4	OB-30B-081716	Total/NA	Water	8082A	386385
460-118817-5	OB-15B-081716	Total/NA	Water	8082A	386385
460-118817-6	OB-2-081716	Total/NA	Water	8082A	386385
460-118817-7	OB-32-081716	Total/NA	Water	8082A	386385
460-118817-8	OB-11R-081716	Total/NA	Water	8082A	386385
460-118817-9	OB-31-081716	Total/NA	Water	8082A	386385
460-118817-10	SC-2-081716	Total/NA	Water	8082A	386385
460-118817-11	OB-27-081716	Total/NA	Water	8082A	386385
460-118817-12	OB-19-081716	Total/NA	Water	8082A	386385
MB 460-386385/1-A	Method Blank	Total/NA	Water	8082A	386385
LCS 460-386385/2-A	Lab Control Sample	Total/NA	Water	8082A	386385
460-118898-J-4-A MS	Matrix Spike	Total/NA	Water	8082A	386385
460-118898-J-4-B MSD	Matrix Spike Duplicate	Total/NA	Water	8082A	386385

HPLC/IC

Analysis Batch: 385736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1 - DL	OB-30C-081716	Total/NA	Water	9056A	
460-118817-2	OB-33-081716	Total/NA	Water	9056A	
460-118817-3	OB-12-081716	Total/NA	Water	9056A	
460-118817-5	OB-15B-081716	Total/NA	Water	9056A	
460-118817-6	OB-2-081716	Total/NA	Water	9056A	
460-118817-7	OB-32-081716	Total/NA	Water	9056A	
460-118817-8	OB-11R-081716	Total/NA	Water	9056A	
460-118817-9	OB-31-081716	Total/NA	Water	9056A	
460-118817-11	OB-27-081716	Total/NA	Water	9056A	
460-118817-12	OB-19-081716	Total/NA	Water	9056A	
460-118817-13	OB-4-081716	Total/NA	Water	9056A	
MB 460-385736/3	Method Blank	Total/NA	Water	9056A	
LCS 460-385736/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-385736/6	Lab Control Sample Dup	Total/NA	Water	9056A	
460-118817-2 MS	OB-33-081716	Total/NA	Water	9056A	
460-118817-2 MSD	OB-33-081716	Total/NA	Water	9056A	
460-118817-2 DU	OB-33-081716	Total/NA	Water	9056A	

Analysis Batch: 386293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-4	OB-30B-081716	Total/NA	Water	9056A	
460-118817-7	OB-32-081716	Total/NA	Water	9056A	
460-118817-8	OB-11R-081716	Total/NA	Water	9056A	
460-118817-9	OB-31-081716	Total/NA	Water	9056A	
460-118817-10	SC-2-081716	Total/NA	Water	9056A	
460-118817-11	OB-27-081716	Total/NA	Water	9056A	
460-118817-12	OB-19-081716	Total/NA	Water	9056A	
460-118817-13	OB-4-081716	Total/NA	Water	9056A	
MB 460-386293/3	Method Blank	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 386293 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-386293/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-386293/6	Lab Control Sample Dup	Total/NA	Water	9056A	
460-118817-4 MS	OB-30B-081716	Total/NA	Water	9056A	
460-118817-4 MSD	OB-30B-081716	Total/NA	Water	9056A	
460-118817-4 DU	OB-30B-081716	Total/NA	Water	9056A	

Metals

Prep Batch: 386298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Total/NA	Water	7470A	
460-118817-2	OB-33-081716	Total/NA	Water	7470A	
460-118817-3	OB-12-081716	Total/NA	Water	7470A	
460-118817-4	OB-30B-081716	Total/NA	Water	7470A	
460-118817-5	OB-15B-081716	Total/NA	Water	7470A	
460-118817-6	OB-2-081716	Total/NA	Water	7470A	
460-118817-7	OB-32-081716	Total/NA	Water	7470A	
460-118817-8	OB-11R-081716	Total/NA	Water	7470A	
460-118817-9	OB-31-081716	Total/NA	Water	7470A	
460-118817-10	SC-2-081716	Total/NA	Water	7470A	
460-118817-11	OB-27-081716	Total/NA	Water	7470A	
460-118817-12	OB-19-081716	Total/NA	Water	7470A	
460-118817-13	OB-4-081716	Total/NA	Water	7470A	
MB 460-386298/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-386298/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-118817-3 MS	OB-12-081716	Total/NA	Water	7470A	
460-118817-3 DU	OB-12-081716	Total/NA	Water	7470A	

Analysis Batch: 386345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Total/NA	Water	7470A	386298
460-118817-2	OB-33-081716	Total/NA	Water	7470A	386298
460-118817-3	OB-12-081716	Total/NA	Water	7470A	386298
460-118817-4	OB-30B-081716	Total/NA	Water	7470A	386298
460-118817-5	OB-15B-081716	Total/NA	Water	7470A	386298
460-118817-6	OB-2-081716	Total/NA	Water	7470A	386298
460-118817-7	OB-32-081716	Total/NA	Water	7470A	386298
460-118817-8	OB-11R-081716	Total/NA	Water	7470A	386298
460-118817-9	OB-31-081716	Total/NA	Water	7470A	386298
460-118817-10	SC-2-081716	Total/NA	Water	7470A	386298
460-118817-11	OB-27-081716	Total/NA	Water	7470A	386298
460-118817-12	OB-19-081716	Total/NA	Water	7470A	386298
460-118817-13	OB-4-081716	Total/NA	Water	7470A	386298
MB 460-386298/1-A	Method Blank	Total/NA	Water	7470A	386298
LCS 460-386298/2-A	Lab Control Sample	Total/NA	Water	7470A	386298
460-118817-3 MS	OB-12-081716	Total/NA	Water	7470A	386298
460-118817-3 DU	OB-12-081716	Total/NA	Water	7470A	386298

Metals (Continued)

Filtration Batch: 386957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Dissolved	Water	FILTRATION	
460-118817-2	OB-33-081716	Dissolved	Water	FILTRATION	
460-118817-3	OB-12-081716	Dissolved	Water	FILTRATION	
460-118817-4	OB-30B-081716	Dissolved	Water	FILTRATION	
460-118817-5	OB-15B-081716	Dissolved	Water	FILTRATION	
460-118817-6	OB-2-081716	Dissolved	Water	FILTRATION	
460-118817-7	OB-32-081716	Dissolved	Water	FILTRATION	
460-118817-8	OB-11R-081716	Dissolved	Water	FILTRATION	
460-118817-9	OB-31-081716	Dissolved	Water	FILTRATION	
460-118817-10	SC-2-081716	Dissolved	Water	FILTRATION	
460-118817-11	OB-27-081716	Dissolved	Water	FILTRATION	
460-118817-12	OB-19-081716	Dissolved	Water	FILTRATION	
460-118817-13	OB-4-081716	Dissolved	Water	FILTRATION	
MB 460-386957/1-B	Method Blank	Dissolved	Water	FILTRATION	
MB 460-386957/1-B ^2	Method Blank	Dissolved	Water	FILTRATION	
460-118817-1 MS	OB-30C-081716	Dissolved	Water	FILTRATION	
460-118817-1 DU	OB-30C-081716	Dissolved	Water	FILTRATION	

Prep Batch: 386959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Dissolved	Water	3010A	386957
460-118817-2	OB-33-081716	Dissolved	Water	3010A	386957
460-118817-3	OB-12-081716	Dissolved	Water	3010A	386957
460-118817-4	OB-30B-081716	Dissolved	Water	3010A	386957
460-118817-5	OB-15B-081716	Dissolved	Water	3010A	386957
460-118817-6	OB-2-081716	Dissolved	Water	3010A	386957
460-118817-7	OB-32-081716	Dissolved	Water	3010A	386957
460-118817-8	OB-11R-081716	Dissolved	Water	3010A	386957
460-118817-9	OB-31-081716	Dissolved	Water	3010A	386957
460-118817-10	SC-2-081716	Dissolved	Water	3010A	386957
460-118817-11	OB-27-081716	Dissolved	Water	3010A	386957
460-118817-12	OB-19-081716	Dissolved	Water	3010A	386957
460-118817-13	OB-4-081716	Dissolved	Water	3010A	386957
MB 460-386957/1-B	Method Blank	Dissolved	Water	3010A	386957
MB 460-386957/1-B ^2	Method Blank	Dissolved	Water	3010A	386957
LCS 460-386959/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCS 460-386959/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-118817-1 MS	OB-30C-081716	Dissolved	Water	3010A	386957
460-118817-1 DU	OB-30C-081716	Dissolved	Water	3010A	386957

Filtration Batch: 386975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Dissolved	Water	FILTRATION	
460-118817-2	OB-33-081716	Dissolved	Water	FILTRATION	
460-118817-3	OB-12-081716	Dissolved	Water	FILTRATION	
460-118817-4	OB-30B-081716	Dissolved	Water	FILTRATION	
460-118817-5	OB-15B-081716	Dissolved	Water	FILTRATION	
460-118817-6	OB-2-081716	Dissolved	Water	FILTRATION	
460-118817-7	OB-32-081716	Dissolved	Water	FILTRATION	
460-118817-8	OB-11R-081716	Dissolved	Water	FILTRATION	
460-118817-9	OB-31-081716	Dissolved	Water	FILTRATION	

Metals (Continued)

Filtration Batch: 386975 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-10	SC-2-081716	Dissolved	Water	FILTRATION	
460-118817-11	OB-27-081716	Dissolved	Water	FILTRATION	
460-118817-12	OB-19-081716	Dissolved	Water	FILTRATION	
460-118817-13	OB-4-081716	Dissolved	Water	FILTRATION	
MB 460-386975/1-B	Method Blank	Dissolved	Water	FILTRATION	
460-118898-I-4-B MS	Matrix Spike	Dissolved	Water	FILTRATION	
460-118898-B-4-B DU	Duplicate	Dissolved	Water	FILTRATION	

Prep Batch: 386977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Dissolved	Water	7470A	386975
460-118817-2	OB-33-081716	Dissolved	Water	7470A	386975
460-118817-3	OB-12-081716	Dissolved	Water	7470A	386975
460-118817-4	OB-30B-081716	Dissolved	Water	7470A	386975
460-118817-5	OB-15B-081716	Dissolved	Water	7470A	386975
460-118817-6	OB-2-081716	Dissolved	Water	7470A	386975
460-118817-7	OB-32-081716	Dissolved	Water	7470A	386975
460-118817-8	OB-11R-081716	Dissolved	Water	7470A	386975
460-118817-9	OB-31-081716	Dissolved	Water	7470A	386975
460-118817-10	SC-2-081716	Dissolved	Water	7470A	386975
460-118817-11	OB-27-081716	Dissolved	Water	7470A	386975
460-118817-12	OB-19-081716	Dissolved	Water	7470A	386975
460-118817-13	OB-4-081716	Dissolved	Water	7470A	386975
MB 460-386975/1-B	Method Blank	Dissolved	Water	7470A	386975
LCS 460-386977/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-118898-I-4-B MS	Matrix Spike	Dissolved	Water	7470A	386975
460-118898-B-4-B DU	Duplicate	Dissolved	Water	7470A	386975

Analysis Batch: 387030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Dissolved	Water	7470A	386977
460-118817-2	OB-33-081716	Dissolved	Water	7470A	386977
460-118817-3	OB-12-081716	Dissolved	Water	7470A	386977
460-118817-4	OB-30B-081716	Dissolved	Water	7470A	386977
460-118817-5	OB-15B-081716	Dissolved	Water	7470A	386977
460-118817-6	OB-2-081716	Dissolved	Water	7470A	386977
460-118817-7	OB-32-081716	Dissolved	Water	7470A	386977
460-118817-8	OB-11R-081716	Dissolved	Water	7470A	386977
460-118817-9	OB-31-081716	Dissolved	Water	7470A	386977
460-118817-10	SC-2-081716	Dissolved	Water	7470A	386977
460-118817-11	OB-27-081716	Dissolved	Water	7470A	386977
460-118817-12	OB-19-081716	Dissolved	Water	7470A	386977
460-118817-13	OB-4-081716	Dissolved	Water	7470A	386977
MB 460-386975/1-B	Method Blank	Dissolved	Water	7470A	386977
LCS 460-386977/2-A	Lab Control Sample	Total/NA	Water	7470A	386977
460-118898-I-4-B MS	Matrix Spike	Dissolved	Water	7470A	386977
460-118898-B-4-B DU	Duplicate	Dissolved	Water	7470A	386977

Analysis Batch: 387044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Dissolved	Water	6020A	386959

Metals (Continued)

Analysis Batch: 387044 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-2	OB-33-081716	Dissolved	Water	6020A	386959
460-118817-3	OB-12-081716	Dissolved	Water	6020A	386959
460-118817-4	OB-30B-081716	Dissolved	Water	6020A	386959
460-118817-5	OB-15B-081716	Dissolved	Water	6020A	386959
460-118817-6	OB-2-081716	Dissolved	Water	6020A	386959
460-118817-7	OB-32-081716	Dissolved	Water	6020A	386959
460-118817-8	OB-11R-081716	Dissolved	Water	6020A	386959
460-118817-9	OB-31-081716	Dissolved	Water	6020A	386959
460-118817-10	SC-2-081716	Dissolved	Water	6020A	386959
460-118817-11	OB-27-081716	Dissolved	Water	6020A	386959
460-118817-12	OB-19-081716	Dissolved	Water	6020A	386959
460-118817-13	OB-4-081716	Dissolved	Water	6020A	386959
MB 460-386957/1-B ^2	Method Blank	Dissolved	Water	6020A	386959
LCS 460-386959/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	386959
460-118817-1 MS	OB-30C-081716	Dissolved	Water	6020A	386959
460-118817-1 DU	OB-30C-081716	Dissolved	Water	6020A	386959

Prep Batch: 387090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Total/NA	Water	3010A	
460-118817-2	OB-33-081716	Total/NA	Water	3010A	
460-118817-3	OB-12-081716	Total/NA	Water	3010A	
460-118817-4	OB-30B-081716	Total/NA	Water	3010A	
460-118817-5	OB-15B-081716	Total/NA	Water	3010A	
460-118817-6	OB-2-081716	Total/NA	Water	3010A	
460-118817-7	OB-32-081716	Total/NA	Water	3010A	
460-118817-8	OB-11R-081716	Total/NA	Water	3010A	
460-118817-9	OB-31-081716	Total/NA	Water	3010A	
460-118817-10	SC-2-081716	Total/NA	Water	3010A	
460-118817-11	OB-27-081716	Total/NA	Water	3010A	
460-118817-12	OB-19-081716	Total/NA	Water	3010A	
460-118817-13	OB-4-081716	Total/NA	Water	3010A	
MB 460-387090/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-387090/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-118898-G-4-D MS ^2	Matrix Spike	Total/NA	Water	3010A	
460-118898-A-4-B DU ^2	Duplicate	Total/NA	Water	3010A	

Analysis Batch: 387280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Total/NA	Water	6020A	387090
460-118817-2	OB-33-081716	Total/NA	Water	6020A	387090
460-118817-3	OB-12-081716	Total/NA	Water	6020A	387090
460-118817-4	OB-30B-081716	Total/NA	Water	6020A	387090
460-118817-5	OB-15B-081716	Total/NA	Water	6020A	387090
460-118817-6	OB-2-081716	Total/NA	Water	6020A	387090
460-118817-7	OB-32-081716	Total/NA	Water	6020A	387090
460-118817-8	OB-11R-081716	Total/NA	Water	6020A	387090
460-118817-9	OB-31-081716	Total/NA	Water	6020A	387090
460-118817-10	SC-2-081716	Total/NA	Water	6020A	387090
460-118817-11	OB-27-081716	Total/NA	Water	6020A	387090
460-118817-12	OB-19-081716	Total/NA	Water	6020A	387090

Metals (Continued)

Analysis Batch: 387280 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-13	OB-4-081716	Total/NA	Water	6020A	387090
MB 460-387090/1-A ^2	Method Blank	Total/NA	Water	6020A	387090
LCS 460-387090/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387090
460-118898-G-4-D MS ^2	Matrix Spike	Total/NA	Water	6020A	387090
460-118898-A-4-B DU ^2	Duplicate	Total/NA	Water	6020A	387090

Analysis Batch: 387282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Dissolved	Water	6020A	386959
460-118817-2	OB-33-081716	Dissolved	Water	6020A	386959
460-118817-3	OB-12-081716	Dissolved	Water	6020A	386959
460-118817-4	OB-30B-081716	Dissolved	Water	6020A	386959
460-118817-5	OB-15B-081716	Dissolved	Water	6020A	386959
460-118817-6	OB-2-081716	Dissolved	Water	6020A	386959
460-118817-7	OB-32-081716	Dissolved	Water	6020A	386959
460-118817-8	OB-11R-081716	Dissolved	Water	6020A	386959
460-118817-9	OB-31-081716	Dissolved	Water	6020A	386959
460-118817-10	SC-2-081716	Dissolved	Water	6020A	386959
460-118817-11	OB-27-081716	Dissolved	Water	6020A	386959
460-118817-12	OB-19-081716	Dissolved	Water	6020A	386959
460-118817-13	OB-4-081716	Dissolved	Water	6020A	386959
MB 460-386957/1-B	Method Blank	Dissolved	Water	6020A	386959
LCS 460-386959/2-A	Lab Control Sample	Total/NA	Water	6020A	386959
460-118817-1 MS	OB-30C-081716	Dissolved	Water	6020A	386959
460-118817-1 DU	OB-30C-081716	Dissolved	Water	6020A	386959

General Chemistry

Analysis Batch: 386996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Total/NA	Water	SM 2320B	
460-118817-2	OB-33-081716	Total/NA	Water	SM 2320B	
460-118817-3	OB-12-081716	Total/NA	Water	SM 2320B	
460-118817-4	OB-30B-081716	Total/NA	Water	SM 2320B	
460-118817-5	OB-15B-081716	Total/NA	Water	SM 2320B	
460-118817-6	OB-2-081716	Total/NA	Water	SM 2320B	
460-118817-7	OB-32-081716	Total/NA	Water	SM 2320B	
460-118817-8	OB-11R-081716	Total/NA	Water	SM 2320B	
460-118817-9	OB-31-081716	Total/NA	Water	SM 2320B	
460-118817-10	SC-2-081716	Total/NA	Water	SM 2320B	
MB 460-386996/1	Method Blank	Total/NA	Water	SM 2320B	
LCSSRM 460-386996/2	Lab Control Sample	Total/NA	Water	SM 2320B	
460-118817-1 DU	OB-30C-081716	Total/NA	Water	SM 2320B	

Prep Batch: 387409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-7	OB-32-081716	Total/NA	Water	9012B	
460-118817-8	OB-11R-081716	Total/NA	Water	9012B	
460-118817-9	OB-31-081716	Total/NA	Water	9012B	
460-118817-10	SC-2-081716	Total/NA	Water	9012B	

General Chemistry (Continued)

Prep Batch: 387409 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-11	OB-27-081716	Total/NA	Water	9012B	
460-118817-12	OB-19-081716	Total/NA	Water	9012B	
460-118817-13	OB-4-081716	Total/NA	Water	9012B	
MB 460-387409/1-A	Method Blank	Total/NA	Water	9012B	
HLCS 460-387409/3-A	Lab Control Sample	Total/NA	Water	9012B	
LLCS 460-387409/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-118898-F-13-B MS	Matrix Spike	Total/NA	Water	9012B	
460-118898-F-13-C MSD	Matrix Spike Duplicate	Total/NA	Water	9012B	

Analysis Batch: 387474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-7	OB-32-081716	Total/NA	Water	9012B	387409
460-118817-8	OB-11R-081716	Total/NA	Water	9012B	387409
460-118817-9	OB-31-081716	Total/NA	Water	9012B	387409
460-118817-10	SC-2-081716	Total/NA	Water	9012B	387409
460-118817-11	OB-27-081716	Total/NA	Water	9012B	387409
460-118817-12	OB-19-081716	Total/NA	Water	9012B	387409
460-118817-13	OB-4-081716	Total/NA	Water	9012B	387409
MB 460-387409/1-A	Method Blank	Total/NA	Water	9012B	387409
HLCS 460-387409/3-A	Lab Control Sample	Total/NA	Water	9012B	387409
LLCS 460-387409/2-A	Lab Control Sample	Total/NA	Water	9012B	387409
460-118898-F-13-B MS	Matrix Spike	Total/NA	Water	9012B	387409
460-118898-F-13-C MSD	Matrix Spike Duplicate	Total/NA	Water	9012B	387409

Analysis Batch: 387653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-11	OB-27-081716	Total/NA	Water	SM 2320B	
460-118817-12	OB-19-081716	Total/NA	Water	SM 2320B	
460-118817-13	OB-4-081716	Total/NA	Water	SM 2320B	
MB 460-387653/1	Method Blank	Total/NA	Water	SM 2320B	
LCSSRM 460-387653/2	Lab Control Sample	Total/NA	Water	SM 2320B	
460-118898-E-4 DU	Duplicate	Total/NA	Water	SM 2320B	

Prep Batch: 387699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Total/NA	Water	9012B	
460-118817-2	OB-33-081716	Total/NA	Water	9012B	
460-118817-3	OB-12-081716	Total/NA	Water	9012B	
460-118817-4	OB-30B-081716	Total/NA	Water	9012B	
460-118817-5	OB-15B-081716	Total/NA	Water	9012B	
460-118817-6	OB-2-081716	Total/NA	Water	9012B	
MB 460-387699/1-A	Method Blank	Total/NA	Water	9012B	
HLCS 460-387699/3-A	Lab Control Sample	Total/NA	Water	9012B	
LLCS 460-387699/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-118817-4 MS	OB-30B-081716	Total/NA	Water	9012B	
460-118817-4 MSD	OB-30B-081716	Total/NA	Water	9012B	
460-118817-6 MS	OB-2-081716	Total/NA	Water	9012B	
460-118817-6 MSD	OB-2-081716	Total/NA	Water	9012B	

General Chemistry (Continued)

Analysis Batch: 387726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118817-1	OB-30C-081716	Total/NA	Water	9012B	387699
460-118817-2	OB-33-081716	Total/NA	Water	9012B	387699
460-118817-3	OB-12-081716	Total/NA	Water	9012B	387699
460-118817-4	OB-30B-081716	Total/NA	Water	9012B	387699
460-118817-5	OB-15B-081716	Total/NA	Water	9012B	387699
460-118817-6	OB-2-081716	Total/NA	Water	9012B	387699
MB 460-387699/1-A	Method Blank	Total/NA	Water	9012B	387699
HLCS 460-387699/3-A	Lab Control Sample	Total/NA	Water	9012B	387699
LLCS 460-387699/2-A	Lab Control Sample	Total/NA	Water	9012B	387699
460-118817-4 MS	OB-30B-081716	Total/NA	Water	9012B	387699
460-118817-4 MSD	OB-30B-081716	Total/NA	Water	9012B	387699
460-118817-6 MS	OB-2-081716	Total/NA	Water	9012B	387699
460-118817-6 MSD	OB-2-081716	Total/NA	Water	9012B	387699

Client Sample ID: OB-30C-081716

Lab Sample ID: 460-118817-1

Date Collected: 08/17/16 10:30

Matrix: Water

Date Received: 08/18/16 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386113	08/23/16 01:00	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 13:56	DAS	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D		1	386897	08/26/16 17:35	MMC	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387262	08/28/16 16:56	CAZ	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386462	08/24/16 10:49	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	10	385736	08/21/16 06:42	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387044	08/26/16 13:39	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387282	08/26/16 21:22	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 19:27	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 14:50	RBS	TAL EDI
Total/NA	Prep	7470A			386298	08/23/16 12:05	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 14:43	RBS	TAL EDI
Total/NA	Prep	9012B			387699	08/30/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 18:56	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	386996	08/26/16 10:00	IAA	TAL EDI

Client Sample ID: OB-33-081716

Lab Sample ID: 460-118817-2

Date Collected: 08/17/16 11:05

Matrix: Water

Date Received: 08/18/16 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386113	08/23/16 01:26	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 14:21	DAS	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D		1	386897	08/26/16 17:55	MMC	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387262	08/28/16 17:25	CAZ	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386462	08/24/16 11:06	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385736	08/21/16 00:01	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387044	08/26/16 13:50	MDC	TAL EDI

Client Sample ID: OB-33-081716

Lab Sample ID: 460-118817-2

Date Collected: 08/17/16 11:05

Matrix: Water

Date Received: 08/18/16 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387282	08/26/16 21:34	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 19:29	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 14:52	RBS	TAL EDI
Total/NA	Prep	7470A			386298	08/23/16 12:05	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 14:49	RBS	TAL EDI
Total/NA	Prep	9012B			387699	08/30/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 18:57	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	386996	08/26/16 10:00	IAA	TAL EDI

Client Sample ID: OB-12-081716

Lab Sample ID: 460-118817-3

Date Collected: 08/17/16 11:10

Matrix: Water

Date Received: 08/18/16 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386113	08/23/16 01:52	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 14:46	DAS	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D		1	386897	08/26/16 18:15	MMC	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387262	08/28/16 17:54	CAZ	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386462	08/24/16 11:24	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385736	08/21/16 00:19	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387044	08/26/16 13:56	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387282	08/26/16 21:40	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 19:32	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 14:54	RBS	TAL EDI
Total/NA	Prep	7470A			386298	08/23/16 12:05	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 14:28	RBS	TAL EDI
Total/NA	Prep	9012B			387699	08/30/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 18:58	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	386996	08/26/16 10:00	IAA	TAL EDI

Client Sample ID: OB-30B-081716

Lab Sample ID: 460-118817-4

Date Collected: 08/17/16 11:45

Matrix: Water

Date Received: 08/18/16 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386113	08/23/16 02:18	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386244	08/23/16 15:11	DAS	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387329	08/29/16 11:09	MMC	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387262	08/28/16 18:23	CAZ	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386462	08/24/16 11:42	JHP	TAL EDI
Total/NA	Analysis	9056A		20	386293	08/23/16 15:48	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387044	08/26/16 14:01	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387282	08/26/16 21:51	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 19:34	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 14:56	RBS	TAL EDI
Total/NA	Prep	7470A			386298	08/23/16 12:05	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 14:51	RBS	TAL EDI
Total/NA	Prep	9012B			387699	08/30/16 15:49	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 18:59	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	386996	08/26/16 10:00	IAA	TAL EDI

Client Sample ID: OB-15B-081716

Lab Sample ID: 460-118817-5

Date Collected: 08/17/16 12:30

Matrix: Water

Date Received: 08/18/16 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386113	08/23/16 02:44	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386381	08/24/16 02:08	DAS	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387329	08/29/16 11:29	MMC	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387262	08/28/16 18:52	CAZ	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386462	08/24/16 12:00	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385736	08/21/16 02:27	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387044	08/26/16 14:07	MDC	TAL EDI

Client Sample ID: OB-15B-081716

Lab Sample ID: 460-118817-5

Date Collected: 08/17/16 12:30

Matrix: Water

Date Received: 08/18/16 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387282	08/26/16 22:15	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 19:37	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 14:58	RBS	TAL EDI
Total/NA	Prep	7470A			386298	08/23/16 12:05	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 14:53	RBS	TAL EDI
Total/NA	Prep	9012B			387699	08/30/16 15:49	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 19:01	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	386996	08/26/16 10:00	IAA	TAL EDI

Client Sample ID: OB-2-081716

Lab Sample ID: 460-118817-6

Date Collected: 08/17/16 12:50

Matrix: Water

Date Received: 08/18/16 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386113	08/23/16 03:09	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386381	08/24/16 02:33	DAS	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387329	08/29/16 12:09	MMC	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387262	08/28/16 19:21	CAZ	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386462	08/24/16 12:18	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385736	08/21/16 02:45	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387044	08/26/16 14:29	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387282	08/26/16 22:21	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 19:40	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 15:03	RBS	TAL EDI
Total/NA	Prep	7470A			386298	08/23/16 12:05	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 14:55	RBS	TAL EDI
Total/NA	Prep	9012B			387699	08/30/16 15:47	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 18:45	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	386996	08/26/16 10:00	IAA	TAL EDI

Client Sample ID: OB-32-081716

Lab Sample ID: 460-118817-7

Date Collected: 08/17/16 13:30

Matrix: Water

Date Received: 08/18/16 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386113	08/23/16 03:35	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386381	08/24/16 02:58	DAS	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387329	08/29/16 12:28	MMC	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387262	08/28/16 19:49	CAZ	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386462	08/24/16 12:36	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385736	08/21/16 03:03	FPO	TAL EDI
Total/NA	Analysis	9056A		20	386293	08/23/16 16:07	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387044	08/26/16 14:35	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387282	08/26/16 22:26	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 19:42	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 15:05	RBS	TAL EDI
Total/NA	Prep	7470A			386298	08/23/16 12:05	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 14:56	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:53	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	386996	08/26/16 10:00	IAA	TAL EDI

Client Sample ID: OB-11R-081716

Lab Sample ID: 460-118817-8

Date Collected: 08/17/16 14:30

Matrix: Water

Date Received: 08/18/16 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386113	08/23/16 04:01	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386381	08/24/16 03:23	DAS	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387329	08/29/16 12:48	MMC	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387262	08/28/16 20:18	CAZ	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386462	08/24/16 15:42	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385736	08/21/16 03:22	FPO	TAL EDI
Total/NA	Analysis	9056A		20	386293	08/23/16 16:25	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI

Client Sample ID: OB-11R-081716

Lab Sample ID: 460-118817-8

Date Collected: 08/17/16 14:30

Matrix: Water

Date Received: 08/18/16 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387044	08/26/16 14:41	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387282	08/26/16 22:32	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 19:55	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 15:07	RBS	TAL EDI
Total/NA	Prep	7470A			386298	08/23/16 12:05	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 14:58	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:54	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	386996	08/26/16 10:00	IAA	TAL EDI

Client Sample ID: OB-31-081716

Lab Sample ID: 460-118817-9

Date Collected: 08/17/16 14:45

Matrix: Water

Date Received: 08/18/16 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386113	08/23/16 04:27	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386381	08/24/16 03:48	DAS	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387329	08/29/16 13:08	MMC	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387339	08/29/16 05:04	MMC	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386462	08/24/16 13:25	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385736	08/21/16 03:40	FPO	TAL EDI
Total/NA	Analysis	9056A		20	386293	08/23/16 16:43	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387044	08/26/16 14:46	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387282	08/26/16 22:38	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 20:00	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 15:09	RBS	TAL EDI
Total/NA	Prep	7470A			386298	08/23/16 12:05	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 15:00	RBS	TAL EDI

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:55	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	386996	08/26/16 10:00	IAA	TAL EDI

Client Sample ID: SC-2-081716

Date Collected: 08/17/16 15:00
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386113	08/23/16 04:52	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386381	08/24/16 04:13	DAS	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387329	08/29/16 13:27	MMC	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387339	08/29/16 05:33	MMC	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386462	08/24/16 13:43	JHP	TAL EDI
Total/NA	Analysis	9056A		20	386293	08/23/16 17:01	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387044	08/26/16 14:52	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387282	08/26/16 22:44	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 20:05	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 15:11	RBS	TAL EDI
Total/NA	Prep	7470A			386298	08/23/16 12:05	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 15:10	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:56	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	386996	08/26/16 10:00	IAA	TAL EDI

Client Sample ID: OB-27-081716

Date Collected: 08/17/16 16:05
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386113	08/23/16 05:18	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386381	08/24/16 04:39	DAS	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387329	08/29/16 13:47	MMC	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387339	08/29/16 06:02	MMC	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI

Client Sample ID: OB-27-081716

Lab Sample ID: 460-118817-11

Date Collected: 08/17/16 16:05

Matrix: Water

Date Received: 08/18/16 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8082A		1	386462	08/24/16 14:01	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385736	08/21/16 04:16	FPO	TAL EDI
Total/NA	Analysis	9056A		20	386293	08/23/16 17:20	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387044	08/26/16 14:57	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387282	08/26/16 22:50	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 20:08	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 15:13	RBS	TAL EDI
Total/NA	Prep	7470A			386298	08/23/16 12:05	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 15:12	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:57	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	387653	08/30/16 10:00	IAA	TAL EDI

Client Sample ID: OB-19-081716

Lab Sample ID: 460-118817-12

Date Collected: 08/17/16 17:20

Matrix: Water

Date Received: 08/18/16 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386206	08/23/16 12:09	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386381	08/24/16 05:03	DAS	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387329	08/29/16 14:07	MMC	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387339	08/29/16 06:31	MMC	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386462	08/24/16 14:19	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385736	08/21/16 04:35	FPO	TAL EDI
Total/NA	Analysis	9056A		20	386293	08/23/16 17:38	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387044	08/26/16 15:03	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387282	08/26/16 22:55	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 20:13	PHP	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: OB-19-081716

Date Collected: 08/17/16 17:20
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 15:15	RBS	TAL EDI
Total/NA	Prep	7470A			386298	08/23/16 12:05	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 15:17	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:57	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	387653	08/30/16 10:00	IAA	TAL EDI

Client Sample ID: OB-4-081716

Date Collected: 08/17/16 17:35
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386206	08/23/16 12:35	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386381	08/24/16 05:28	DAS	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387329	08/29/16 14:26	MMC	TAL EDI
Total/NA	Prep	3510C			386082	08/22/16 12:47	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387339	08/29/16 07:00	MMC	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386460	08/24/16 19:49	JHP	TAL EDI
Total/NA	Analysis	9056A		1	385736	08/21/16 04:53	FPO	TAL EDI
Total/NA	Analysis	9056A		100	386293	08/23/16 17:56	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387044	08/26/16 15:08	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			386957	08/26/16 10:13	MDC	TAL EDI
Dissolved	Prep	3010A			386959	08/26/16 10:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387282	08/26/16 23:07	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 20:16	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 15:17	RBS	TAL EDI
Total/NA	Prep	7470A			386298	08/23/16 12:05	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386345	08/23/16 15:19	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:58	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	387653	08/30/16 10:00	IAA	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Client Sample ID: TB-02-081716
Date Collected: 08/17/16 00:00
Date Received: 08/18/16 11:20

Lab Sample ID: 460-118817-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386113	08/23/16 00:34	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386381	08/24/16 00:54	DAS	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Certification Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Laboratory: TestAmerica Edison

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New Jersey	NELAP	2	12028	06-30-17

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,4-Trichlorobenzene
8260C SIM		Water	1,2,3-Trichloropropane
8260C SIM		Water	1,2-Dibromo-3-Chloropropane
8260C SIM		Water	Ethylene Dibromide
8270D SIM	3510C	Water	Bis(2-chloroethyl)ether
9056A		Water	Chloride
9056A		Water	Sulfate

Method Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
9056A	Anions, Ion Chromatography	SW846	TAL EDI
6020A	Metals (ICP/MS)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
9012B	Cyanide, Total andor Amenable	SW846	TAL EDI
SM 2320B	Alkalinity	SM	TAL EDI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118817-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-118817-1	OB-30C-081716	Water	08/17/16 10:30	08/18/16 11:20
460-118817-2	OB-33-081716	Water	08/17/16 11:05	08/18/16 11:20
460-118817-3	OB-12-081716	Water	08/17/16 11:10	08/18/16 11:20
460-118817-4	OB-30B-081716	Water	08/17/16 11:45	08/18/16 11:20
460-118817-5	OB-15B-081716	Water	08/17/16 12:30	08/18/16 11:20
460-118817-6	OB-2-081716	Water	08/17/16 12:50	08/18/16 11:20
460-118817-7	OB-32-081716	Water	08/17/16 13:30	08/18/16 11:20
460-118817-8	OB-11R-081716	Water	08/17/16 14:30	08/18/16 11:20
460-118817-9	OB-31-081716	Water	08/17/16 14:45	08/18/16 11:20
460-118817-10	SC-2-081716	Water	08/17/16 15:00	08/18/16 11:20
460-118817-11	OB-27-081716	Water	08/17/16 16:05	08/18/16 11:20
460-118817-12	OB-19-081716	Water	08/17/16 17:20	08/18/16 11:20
460-118817-13	OB-4-081716	Water	08/17/16 17:35	08/18/16 11:20
460-118817-14	TB-02-081716	Water	08/17/16 00:00	08/18/16 11:20

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CHAIN OF CUSTO

460-118817 Chain of Custody

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Name (for report and invoice): Tim Rooper	Samplers Name (Printed): Robert Lautenberg	Site/Project Identification: Ford - Ringwood
Company: Cornerstone Environmental Group	P. O. #: 140802-015	State (Location of site): NJ: X NY: Other:
		Regulatory Program: DKQP:
Address: 100 Crystal Run Rd., Suite 101	Analysis Turnaround Time: Standard X	LAB USE ONLY Project No:
City: Middletown State: NY 10941	Rush Charges Authorized For: 2 Week / 1 Week / Other	Job No: 118817
Phone: 845-695-0200 Fax:		Sample Numbers

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOCs + 15 TICs 8260 B	TCL SVOCs + 15 TICs 8270 C	TAL Metals - Total & Filtered 6010B/7470A	PCBs	Alkalinity, Total as CaCO3, 2320 B	Chloride 300/9056	Sulfate 300/9056	Cyanide				
OB-30C-081716	8/17/16	10:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-1
OB-33-081716	8/17/16	11:05	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-2
OB-12-081716	8/17/16	11:10	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-3
BB-30B-081716	8/17/16	11:45	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-4
OB-15B-081716	8/17/16	12:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-5
OB-2-081716	8/17/16	12:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-6
OB-32-081716	8/17/16	13:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-7
OB-11R-081716	8/17/16	14:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-8
OB-31-081716	8/17/16	14:45	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-9
SC-2-081716	8/17/16	15:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-10

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH — Soil: / Water:

6 = Other _____, 7 = Other _____

Special Instructions _____ Water Metals Filtered (Yes/No)? _____

	Company	Date / Time	Received by	Company
Relinquished by	Cornerstone	8/18/16 830	Received by 1)	TA
Relinquished by 2)	TA	8/18/16 1120	Received by 2) Alex Acierno	TA
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

IR7- 14005 01-13-07-1.8-09

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

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CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 2 of 2

Name (for report and invoice) Tim Roeper	Samplers Name (Printed) Robert Lastenberg	Site/Project Identification Ford - Ringwood	
Company Cornerstone Environmental Group	P. O. # 140802-015	State (Location of site): NJ: ☒ NY: ☐ Other:	
		Regulatory Program:	DKQP: ☐
Address 100 Crystal Run Rd, Suite 101	Analysis Turnaround Time: Standard ☑		
City Middletown State NY 10941	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐		
Phone 845 695 0200 Fax			

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + ISTDs 8260B	TCL SVOC + ISTDs 8270C	TAL Metals - Total + Filtered 6010B/7000	PCBs 8082	Alkalinity, Total as CaCO3 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	LAB USE ONLY Project No: Job No: 118817 Sample Numbers
OB-27-081716	8/17/16	16:05	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-11
OB-19-081716	8/17/16	17:20	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-12
OB-4-081716	8/17/16	17:35	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-13
TB-02-081716	8/17/16	—	BW	3	✓								-14

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____ Soil: Water:

Special Instructions Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/18/16 830	1)	TA
2)	TA	8/18/16 1120	2)	
3)			3)	
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

IR7 - No C5

8/31/2016

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 118817

Number of Coolers: 5 IR Gun # 7

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	01 °C	01 °C	Cooler #4:	1.8 °C	1.8 °C	Cooler #7:	°C	°C
Cooler #2:	1.3 °C	1.3 °C	Cooler #5:	0.9 °C	0.9 °C	Cooler #8:	°C	°C
Cooler #3:	0.7 °C	0.7 °C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
1				<2								>12			
2				<2								>12			
3				<2								>12			
4				<2								>12			
5				<2								>12			
6				<2								>12			
7				<2								>12			
8				<2								>12			
9				<2								>12			
10				<2								>12			
11				<2								>12			
12				<2								>12			
13				<2								>12			

If pH adjustments are required record the information below:

Sample No(s). adjusted: NA

Preservative Name/Conc.: NA Volume of Preservative used (ml): NA

Lot # of Preservative(s): NA Expiration Date: NA

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: [signature] Date: 8/18/16

Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 460-118817-1

Login Number: 118817
List Number: 1
Creator: Rivera, Kenneth

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1, 1.3, 0.7, 1.8, 0.9, IR #7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-118898-1
Client Project/Site: FORD Ringwood Mines E203361
Revision: 1

For:
Cornerstone Environmental Group, LLC
100 Crystal Run Road
Suite 101
Middletown, New York 10941

Attn: Tim Roeper

Authorized for release by:
10/3/2016 10:55:53 AM
Kristin DeGraw, Project Manager II
(732)593-2555
kristin.degraw@testamericainc.com

Designee for

Marie Meidhof, Project Manager II
(732)549-3900
marie.meidhof@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	This flag indicates the presumptive evidence of a compound.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
F1	MS and/or MSD Recovery is outside acceptance limits.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: TestAmerica Edison

Client: Cornerstone Environmental Group, LLC

Project Location: FORD Ringwood Mines E203361

Project Number: 460-118898-1

Laboratory Sample ID(s): 460-118898-1, 460-118898-2, 460-118898-3, 460-118898-4, 460-118898-5, 460-118898-6, 460-118898-7, 460-118898-8, 460-118898-9, 460-118898-10, 460-118898-11, 460-118898-12, 460-118898-13, 460-118898-14, 460-118898-15

Sampling Date(s): 08/18/2016

List DKQP Methods Used: 8260C, 8260C SIM, 8270D, 8270D SIM, 8082A, 6020A, 7470A, 9012B

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	☑Yes ☐No
1A	Were the method specified handling, preservation, and holding time requirements met?	☐Yes ☐No ☑ See case narrative
1B	*EPH Method:* Was the EPH method conducted without significant modifications? (see Section 11.3 of respective DKQ methods)	☐Yes ☐No ☑N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody documents(s)?	☐Yes ☐No ☑ See case narrative
3	Were samples received at an appropriate temperature (4±2° C)?	☑Yes ☐No ☐N/A
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	☐Yes ☑No
5	a) Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	☐Yes ☐No ☑ See case narrative
	b) Were these reporting limits met?	☐Yes ☐No ☐N/A ☑ See case narrative
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	☑Yes ☐No
7	Are project-specific matrix spike and/or laboratory duplicates included in this data set?	☑Yes ☐No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information should be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet requirements for "Data of Known Quality."

Job ID: 460-118898-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE
REVISION I

Client: Cornerstone Environmental Group, LLC

Project: FORD Ringwood Mines E203361

Report Number: 460-118898-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 8/19/2016 11:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 0.0º C, 0.1º C, 0.2º C, 0.7º C, 0.7º C and 0.8º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

REVISION I

Bicarbonate was reported incorrectly in the original report for sample RW-5-081816 (460-118898-15). The attached revised repo includes the correct result of 22.1 mg/l.

VOLATILE ORGANIC COMPOUNDS DKQP AQUEOUS

Samples TB-03-081816 (460-118898-1), FB-02-081816 (460-118898-2), OB-20A-081816 (460-118898-3), OB-6-081816 (460-118898-4), OB-21-081816 (460-118898-5), Dup-02-081816 (460-118898-6), RW-6-081816 (460-118898-7), RW-7-081816 (460-118898-8), OB-5-081816 (460-118898-9), OB-20B-081816 (460-118898-10), RW-6A-081816 (460-118898-11), RW-5A-081816 (460-118898-12), OB-7-081816 (460-118898-13), OB-25-081816 (460-118898-14) and RW-5-081816 (460-118898-15) were analyzed for Volatile organic compounds DKQP Aqueous in accordance with EPA SW-846 Methods 8260C DKQP. The samples were analyzed on 08/24/2016.

No difficulties were encountered during the Volatile organic compounds DKQP Aqueous analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) DKQP

Samples FB-02-081816 (460-118898-2), OB-20A-081816 (460-118898-3), OB-6-081816 (460-118898-4), OB-21-081816 (460-118898-5), Dup-02-081816 (460-118898-6), RW-6-081816 (460-118898-7), RW-7-081816 (460-118898-8), OB-5-081816 (460-118898-9), OB-20B-081816 (460-118898-10), RW-6A-081816 (460-118898-11), RW-5A-081816 (460-118898-12), OB-7-081816 (460-118898-13), OB-25-081816 (460-118898-14) and RW-5-081816 (460-118898-15) were analyzed for Semivolatile organic compounds (GC/MS) DKQP

Job ID: 460-118898-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

in accordance with EPA SW-846 Method 8270D DKQP. The samples were prepared on 08/23/2016 and analyzed on 08/28/2016.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for OB-20B-081816 (460-118898-10). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for RW-6A-081816 (460-118898-11). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for RW-5A-081816 (460-118898-12). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for OB-7-081816 (460-118898-13). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for OB-25-081816 (460-118898-14). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for RW-5-081816 (460-118898-15). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for FB-02-081816 (460-118898-2). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for OB-20A-081816 (460-118898-3). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for OB-6-081816 (460-118898-4). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for OB-21-081816 (460-118898-5). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for RW-6-081816 (460-118898-7). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for OB-5-081816 (460-118898-9). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for LCS 460-386330/2-A. 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for LCS 460-386330/3-A. 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for OB-6-081816MS (460-118898-4MS). 2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for OB-6-081816MSD (460-118898-4MSD). Refer to the QC report for details.

2-Methylphenol failed the recovery criteria low for LCS 460-386330/2-A. Refer to the QC report for details.

2-Methylphenol failed the recovery criteria low for the MS/MSD of sample OB-6-081816MS/MSD (460-118898-4) in batch 460-387265.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)

Samples FB-02-081816 (460-118898-2), OB-20A-081816 (460-118898-3), OB-6-081816 (460-118898-4), OB-21-081816 (460-118898-5), Dup-02-081816 (460-118898-6), RW-6-081816 (460-118898-7), RW-7-081816 (460-118898-8), OB-5-081816 (460-118898-9), OB-20B-081816 (460-118898-10), RW-6A-081816 (460-118898-11), RW-5A-081816 (460-118898-12), OB-7-081816 (460-118898-13), OB-25-081816 (460-118898-14) and RW-5-081816 (460-118898-15) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) in accordance with EPA Method 8270C SIM DKQP. The samples were prepared on 08/23/2016 and analyzed on 08/30/2016 and 08/31/2016.

No difficulties were encountered during the semivolatile organic compounds - Selected Ion Mode (SIM) analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS) DKQP

Samples TB-03-081816 (460-118898-1), FB-02-081816 (460-118898-2), OB-20A-081816 (460-118898-3), OB-6-081816 (460-118898-4), OB-21-081816 (460-118898-5), Dup-02-081816 (460-118898-6), RW-6-081816 (460-118898-7), RW-7-081816 (460-118898-8), OB-5-081816 (460-118898-9), OB-20B-081816 (460-118898-10), RW-6A-081816 (460-118898-11), RW-5A-081816 (460-118898-12), OB-7-081816 (460-118898-13), OB-25-081816 (460-118898-14) and RW-5-081816 (460-118898-15) were analyzed for volatile organic compounds (GC-MS) DKQP in accordance with EPA SW-846 Method 8260C SIM DKQP. The samples were analyzed on 08/24/2016 and 08/26/2016.

No difficulties were encountered during the volatile organic compounds (GC-MS) DKQP analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS) DKQP

Samples FB-02-081816 (460-118898-2), OB-20A-081816 (460-118898-3), OB-6-081816 (460-118898-4), OB-21-081816 (460-118898-5), Dup-02-081816 (460-118898-6), RW-6-081816 (460-118898-7), RW-7-081816 (460-118898-8), OB-5-081816 (460-118898-9), OB-20B-081816 (460-118898-10), RW-6A-081816 (460-118898-11), RW-5A-081816 (460-118898-12), OB-7-081816 (460-118898-13), OB-25-081816 (460-118898-14) and RW-5-081816 (460-118898-15) were analyzed for polychlorinated biphenyls (PCBs) DKQP in

Job ID: 460-118898-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

accordance with EPA SW-846 Method 8082A DKQP. The samples were prepared on 08/23/2016 and 08/24/2016 and analyzed on 08/24/2016, 08/25/2016 and 08/26/2016.

PCB-1260 failed the recovery criteria high for the MSD of sample OB-6-081816MSD (460-118898-4) in batch 460-386462.

PCB-1260 failed the recovery criteria high for the MSD of sample 460-118951-4 in batch 460-386701.

Refer to the QC report for details.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

METALS DKQP

Samples FB-02-081816 (460-118898-2), OB-20A-081816 (460-118898-3), OB-6-081816 (460-118898-4), OB-21-081816 (460-118898-5), Dup-02-081816 (460-118898-6), RW-6-081816 (460-118898-7), RW-7-081816 (460-118898-8), OB-5-081816 (460-118898-9), OB-20B-081816 (460-118898-10), RW-6A-081816 (460-118898-11), RW-5A-081816 (460-118898-12), OB-7-081816 (460-118898-13), OB-25-081816 (460-118898-14) and RW-5-081816 (460-118898-15) were analyzed for Metals DKQP in accordance with EPA SW-846 Method 6020A DKQP. The samples were prepared on 08/29/2016 and analyzed on 08/29/2016 and 09/01/2016.

Silver failed the recovery criteria low for the MS of sample OB-6-081816MS (460-118898-4) in batch 460-387675.

Refer to the QC report for details.

for the duplicate of sample OB-6-081816DU (460-118898-4). Refer to the QC report for details.

Samples FB-02-081816 (460-118898-2)[2X], OB-20A-081816 (460-118898-3)[2X], OB-6-081816 (460-118898-4)[2X], OB-21-081816 (460-118898-5)[2X], Dup-02-081816 (460-118898-6)[2X], RW-6-081816 (460-118898-7)[2X], RW-7-081816 (460-118898-8)[2X], OB-5-081816 (460-118898-9)[2X], OB-20B-081816 (460-118898-10)[2X], RW-6A-081816 (460-118898-11)[2X], RW-5A-081816 (460-118898-12)[2X], OB-7-081816 (460-118898-13)[2X], OB-25-081816 (460-118898-14)[2X] and RW-5-081816 (460-118898-15)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Metals DKQP analysis.

All other quality control parameters were within the acceptance limits.

METALS

Samples FB-02-081816 (460-118898-2), OB-20A-081816 (460-118898-3), OB-6-081816 (460-118898-4), OB-21-081816 (460-118898-5), Dup-02-081816 (460-118898-6), RW-6-081816 (460-118898-7), RW-7-081816 (460-118898-8), OB-5-081816 (460-118898-9), OB-20B-081816 (460-118898-10), RW-6A-081816 (460-118898-11), RW-5A-081816 (460-118898-12), OB-7-081816 (460-118898-13), OB-25-081816 (460-118898-14) and RW-5-081816 (460-118898-15) were analyzed for Metals in accordance with EPA SW-846 Method 6020A DKQP. The samples were prepared on 08/26/2016 and analyzed on 08/27/2016, 08/28/2016 and 08/30/2016.

Calcium failed the recovery criteria low for the MS of sample 460-118951-4 in batch 460-387394.

Aluminum exceeded the RPD limit for the duplicate of sample OB-6-081816DU (460-118898-4).

Refer to the QC report for details.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

MERCURY DKQP

Samples FB-02-081816 (460-118898-2), OB-20A-081816 (460-118898-3), OB-6-081816 (460-118898-4), OB-21-081816 (460-118898-5),

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Laboratory: TestAmerica Edison (Continued)

Dup-02-081816 (460-118898-6), RW-6-081816 (460-118898-7), RW-7-081816 (460-118898-8), OB-5-081816 (460-118898-9), OB-20B-081816 (460-118898-10), RW-6A-081816 (460-118898-11), RW-5A-081816 (460-118898-12), OB-7-081816 (460-118898-13), OB-25-081816 (460-118898-14) and RW-5-081816 (460-118898-15) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 08/26/2016 and 08/29/2016.

No difficulties were encountered during the dissolved Hg analysis.

All quality control parameters were within the acceptance limits.

MERCURY DKQP

Samples FB-02-081816 (460-118898-2), OB-20A-081816 (460-118898-3), OB-6-081816 (460-118898-4), OB-21-081816 (460-118898-5), Dup-02-081816 (460-118898-6), RW-6-081816 (460-118898-7), RW-7-081816 (460-118898-8), OB-5-081816 (460-118898-9), OB-20B-081816 (460-118898-10), RW-6A-081816 (460-118898-11), RW-5A-081816 (460-118898-12), OB-7-081816 (460-118898-13), OB-25-081816 (460-118898-14) and RW-5-081816 (460-118898-15) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 08/24/2016.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

ANIONS

Samples FB-02-081816 (460-118898-2), OB-20A-081816 (460-118898-3), OB-6-081816 (460-118898-4), OB-21-081816 (460-118898-5), Dup-02-081816 (460-118898-6), RW-6-081816 (460-118898-7), RW-7-081816 (460-118898-8), OB-5-081816 (460-118898-9), OB-20B-081816 (460-118898-10), RW-6A-081816 (460-118898-11), RW-5A-081816 (460-118898-12), OB-7-081816 (460-118898-13), OB-25-081816 (460-118898-14) and RW-5-081816 (460-118898-15) were analyzed for anions in accordance with EPA SW-846 Method 9056. The samples were analyzed on 08/22/2016, 08/23/2016, 08/24/2016, 08/30/2016 and 08/31/2016.

Sulfate failed the recovery criteria low for the MS/MSD of sample OB-25-081816MS/MSD (460-118898-14) in batch 460-386479.

Sulfate failed the recovery criteria low for the MS of sample OB-5-081816MS (460-118898-9) in batch 460-387892. Chloride failed the recovery criteria high.

Chloride failed the recovery criteria high for the MSD of sample OB-5-081816MSD (460-118898-9) in batch 460-387892.

Chloride failed the recovery criteria high for the MS of sample 460-119025-3 in batch 460-387602.

Sulfate failed the recovery criteria low for the MSD of sample 460-119025-3 in batch 460-387602. Chloride failed the recovery criteria high.

Refer to the QC report for details.

Samples OB-20A-081816 (460-118898-3)[10X], OB-6-081816 (460-118898-4)[5X], RW-6-081816 (460-118898-7)[10X], OB-5-081816 (460-118898-9)[50X], OB-20B-081816 (460-118898-10)[10X], RW-6A-081816 (460-118898-11)[10X], RW-5A-081816 (460-118898-12)[10X], OB-7-081816 (460-118898-13)[10X] and OB-25-081816 (460-118898-14)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the anions analysis.

All other quality control parameters were within the acceptance limits.

ALKALINITY

Samples FB-02-081816 (460-118898-2), OB-20A-081816 (460-118898-3), OB-6-081816 (460-118898-4), OB-21-081816 (460-118898-5), Dup-02-081816 (460-118898-6), RW-6-081816 (460-118898-7), RW-7-081816 (460-118898-8), OB-5-081816 (460-118898-9), OB-20B-081816 (460-118898-10), RW-6A-081816 (460-118898-11), RW-5A-081816 (460-118898-12), OB-7-081816 (460-118898-13), OB-25-081816 (460-118898-14) and RW-5-081816 (460-118898-15) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 08/30/2016 and 09/01/2016.

Job ID: 460-118898-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

No difficulties were encountered during the alkalinity analysis.

All quality control parameters were within the acceptance limits.

CYANIDE

Samples OB-20A-081816 (460-118898-3), OB-6-081816 (460-118898-4), OB-21-081816 (460-118898-5), Dup-02-081816 (460-118898-6), RW-6-081816 (460-118898-7), RW-7-081816 (460-118898-8), OB-5-081816 (460-118898-9), OB-20B-081816 (460-118898-10), RW-6A-081816 (460-118898-11), RW-5A-081816 (460-118898-12), OB-7-081816 (460-118898-13), OB-25-081816 (460-118898-14) and RW-5-081816 (460-118898-15) were analyzed for cyanide in accordance with EPA SW-846 Method 9012B (DKQP). The samples were prepared and analyzed on 08/29/2016.

No difficulties were encountered during the cyanide analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: TB-03-081816 — Lab Sample ID: 460-118898-1

No Detections.

Client Sample ID: FB-02-081816 — Lab Sample ID: 460-118898-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.4		1.0	0.21	ug/L	1		8260C	Total/NA
Chloride	0.19		0.12	0.030	mg/L	1		9056A	Total/NA

Client Sample ID: OB-20A-081816 — Lab Sample ID: 460-118898-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.11	J	0.20	0.079	ug/L	1		8270D SIM	Total/NA
Sulfate	0.92		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	4.62	D	1.20	0.30	mg/L	10		9056A	Total/NA
Arsenic	2.3		2.0	0.71	ug/L	2		6020A	Total/NA
Barium	138		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	554		8.0	3.0	ug/L	2		6020A	Total/NA
Lead	0.59	J	1.2	0.44	ug/L	2		6020A	Total/NA
Zinc	45.8		16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	65.4		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3500		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	2810		200	68.4	ug/L	2		6020A	Total/NA
Potassium	2130		200	74.8	ug/L	2		6020A	Total/NA
Calcium	23600		200	69.5	ug/L	2		6020A	Total/NA
Iron	25900		120	49.1	ug/L	2		6020A	Total/NA
Barium	120		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	494		8.0	3.0	ug/L	2		6020A	Dissolved
Zinc	9.6	J	16.0	6.5	ug/L	2		6020A	Dissolved
Sodium	3220		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	2490		200	68.4	ug/L	2		6020A	Dissolved
Potassium	2260		200	74.8	ug/L	2		6020A	Dissolved
Calcium	24900		200	69.5	ug/L	2		6020A	Dissolved
Iron	56.9	J	120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	82.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	82.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-6-081816 — Lab Sample ID: 460-118898-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.10	J	0.21	0.080	ug/L	1		8270D SIM	Total/NA
Sulfate	22.1		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	8.53	D	0.60	0.15	mg/L	5		9056A	Total/NA
Barium	17.0		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	9.5		4.0	1.5	ug/L	2		6020A	Total/NA
Copper	3.9	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	836		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	2.2	J	4.0	1.6	ug/L	2		6020A	Total/NA
Aluminum	19.0	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	15600		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	5250		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1860		200	74.8	ug/L	2		6020A	Total/NA
Calcium	20300		200	69.5	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: OB-6-081816 (Continued) — Lab Sample ID: 460-118898-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	12100		120	49.1	ug/L	2		6020A	Total/NA
Barium	15.6		4.0	1.5	ug/L	2		6020A	Dissolved
Cobalt	9.1		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	749		8.0	3.0	ug/L	2		6020A	Dissolved
Nickel	1.7	J	4.0	1.6	ug/L	2		6020A	Dissolved
Sodium	14500		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	4670		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1930		200	74.8	ug/L	2		6020A	Dissolved
Calcium	21100		200	69.5	ug/L	2		6020A	Dissolved
Iron	2980		120	49.1	ug/L	2		6020A	Dissolved
Cyanide, Total	0.0020	J	0.010	0.0020	mg/L	1		9012B	Total/NA
Bicarbonate Alkalinity as CaCO3	74.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	74.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-21-081816 — Lab Sample ID: 460-118898-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.74		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	7.79		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	9.3		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	1.9	J	4.0	1.5	ug/L	2		6020A	Total/NA
Chromium	1.5	J	4.0	1.5	ug/L	2		6020A	Total/NA
Copper	29.3		4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	219		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	4.2		4.0	1.6	ug/L	2		6020A	Total/NA
Lead	1.5		1.2	0.44	ug/L	2		6020A	Total/NA
Vanadium	1.5	J	4.0	1.4	ug/L	2		6020A	Total/NA
Zinc	7.7	J	16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	635		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3950		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	5410		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1020		200	74.8	ug/L	2		6020A	Total/NA
Calcium	11000		200	69.5	ug/L	2		6020A	Total/NA
Iron	1250		120	49.1	ug/L	2		6020A	Total/NA
Barium	3.5	J	4.0	1.5	ug/L	2		6020A	Dissolved
Sodium	3930		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	4520		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1030		200	74.8	ug/L	2		6020A	Dissolved
Calcium	11300		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	48.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	48.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: Dup-02-081816 — Lab Sample ID: 460-118898-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.67		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	7.70		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	9.2		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	1.8	J	4.0	1.5	ug/L	2		6020A	Total/NA
Chromium	1.6	J	4.0	1.5	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: Dup-02-081816 (Continued)

Lab Sample ID: 460-118898-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	25.8		4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	203		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	4.1		4.0	1.6	ug/L	2		6020A	Total/NA
Lead	1.5		1.2	0.44	ug/L	2		6020A	Total/NA
Vanadium	1.5	J	4.0	1.4	ug/L	2		6020A	Total/NA
Zinc	7.2	J	16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	618		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3900		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	5280		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1010		200	74.8	ug/L	2		6020A	Total/NA
Calcium	11200		200	69.5	ug/L	2		6020A	Total/NA
Iron	1160		120	49.1	ug/L	2		6020A	Total/NA
Barium	3.2	J	4.0	1.5	ug/L	2		6020A	Dissolved
Sodium	3880		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	4460		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1040		200	74.8	ug/L	2		6020A	Dissolved
Calcium	11300		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	44.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	44.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-6-081816

Lab Sample ID: 460-118898-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.64	J	1.0	0.24	ug/L	1		8260C	Total/NA
Benzene	1.9		1.0	0.090	ug/L	1		8260C	Total/NA
Chloroethane	10		1.0	0.37	ug/L	1		8260C	Total/NA
Cyclohexane	0.75	J	1.0	0.26	ug/L	1		8260C	Total/NA
Methylcyclohexane	0.75	J	1.0	0.22	ug/L	1		8260C	Total/NA
Pentachlorophenol	0.11	J	0.21	0.082	ug/L	1		8270D SIM	Total/NA
Bis(2-ethylhexyl) phthalate	0.93	J	2.1	0.77	ug/L	1		8270D	Total/NA
Sulfate	0.68		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	6.13	D	1.20	0.30	mg/L	10		9056A	Total/NA
Arsenic	1.2	J	2.0	0.71	ug/L	2		6020A	Total/NA
Barium	429		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	4.8		4.0	1.5	ug/L	2		6020A	Total/NA
Chromium	1.8	J	4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	7470		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	18.4	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	7580		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	14900		200	68.4	ug/L	2		6020A	Total/NA
Potassium	3090		200	74.8	ug/L	2		6020A	Total/NA
Calcium	80300		200	69.5	ug/L	2		6020A	Total/NA
Iron	43800		120	49.1	ug/L	2		6020A	Total/NA
Barium	261		4.0	1.5	ug/L	2		6020A	Dissolved
Cobalt	4.5		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	7420		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	7370		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	14600		200	68.4	ug/L	2		6020A	Dissolved
Potassium	3250		200	74.8	ug/L	2		6020A	Dissolved
Calcium	82000		200	69.5	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: RW-6-081816 (Continued) — Lab Sample ID: 460-118898-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	7640		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	304		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	304		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-7-081816 — Lab Sample ID: 460-118898-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.62		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	9.10		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	2.2	J	4.0	1.5	ug/L	2		6020A	Total/NA
Copper	2.7	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	15.8		8.0	3.0	ug/L	2		6020A	Total/NA
Lead	0.59	J	1.2	0.44	ug/L	2		6020A	Total/NA
Aluminum	295		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	4210		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	4570		200	68.4	ug/L	2		6020A	Total/NA
Potassium	953		200	74.8	ug/L	2		6020A	Total/NA
Calcium	12300		200	69.5	ug/L	2		6020A	Total/NA
Iron	1050		120	49.1	ug/L	2		6020A	Total/NA
Sodium	4070		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	3780		200	68.4	ug/L	2		6020A	Dissolved
Potassium	963		200	74.8	ug/L	2		6020A	Dissolved
Calcium	11800		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	40.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	40.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-5-081816 — Lab Sample ID: 460-118898-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.17	J	1.0	0.13	ug/L	1		8260C	Total/NA
Pentachlorophenol	0.11	J	0.21	0.080	ug/L	1		8270D SIM	Total/NA
Sulfate	7.61		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	89.9	D F1	6.00	1.50	mg/L	50		9056A	Total/NA
Barium	28.4		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	6.2		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	2430		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	2.3	J	4.0	1.6	ug/L	2		6020A	Total/NA
Sodium	34800		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	39200		200	68.4	ug/L	2		6020A	Total/NA
Potassium	3550		200	74.8	ug/L	2		6020A	Total/NA
Calcium	74200		200	69.5	ug/L	2		6020A	Total/NA
Iron	21100		120	49.1	ug/L	2		6020A	Total/NA
Barium	18.3		4.0	1.5	ug/L	2		6020A	Dissolved
Cobalt	5.4		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	2490		8.0	3.0	ug/L	2		6020A	Dissolved
Nickel	1.8	J	4.0	1.6	ug/L	2		6020A	Dissolved
Sodium	33900		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	38100		200	68.4	ug/L	2		6020A	Dissolved
Potassium	3820		200	74.8	ug/L	2		6020A	Dissolved
Calcium	78100		200	69.5	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: OB-5-081816 (Continued) — Lab Sample ID: 460-118898-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	5150		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	304		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	304		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-20B-081816 — Lab Sample ID: 460-118898-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.8		5.0	1.1	ug/L	1		8260C	Total/NA
Benzene	0.15	J	1.0	0.090	ug/L	1		8260C	Total/NA
Chloroethane	3.9		1.0	0.37	ug/L	1		8260C	Total/NA
Cyclohexane	1.0		1.0	0.26	ug/L	1		8260C	Total/NA
Methylcyclohexane	0.66	J	1.0	0.22	ug/L	1		8260C	Total/NA
Pentachlorophenol	0.11	J	0.21	0.081	ug/L	1		8270D SIM	Total/NA
Naphthalene	2.5	J	10	0.84	ug/L	1		8270D	Total/NA
Chloride - DL	4.06	D	1.20	0.30	mg/L	10		9056A	Total/NA
Arsenic	1.6	J	2.0	0.71	ug/L	2		6020A	Total/NA
Barium	81.3		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	30.7		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	9820		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	5.8		4.0	1.6	ug/L	2		6020A	Total/NA
Aluminum	35.8	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	4920		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	11900		200	68.4	ug/L	2		6020A	Total/NA
Potassium	2780		200	74.8	ug/L	2		6020A	Total/NA
Calcium	57200		200	69.5	ug/L	2		6020A	Total/NA
Iron	44800		120	49.1	ug/L	2		6020A	Total/NA
Barium	41.9		4.0	1.5	ug/L	2		6020A	Dissolved
Cobalt	30.6		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	10300		8.0	3.0	ug/L	2		6020A	Dissolved
Nickel	5.1		4.0	1.6	ug/L	2		6020A	Dissolved
Sodium	5150		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	12300		200	68.4	ug/L	2		6020A	Dissolved
Potassium	3020		200	74.8	ug/L	2		6020A	Dissolved
Calcium	62600		200	69.5	ug/L	2		6020A	Dissolved
Iron	22700		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	241		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	241		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-6A-081816 — Lab Sample ID: 460-118898-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.30	J	1.0	0.24	ug/L	1		8260C	Total/NA
Acetone	9.1		5.0	1.1	ug/L	1		8260C	Total/NA
Benzene	8.0		1.0	0.090	ug/L	1		8260C	Total/NA
Chloroethane	5.7		1.0	0.37	ug/L	1		8260C	Total/NA
Cyclohexane	3.6		1.0	0.26	ug/L	1		8260C	Total/NA
Isopropylbenzene	5.0		1.0	0.32	ug/L	1		8260C	Total/NA
Methylcyclohexane	1.0		1.0	0.22	ug/L	1		8260C	Total/NA
Xylenes, Total	9.7		2.0	0.28	ug/L	1		8260C	Total/NA
Pentachlorophenol	0.12	J	0.21	0.080	ug/L	1		8270D SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RW-6A-081816 (Continued)

Lab Sample ID: 460-118898-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	8.2	J	10	0.83	ug/L	1		8270D	Total/NA
2-Methylnaphthalene	1.3	J	10	0.92	ug/L	1		8270D	Total/NA
N-Nitrosodiphenylamine	1.4	J	10	0.77	ug/L	1		8270D	Total/NA
Atrazine	1.8	J	2.1	0.80	ug/L	1		8270D	Total/NA
Sulfate	0.75		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	3.11	D	1.20	0.30	mg/L	10		9056A	Total/NA
Barium	47.2		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	20.3		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	14800		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	3.2	J	4.0	1.6	ug/L	2		6020A	Total/NA
Vanadium	2.2	J	4.0	1.4	ug/L	2		6020A	Total/NA
Aluminum	23.5	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	8240		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	22000		200	68.4	ug/L	2		6020A	Total/NA
Potassium	2780		200	74.8	ug/L	2		6020A	Total/NA
Calcium	86200		200	69.5	ug/L	2		6020A	Total/NA
Iron	23600		120	49.1	ug/L	2		6020A	Total/NA
Barium	29.4		4.0	1.5	ug/L	2		6020A	Dissolved
Cobalt	19.3		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	14800		8.0	3.0	ug/L	2		6020A	Dissolved
Nickel	3.2	J	4.0	1.6	ug/L	2		6020A	Dissolved
Sodium	8190		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	21500		200	68.4	ug/L	2		6020A	Dissolved
Potassium	3010		200	74.8	ug/L	2		6020A	Dissolved
Calcium	91000		200	69.5	ug/L	2		6020A	Dissolved
Iron	7170		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	352		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	352		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-5A-081816

Lab Sample ID: 460-118898-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Atrazine	1.5	J	2.1	0.80	ug/L	1		8270D	Total/NA
Sulfate	9.19		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	3.69	D	1.20	0.30	mg/L	10		9056A	Total/NA
Arsenic	0.97	J	2.0	0.71	ug/L	2		6020A	Total/NA
Barium	17.8		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	678		8.0	3.0	ug/L	2		6020A	Total/NA
Zinc	6.8	J	16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	65.9		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	6330		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	7340		200	68.4	ug/L	2		6020A	Total/NA
Potassium	7850		200	74.8	ug/L	2		6020A	Total/NA
Calcium	58500		200	69.5	ug/L	2		6020A	Total/NA
Iron	306		120	49.1	ug/L	2		6020A	Total/NA
Arsenic	1.3	J	2.0	0.71	ug/L	2		6020A	Dissolved
Barium	17.8		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	675		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	6140		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	7290		200	68.4	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: RW-5A-081816 (Continued) — Lab Sample ID: 460-118898-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	8540		200	74.8	ug/L	2		6020A	Dissolved
Calcium	62500		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	191		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	191		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-7-081816 — Lab Sample ID: 460-118898-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.10	J	0.21	0.081	ug/L	1		8270D SIM	Total/NA
Sulfate	8.10		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	3.59	D	1.20	0.30	mg/L	10		9056A	Total/NA
Barium	18.1		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	2.9	J	4.0	1.5	ug/L	2		6020A	Total/NA
Copper	3.3	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	2710		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	2.1	J	4.0	1.6	ug/L	2		6020A	Total/NA
Sodium	10600		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	30500		200	68.4	ug/L	2		6020A	Total/NA
Potassium	2810		200	74.8	ug/L	2		6020A	Total/NA
Calcium	69900		200	69.5	ug/L	2		6020A	Total/NA
Iron	2360		120	49.1	ug/L	2		6020A	Total/NA
Barium	17.8		4.0	1.5	ug/L	2		6020A	Dissolved
Cobalt	2.6	J	4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	2670		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	10400		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	29500		200	68.4	ug/L	2		6020A	Dissolved
Potassium	3080		200	74.8	ug/L	2		6020A	Dissolved
Calcium	73900		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	310		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	310		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: OB-25-081816 — Lab Sample ID: 460-118898-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Di-n-butyl phthalate	1.5	J	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.8	J	2.1	0.75	ug/L	1		8270D	Total/NA
Sulfate	18.9		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL2	108	D	12.0	3.00	mg/L	100		9056A	Total/NA
Arsenic	0.97	J	2.0	0.71	ug/L	2		6020A	Total/NA
Barium	45.6		4.0	1.5	ug/L	2		6020A	Total/NA
Cadmium	0.82	J	2.0	0.72	ug/L	2		6020A	Total/NA
Cobalt	2.0	J	4.0	1.5	ug/L	2		6020A	Total/NA
Chromium	1.6	J	4.0	1.5	ug/L	2		6020A	Total/NA
Copper	20.0		4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	178		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	3.5	J	4.0	1.6	ug/L	2		6020A	Total/NA
Lead	6.8		1.2	0.44	ug/L	2		6020A	Total/NA
Vanadium	2.7	J	4.0	1.4	ug/L	2		6020A	Total/NA
Zinc	28.6		16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	804		40.0	13.5	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: OB-25-081816 (Continued)

Lab Sample ID: 460-118898-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	71300		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	9930		200	68.4	ug/L	2		6020A	Total/NA
Potassium	7350		200	74.8	ug/L	2		6020A	Total/NA
Calcium	42900		200	69.5	ug/L	2		6020A	Total/NA
Iron	1260		120	49.1	ug/L	2		6020A	Total/NA
Barium	34.2		4.0	1.5	ug/L	2		6020A	Dissolved
Copper	78.9		4.0	1.6	ug/L	2		6020A	Dissolved
Manganese	5.0	J	8.0	3.0	ug/L	2		6020A	Dissolved
Zinc	8.7	J	16.0	6.5	ug/L	2		6020A	Dissolved
Sodium	67600		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	9310		200	68.4	ug/L	2		6020A	Dissolved
Potassium	7940		200	74.8	ug/L	2		6020A	Dissolved
Calcium	44000		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	137		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	137		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-5-081816

Lab Sample ID: 460-118898-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroethane	2.6		1.0	0.37	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	1.5	J	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	2.3		2.1	0.75	ug/L	1		8270D	Total/NA
Chloride	2.20		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	20.0		0.60	0.11	mg/L	1		9056A	Total/NA
Arsenic	8.0		2.0	0.71	ug/L	2		6020A	Total/NA
Barium	5.9		4.0	1.5	ug/L	2		6020A	Total/NA
Copper	3.8	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	60.5		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	2.1	J	4.0	1.6	ug/L	2		6020A	Total/NA
Lead	1.5		1.2	0.44	ug/L	2		6020A	Total/NA
Vanadium	1.6	J	4.0	1.4	ug/L	2		6020A	Total/NA
Zinc	24.9		16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	168		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	57700		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	793		200	68.4	ug/L	2		6020A	Total/NA
Potassium	76500		200	74.8	ug/L	2		6020A	Total/NA
Calcium	10100		200	69.5	ug/L	2		6020A	Total/NA
Iron	506		120	49.1	ug/L	2		6020A	Total/NA
Arsenic	7.9		2.0	0.71	ug/L	2		6020A	Dissolved
Barium	4.3		4.0	1.5	ug/L	2		6020A	Dissolved
Copper	4.5		4.0	1.6	ug/L	2		6020A	Dissolved
Manganese	5.4	J	8.0	3.0	ug/L	2		6020A	Dissolved
Nickel	1.7	J	4.0	1.6	ug/L	2		6020A	Dissolved
Vanadium	1.5	J	4.0	1.4	ug/L	2		6020A	Dissolved
Aluminum	48.3		40.0	13.5	ug/L	2		6020A	Dissolved
Sodium	55900		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	408		200	68.4	ug/L	2		6020A	Dissolved
Potassium	81300		200	74.8	ug/L	2		6020A	Dissolved
Calcium	8450		200	69.5	ug/L	2		6020A	Dissolved
Iron	77.4	J	120	49.1	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: RW-5-081816 (Continued)

Lab Sample ID: 460-118898-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	22.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	227		5.0	5.0	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-03-081816

Date Collected: 08/18/16 00:00
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-1

Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 13:34	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 13:34	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*		*08/24/16 13:34*	*1*
4-Bromofluorobenzene	*99*		*70 - 130*		*08/24/16 13:34*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 13:18	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 13:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 13:18	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 13:18	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 13:18	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 13:18	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 13:18	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 13:18	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 13:18	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 13:18	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 13:18	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 13:18	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 13:18	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 13:18	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 13:18	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 13:18	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 13:18	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 13:18	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 13:18	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 13:18	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 13:18	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 13:18	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 13:18	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 13:18	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 13:18	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 13:18	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 13:18	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 13:18	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 13:18	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 13:18	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 13:18	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 13:18	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 13:18	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 13:18	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 13:18	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 13:18	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 13:18	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 13:18	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 13:18	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 13:18	1

Client Sample ID: TB-03-081816

Date Collected: 08/18/16 00:00
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 13:18	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 13:18	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 13:18	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 13:18	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 13:18	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 13:18	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 13:18	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 13:18	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 13:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*08/24/16 13:18*	*1*
4-Bromofluorobenzene	*106*		*70 - 130*		*08/24/16 13:18*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*08/24/16 13:18*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*08/24/16 13:18*	*1*

Client Sample ID: FB-02-081816

Date Collected: 08/18/16 08:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-2
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 13:59	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 13:59	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 13:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*08/24/16 13:59*	*1*
4-Bromofluorobenzene	*92*		*70 - 130*		*08/24/16 13:59*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 13:45	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 13:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 13:45	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 13:45	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 13:45	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 13:45	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 13:45	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 13:45	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 13:45	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 13:45	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 13:45	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 13:45	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 13:45	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 13:45	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 13:45	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 13:45	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 13:45	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: FB-02-081816
Date Collected: 08/18/16 08:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 13:45	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 13:45	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 13:45	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 13:45	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 13:45	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 13:45	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 13:45	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 13:45	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 13:45	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 13:45	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 13:45	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 13:45	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 13:45	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 13:45	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 13:45	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 13:45	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 13:45	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 13:45	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 13:45	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 13:45	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 13:45	1
Methylene Chloride	**1.4**		1.0	0.21	ug/L			08/24/16 13:45	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 13:45	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 13:45	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 13:45	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 13:45	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 13:45	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 13:45	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 13:45	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 13:45	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 13:45	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 13:45*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*08/24/16 13:45*	*1*
4-Bromofluorobenzene	*107*		*70 - 130*		*08/24/16 13:45*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*08/24/16 13:45*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*08/24/16 13:45*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/23/16 14:12	08/30/16 19:30	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/23/16 14:12	08/30/16 19:30	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/23/16 14:12	08/30/16 19:30	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/23/16 14:12	08/30/16 19:30	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/23/16 14:12	08/30/16 19:30	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		08/23/16 14:12	08/30/16 19:30	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/23/16 14:12	08/30/16 19:30	1

Client Sample ID: FB-02-081816
Date Collected: 08/18/16 08:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-2
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/23/16 14:12	08/30/16 19:30	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/23/16 14:12	08/28/16 11:53	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/23/16 14:12	08/28/16 11:53	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/23/16 14:12	08/28/16 11:53	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/23/16 14:12	08/28/16 11:53	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/23/16 14:12	08/28/16 11:53	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/23/16 14:12	08/28/16 11:53	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/23/16 14:12	08/28/16 11:53	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/23/16 14:12	08/28/16 11:53	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		08/23/16 14:12	08/28/16 11:53	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/23/16 14:12	08/28/16 11:53	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/23/16 14:12	08/28/16 11:53	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/23/16 14:12	08/28/16 11:53	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/23/16 14:12	08/28/16 11:53	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/23/16 14:12	08/28/16 11:53	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/23/16 14:12	08/28/16 11:53	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/23/16 14:12	08/28/16 11:53	1
Isophorone	0.67	U	10	0.67	ug/L		08/23/16 14:12	08/28/16 11:53	1
Naphthalene	0.80	U	10	0.80	ug/L		08/23/16 14:12	08/28/16 11:53	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/23/16 14:12	08/28/16 11:53	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/23/16 14:12	08/28/16 11:53	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/23/16 14:12	08/28/16 11:53	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/23/16 14:12	08/28/16 11:53	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/23/16 14:12	08/28/16 11:53	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/23/16 14:12	08/28/16 11:53	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/23/16 14:12	08/28/16 11:53	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/23/16 14:12	08/28/16 11:53	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/23/16 14:12	08/28/16 11:53	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/23/16 14:12	08/28/16 11:53	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/23/16 14:12	08/28/16 11:53	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/28/16 11:53	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/23/16 14:12	08/28/16 11:53	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 11:53	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/23/16 14:12	08/28/16 11:53	1
Fluorene	0.80	U	10	0.80	ug/L		08/23/16 14:12	08/28/16 11:53	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/23/16 14:12	08/28/16 11:53	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/23/16 14:12	08/28/16 11:53	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 11:53	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/23/16 14:12	08/28/16 11:53	1
Anthracene	0.57	U	10	0.57	ug/L		08/23/16 14:12	08/28/16 11:53	1
Carbazole	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/28/16 11:53	1
Di-n-butyl phthalate	0.82	U	10	0.82	ug/L		08/23/16 14:12	08/28/16 11:53	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 11:53	1
Pyrene	0.83	U	10	0.83	ug/L		08/23/16 14:12	08/28/16 11:53	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/23/16 14:12	08/28/16 11:53	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/23/16 14:12	08/28/16 11:53	1
Bis(2-ethylhexyl) phthalate	0.72	U	2.0	0.72	ug/L		08/23/16 14:12	08/28/16 11:53	1

Client Sample ID: FB-02-081816
Date Collected: 08/18/16 08:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/23/16 14:12	08/28/16 11:53	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/23/16 14:12	08/28/16 11:53	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/23/16 14:12	08/28/16 11:53	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/23/16 14:12	08/28/16 11:53	1
Acetophenone	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 11:53	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/23/16 14:12	08/28/16 11:53	1
Caprolactam	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 11:53	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/23/16 14:12	08/28/16 11:53	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/23/16 14:12	08/28/16 11:53	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/23/16 14:12	08/28/16 11:53	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/23/16 14:12	08/28/16 11:53	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 11:53	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/23/16 14:12	08/28/16 11:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*79*		*30 - 130*	*08/23/16 14:12*	*08/28/16 11:53*	*1*
Phenol-d5 (Surr)	*27*		*15 - 110*	*08/23/16 14:12*	*08/28/16 11:53*	*1*
Terphenyl-d14 (Surr)	*77*		*30 - 130*	*08/23/16 14:12*	*08/28/16 11:53*	*1*
2,4,6-Tribromophenol (Surr)	*124*	*X*	*15 - 110*	*08/23/16 14:12*	*08/28/16 11:53*	*1*
2-Fluorophenol (Surr)	*41*		*15 - 110*	*08/23/16 14:12*	*08/28/16 11:53*	*1*
2-Fluorobiphenyl	*81*		*30 - 130*	*08/23/16 14:12*	*08/28/16 11:53*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:55	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:55	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:55	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:55	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:55	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 14:55	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 14:55	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 14:55	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 14:55	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*30 - 150*	*08/23/16 19:58*	*08/24/16 14:55*	*1*
DCB Decachlorobiphenyl	*94*		*30 - 150*	*08/23/16 19:58*	*08/24/16 14:55*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**0.19**		0.12	0.030	mg/L			08/22/16 18:08	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/22/16 18:08	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:28	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 20:30	08/27/16 20:28	2
Barium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:28	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 20:28	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 20:28	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: FB-02-081816
Date Collected: 08/18/16 08:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-2
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:28	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:28	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:28	2
Manganese	3.0	U	8.0	3.0	ug/L		08/26/16 20:30	08/27/16 20:28	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:28	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 20:28	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 20:28	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 20:28	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 20:28	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 20:28	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 20:30	08/27/16 20:28	2
Sodium	87.6	U	200	87.6	ug/L		08/26/16 20:30	08/27/16 20:28	2
Magnesium	68.4	U	200	68.4	ug/L		08/26/16 20:30	08/27/16 20:28	2
Potassium	74.8	U	200	74.8	ug/L		08/26/16 20:30	08/27/16 20:28	2
Calcium	69.5	U	200	69.5	ug/L		08/26/16 20:30	08/27/16 20:28	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 20:30	08/27/16 20:28	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 20:28	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:09	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 11:21	08/29/16 15:09	2
Barium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	09/01/16 09:16	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 11:21	08/29/16 15:09	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 11:21	08/29/16 15:09	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:09	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:09	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 15:09	2
Manganese	3.0	U	8.0	3.0	ug/L		08/29/16 11:21	08/29/16 15:09	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 15:09	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 11:21	08/29/16 15:09	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 11:21	08/29/16 15:09	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 11:21	08/29/16 15:09	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 11:21	08/29/16 15:09	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 11:21	08/29/16 15:09	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 11:21	08/29/16 15:09	2
Sodium	87.6	U	200	87.6	ug/L		08/29/16 11:21	08/29/16 15:09	2
Magnesium	68.4	U	200	68.4	ug/L		08/29/16 11:21	08/29/16 15:09	2
Potassium	74.8	U	200	74.8	ug/L		08/29/16 11:21	09/01/16 09:16	2
Calcium	69.5	U	200	69.5	ug/L		08/29/16 11:21	08/29/16 15:09	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 11:21	08/29/16 15:09	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 11:21	08/29/16 15:09	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 11:57	08/24/16 14:17	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:00	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: FB-02-081816

Lab Sample ID: 460-118898-2

Date Collected: 08/18/16 08:30

Matrix: Water

Date Received: 08/19/16 11:10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			08/30/16 10:00	1
Alkalinity	5.0	U	5.0	5.0	mg/L			08/30/16 10:00	1

Client Sample ID: OB-20A-081816

Lab Sample ID: 460-118898-3

Date Collected: 08/18/16 09:55

Matrix: Water

Date Received: 08/19/16 11:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 14:49	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 14:49	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 14:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/24/16 14:49*	*1*
4-Bromofluorobenzene	*100*		*70 - 130*		*08/24/16 14:49*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 15:05	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 15:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 15:05	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 15:05	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 15:05	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 15:05	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 15:05	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 15:05	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 15:05	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 15:05	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 15:05	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 15:05	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 15:05	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 15:05	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 15:05	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 15:05	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 15:05	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 15:05	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 15:05	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 15:05	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 15:05	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 15:05	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 15:05	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 15:05	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 15:05	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 15:05	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 15:05	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 15:05	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 15:05	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 15:05	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 15:05	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: OB-20A-081816
Date Collected: 08/18/16 09:55
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 15:05	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 15:05	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 15:05	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 15:05	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 15:05	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 15:05	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 15:05	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 15:05	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 15:05	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 15:05	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 15:05	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 15:05	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 15:05	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 15:05	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 15:05	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 15:05	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 15:05	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 15:05*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*08/24/16 15:05*	*1*
4-Bromofluorobenzene	*117*		*70 - 130*		*08/24/16 15:05*	*1*
Dibromofluoromethane (Surr)	*112*		*70 - 130*		*08/24/16 15:05*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/24/16 15:05*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.038	U	0.051	0.038	ug/L		08/23/16 14:12	08/30/16 17:00	1
Benzo[a]pyrene	0.027	U	0.051	0.027	ug/L		08/23/16 14:12	08/30/16 17:00	1
Benzo[b]fluoranthene	0.012	U	0.051	0.012	ug/L		08/23/16 14:12	08/30/16 17:00	1
Bis(2-chloroethyl)ether	0.0092	U	0.020	0.0092	ug/L		08/23/16 14:12	08/30/16 17:00	1
Dibenz(a,h)anthracene	0.022	U	0.051	0.022	ug/L		08/23/16 14:12	08/30/16 17:00	1
Hexachlorobenzene	0.0092	U	0.020	0.0092	ug/L		08/23/16 14:12	08/30/16 17:00	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.051	0.028	ug/L		08/23/16 14:12	08/30/16 17:00	1
Pentachlorophenol	**0.11**	**J**	0.20	0.079	ug/L		08/23/16 14:12	08/30/16 17:00	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.42	U	10	0.42	ug/L		08/23/16 14:12	08/28/16 12:14	1
2-Chlorophenol	0.76	U	10	0.76	ug/L		08/23/16 14:12	08/28/16 12:14	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/23/16 14:12	08/28/16 12:14	1
4-Methylphenol	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 12:14	1
2-Nitrophenol	0.60	U	10	0.60	ug/L		08/23/16 14:12	08/28/16 12:14	1
2,4-Dimethylphenol	0.93	U	10	0.93	ug/L		08/23/16 14:12	08/28/16 12:14	1
2,4-Dichlorophenol	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 12:14	1
4-Chloro-3-methylphenol	0.78	U	10	0.78	ug/L		08/23/16 14:12	08/28/16 12:14	1
2,4,6-Trichlorophenol	0.54	U	10	0.54	ug/L		08/23/16 14:12	08/28/16 12:14	1
2,4,5-Trichlorophenol	0.50	U	10	0.50	ug/L		08/23/16 14:12	08/28/16 12:14	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: OB-20A-081816
Date Collected: 08/18/16 09:55
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	1.1	U	2.0	1.1	ug/L		08/23/16 14:12	08/28/16 12:14	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/23/16 14:12	08/28/16 12:14	1
4,6-Dinitro-2-methylphenol	2.1	U	20	2.1	ug/L		08/23/16 14:12	08/28/16 12:14	1
N-Nitrosodi-n-propylamine	0.85	U	1.0	0.85	ug/L		08/23/16 14:12	08/28/16 12:14	1
Hexachloroethane	0.092	U	1.0	0.092	ug/L		08/23/16 14:12	08/28/16 12:14	1
Nitrobenzene	0.50	U	1.0	0.50	ug/L		08/23/16 14:12	08/28/16 12:14	1
Isophorone	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 12:14	1
Naphthalene	0.82	U	10	0.82	ug/L		08/23/16 14:12	08/28/16 12:14	1
4-Chloroaniline	0.74	U	10	0.74	ug/L		08/23/16 14:12	08/28/16 12:14	1
Hexachlorobutadiene	0.78	U	1.0	0.78	ug/L		08/23/16 14:12	08/28/16 12:14	1
2-Methylnaphthalene	0.90	U	10	0.90	ug/L		08/23/16 14:12	08/28/16 12:14	1
Hexachlorocyclopentadiene	0.62	U	10	0.62	ug/L		08/23/16 14:12	08/28/16 12:14	1
2-Chloronaphthalene	0.62	U	10	0.62	ug/L		08/23/16 14:12	08/28/16 12:14	1
2-Nitroaniline	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 12:14	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 12:14	1
Acenaphthylene	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 12:14	1
2,6-Dinitrotoluene	0.90	U	2.0	0.90	ug/L		08/23/16 14:12	08/28/16 12:14	1
3-Nitroaniline	0.84	U	10	0.84	ug/L		08/23/16 14:12	08/28/16 12:14	1
Acenaphthene	0.90	U	10	0.90	ug/L		08/23/16 14:12	08/28/16 12:14	1
Dibenzofuran	0.87	U	10	0.87	ug/L		08/23/16 14:12	08/28/16 12:14	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/23/16 14:12	08/28/16 12:14	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 12:14	1
4-Chlorophenyl phenyl ether	0.98	U	10	0.98	ug/L		08/23/16 14:12	08/28/16 12:14	1
Fluorene	0.82	U	10	0.82	ug/L		08/23/16 14:12	08/28/16 12:14	1
4-Nitroaniline	0.49	U	10	0.49	ug/L		08/23/16 14:12	08/28/16 12:14	1
N-Nitrosodiphenylamine	0.76	U	10	0.76	ug/L		08/23/16 14:12	08/28/16 12:14	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 12:14	1
Phenanthrene	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 12:14	1
Anthracene	0.58	U	10	0.58	ug/L		08/23/16 14:12	08/28/16 12:14	1
Carbazole	0.87	U	10	0.87	ug/L		08/23/16 14:12	08/28/16 12:14	1
Di-n-butyl phthalate	0.84	U	10	0.84	ug/L		08/23/16 14:12	08/28/16 12:14	1
Fluoranthene	0.73	U	10	0.73	ug/L		08/23/16 14:12	08/28/16 12:14	1
Pyrene	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/28/16 12:14	1
Butyl benzyl phthalate	0.61	U	10	0.61	ug/L		08/23/16 14:12	08/28/16 12:14	1
Chrysene	0.68	U	2.0	0.68	ug/L		08/23/16 14:12	08/28/16 12:14	1
Bis(2-ethylhexyl) phthalate	0.73	U	2.0	0.73	ug/L		08/23/16 14:12	08/28/16 12:14	1
Di-n-octyl phthalate	0.70	U	10	0.70	ug/L		08/23/16 14:12	08/28/16 12:14	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/23/16 14:12	08/28/16 12:14	1
Benzo[g,h,i]perylene	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 12:14	1
1,1'-Biphenyl	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 12:14	1
Acetophenone	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 12:14	1
Benzaldehyde	0.88	U	10	0.88	ug/L		08/23/16 14:12	08/28/16 12:14	1
Caprolactam	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 12:14	1
Atrazine	0.79	U	2.0	0.79	ug/L		08/23/16 14:12	08/28/16 12:14	1
2,2'-oxybis[1-chloropropane]	0.95	U	10	0.95	ug/L		08/23/16 14:12	08/28/16 12:14	1
1,2,4,5-Tetrachlorobenzene	0.44	U	10	0.44	ug/L		08/23/16 14:12	08/28/16 12:14	1
2,3,4,6-Tetrachlorophenol	0.70	U	10	0.70	ug/L		08/23/16 14:12	08/28/16 12:14	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 12:14	1
Bis(2-chloroethoxy)methane	0.70	U	10	0.70	ug/L		08/23/16 14:12	08/28/16 12:14	1

Client Sample ID: OB-20A-081816

Date Collected: 08/18/16 09:55
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-3

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	83		30 - 130	08/23/16 14:12	08/28/16 12:14	1
Phenol-d5 (Surr)	31		15 - 110	08/23/16 14:12	08/28/16 12:14	1
Terphenyl-d14 (Surr)	83		30 - 130	08/23/16 14:12	08/28/16 12:14	1
2,4,6-Tribromophenol (Surr)	124	X	15 - 110	08/23/16 14:12	08/28/16 12:14	1
2-Fluorophenol (Surr)	45		15 - 110	08/23/16 14:12	08/28/16 12:14	1
2-Fluorobiphenyl	78		30 - 130	08/23/16 14:12	08/28/16 12:14	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:12	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:12	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:12	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:12	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:12	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:12	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 15:12	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 15:12	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 15:12	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 15:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		30 - 150	08/23/16 19:58	08/24/16 15:12	1
DCB Decachlorobiphenyl	93		30 - 150	08/23/16 19:58	08/24/16 15:12	1

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**0.92**		0.60	0.11	mg/L			08/22/16 18:26	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.62**	**D**	1.20	0.30	mg/L			08/30/16 16:30	10

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:31	2
Arsenic	**2.3**		2.0	0.71	ug/L		08/26/16 20:30	08/27/16 20:31	2
Barium	**138**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:31	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 20:31	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 20:31	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:31	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:31	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:31	2
Manganese	**554**		8.0	3.0	ug/L		08/26/16 20:30	08/27/16 20:31	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:31	2
Lead	**0.59**	**J**	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 20:31	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 20:31	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 20:31	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 20:31	2
Zinc	**45.8**		16.0	6.5	ug/L		08/26/16 20:30	08/27/16 20:31	2
Aluminum	**65.4**		40.0	13.5	ug/L		08/26/16 20:30	08/27/16 20:31	2
Sodium	**3500**		200	87.6	ug/L		08/26/16 20:30	08/27/16 20:31	2

Client Sample ID: OB-20A-081816

Date Collected: 08/18/16 09:55
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-3

Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	**2810**		200	68.4	ug/L		08/26/16 20:30	08/27/16 20:31	2
Potassium	**2130**		200	74.8	ug/L		08/26/16 20:30	08/27/16 20:31	2
Calcium	**23600**		200	69.5	ug/L		08/26/16 20:30	08/27/16 20:31	2
Iron	**25900**		120	49.1	ug/L		08/26/16 20:30	08/27/16 20:31	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 20:31	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:15	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 11:21	08/29/16 15:15	2
Barium	**120**		4.0	1.5	ug/L		08/29/16 11:21	09/01/16 09:22	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 11:21	08/29/16 15:15	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 11:21	08/29/16 15:15	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:15	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:15	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 15:15	2
Manganese	**494**		8.0	3.0	ug/L		08/29/16 11:21	08/29/16 15:15	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 15:15	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 11:21	08/29/16 15:15	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 11:21	08/29/16 15:15	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 11:21	08/29/16 15:15	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 11:21	08/29/16 15:15	2
Zinc	**9.6**	**J**	16.0	6.5	ug/L		08/29/16 11:21	08/29/16 15:15	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 11:21	08/29/16 15:15	2
Sodium	**3220**		200	87.6	ug/L		08/29/16 11:21	08/29/16 15:15	2
Magnesium	**2490**		200	68.4	ug/L		08/29/16 11:21	08/29/16 15:15	2
Potassium	**2260**		200	74.8	ug/L		08/29/16 11:21	09/01/16 09:22	2
Calcium	**24900**		200	69.5	ug/L		08/29/16 11:21	08/29/16 15:15	2
Iron	**56.9**	**J**	120	49.1	ug/L		08/29/16 11:21	08/29/16 15:15	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 11:21	08/29/16 15:15	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 11:57	08/24/16 14:19	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 15:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:34	1
Bicarbonate Alkalinity as CaCO3	**82.4**		5.0	5.0	mg/L			08/30/16 10:00	1
Alkalinity	**82.4**		5.0	5.0	mg/L			08/30/16 10:00	1

Client Sample ID: OB-6-081816
Date Collected: 08/18/16 10:20
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-4
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 16:55	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 16:55	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*08/24/16 16:55*	*1*
4-Bromofluorobenzene	*92*		*70 - 130*		*08/24/16 16:55*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 14:12	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 14:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 14:12	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 14:12	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 14:12	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 14:12	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 14:12	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 14:12	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 14:12	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 14:12	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 14:12	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 14:12	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 14:12	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 14:12	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 14:12	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 14:12	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 14:12	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 14:12	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 14:12	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 14:12	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 14:12	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 14:12	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 14:12	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 14:12	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 14:12	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 14:12	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 14:12	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 14:12	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 14:12	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 14:12	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 14:12	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 14:12	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 14:12	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 14:12	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 14:12	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 14:12	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 14:12	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 14:12	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 14:12	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 14:12	1

Client Sample ID: OB-6-081816

Date Collected: 08/18/16 10:20
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 14:12	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 14:12	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 14:12	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 14:12	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 14:12	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 14:12	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 14:12	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 14:12	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 14:12*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*08/24/16 14:12*	*1*
4-Bromofluorobenzene	*110*		*70 - 130*		*08/24/16 14:12*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*08/24/16 14:12*	*1*
Toluene-d8 (Surr)	*93*		*70 - 130*		*08/24/16 14:12*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/23/16 14:12	08/30/16 16:01	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/23/16 14:12	08/30/16 16:01	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/23/16 14:12	08/30/16 16:01	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/30/16 16:01	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/23/16 14:12	08/30/16 16:01	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/30/16 16:01	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/23/16 14:12	08/30/16 16:01	1
Pentachlorophenol	**0.10**	**J**	0.21	0.080	ug/L		08/23/16 14:12	08/30/16 16:01	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/23/16 14:12	08/28/16 11:31	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 11:31	1
2-Methylphenol	1.3	U F1 *	10	1.3	ug/L		08/23/16 14:12	08/28/16 11:31	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/23/16 14:12	08/28/16 11:31	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/23/16 14:12	08/28/16 11:31	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/23/16 14:12	08/28/16 11:31	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 11:31	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/23/16 14:12	08/28/16 11:31	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/23/16 14:12	08/28/16 11:31	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/23/16 14:12	08/28/16 11:31	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/23/16 14:12	08/28/16 11:31	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/23/16 14:12	08/28/16 11:31	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/23/16 14:12	08/28/16 11:31	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/23/16 14:12	08/28/16 11:31	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/23/16 14:12	08/28/16 11:31	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/23/16 14:12	08/28/16 11:31	1
Isophorone	0.70	U	10	0.70	ug/L		08/23/16 14:12	08/28/16 11:31	1
Naphthalene	0.83	U	10	0.83	ug/L		08/23/16 14:12	08/28/16 11:31	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/23/16 14:12	08/28/16 11:31	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: OB-6-081816
Date Collected: 08/18/16 10:20
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/23/16 14:12	08/28/16 11:31	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 11:31	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 11:31	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 11:31	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 11:31	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 11:31	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 11:31	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/23/16 14:12	08/28/16 11:31	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/28/16 11:31	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 11:31	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 11:31	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/23/16 14:12	08/28/16 11:31	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 11:31	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 11:31	1
Fluorene	0.83	U	10	0.83	ug/L		08/23/16 14:12	08/28/16 11:31	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/23/16 14:12	08/28/16 11:31	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 11:31	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 11:31	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 11:31	1
Anthracene	0.59	U	10	0.59	ug/L		08/23/16 14:12	08/28/16 11:31	1
Carbazole	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 11:31	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/28/16 11:31	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/23/16 14:12	08/28/16 11:31	1
Pyrene	0.86	U	10	0.86	ug/L		08/23/16 14:12	08/28/16 11:31	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/23/16 14:12	08/28/16 11:31	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/23/16 14:12	08/28/16 11:31	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/23/16 14:12	08/28/16 11:31	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 11:31	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/23/16 14:12	08/28/16 11:31	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/23/16 14:12	08/28/16 11:31	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 11:31	1
Acetophenone	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 11:31	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/23/16 14:12	08/28/16 11:31	1
Caprolactam	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 11:31	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/23/16 14:12	08/28/16 11:31	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/23/16 14:12	08/28/16 11:31	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/23/16 14:12	08/28/16 11:31	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 11:31	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 11:31	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 11:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*85*		*30 - 130*	*08/23/16 14:12*	*08/28/16 11:31*	*1*
Phenol-d5 (Surr)	*28*		*15 - 110*	*08/23/16 14:12*	*08/28/16 11:31*	*1*
Terphenyl-d14 (Surr)	*88*		*30 - 130*	*08/23/16 14:12*	*08/28/16 11:31*	*1*
2,4,6-Tribromophenol (Surr)	*120*	*X*	*15 - 110*	*08/23/16 14:12*	*08/28/16 11:31*	*1*
2-Fluorophenol (Surr)	*42*		*15 - 110*	*08/23/16 14:12*	*08/28/16 11:31*	*1*
2-Fluorobiphenyl	*78*		*30 - 130*	*08/23/16 14:12*	*08/28/16 11:31*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: OB-6-081816
Date Collected: 08/18/16 10:20
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-4
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:43	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:43	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:43	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:43	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:43	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:43	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 08:43	1
PCB-1260	0.084	U F1	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 08:43	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 08:43	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 08:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*60*		*30 - 150*	*08/23/16 19:58*	*08/24/16 08:43*	*1*
DCB Decachlorobiphenyl	*109*		*30 - 150*	*08/23/16 19:58*	*08/24/16 08:43*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**22.1**		0.60	0.11	mg/L			08/22/16 18:45	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.53**	**D**	0.60	0.15	mg/L			08/23/16 10:56	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:06	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 20:30	08/27/16 19:06	2
Barium	**17.0**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:06	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 19:06	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 19:06	2
Cobalt	**9.5**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:06	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 19:06	2
Copper	**3.9**	**J**	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:06	2
Manganese	**836**		8.0	3.0	ug/L		08/26/16 20:30	08/27/16 19:06	2
Nickel	**2.2**	**J**	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 19:06	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 19:06	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 19:06	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 19:06	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 19:06	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 19:06	2
Aluminum	**19.0**	**J**	40.0	13.5	ug/L		08/26/16 20:30	08/27/16 19:06	2
Sodium	**15600**		200	87.6	ug/L		08/26/16 20:30	08/27/16 19:06	2
Magnesium	**5250**		200	68.4	ug/L		08/26/16 20:30	08/27/16 19:06	2
Potassium	**1860**		200	74.8	ug/L		08/26/16 20:30	08/27/16 19:06	2
Calcium	**20300**		200	69.5	ug/L		08/26/16 20:30	08/27/16 19:06	2
Iron	**12100**		120	49.1	ug/L		08/26/16 20:30	08/27/16 19:06	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 19:06	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U F1	2.0	1.5	ug/L		08/29/16 11:21	08/29/16 14:58	2

Client Sample ID: OB-6-081816

Lab Sample ID: 460-118898-4

Date Collected: 08/18/16 10:20

Matrix: Water

Date Received: 08/19/16 11:10

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 11:21	08/29/16 14:58	2
Barium	**15.6**		4.0	1.5	ug/L		08/29/16 11:21	09/01/16 09:04	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 11:21	08/29/16 14:58	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 11:21	08/29/16 14:58	2
Cobalt	**9.1**		4.0	1.5	ug/L		08/29/16 11:21	08/29/16 14:58	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 14:58	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 14:58	2
Manganese	**749**		8.0	3.0	ug/L		08/29/16 11:21	08/29/16 14:58	2
Nickel	**1.7**	**J**	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 14:58	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 11:21	08/29/16 14:58	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 11:21	08/29/16 14:58	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 11:21	08/29/16 14:58	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 11:21	08/29/16 14:58	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 11:21	08/29/16 14:58	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 11:21	08/29/16 14:58	2
Sodium	**14500**		200	87.6	ug/L		08/29/16 11:21	08/29/16 14:58	2
Magnesium	**4670**		200	68.4	ug/L		08/29/16 11:21	08/29/16 14:58	2
Potassium	**1930**		200	74.8	ug/L		08/29/16 11:21	09/01/16 09:04	2
Calcium	**21100**		200	69.5	ug/L		08/29/16 11:21	08/29/16 14:58	2
Iron	**2980**		120	49.1	ug/L		08/29/16 11:21	08/29/16 14:58	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 11:21	08/29/16 14:58	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 11:57	08/24/16 13:56	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 14:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0020**	**J**	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:32	1
Bicarbonate Alkalinity as CaCO3	**74.4**		5.0	5.0	mg/L			08/30/16 10:00	1
Alkalinity	**74.4**		5.0	5.0	mg/L			08/30/16 10:00	1

Client Sample ID: OB-21-081816

Lab Sample ID: 460-118898-5

Date Collected: 08/18/16 10:30

Matrix: Water

Date Received: 08/19/16 11:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 17:20	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 17:20	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 17:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/24/16 17:20*	*1*
4-Bromofluorobenzene	*101*		*70 - 130*		*08/24/16 17:20*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: OB-21-081816
Date Collected: 08/18/16 10:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 17:20	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 17:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 17:20	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 17:20	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 17:20	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 17:20	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 17:20	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 17:20	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 17:20	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 17:20	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 17:20	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 17:20	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 17:20	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 17:20	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 17:20	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 17:20	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 17:20	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 17:20	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 17:20	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 17:20	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 17:20	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 17:20	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 17:20	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 17:20	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 17:20	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 17:20	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 17:20	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 17:20	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 17:20	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 17:20	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 17:20	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 17:20	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 17:20	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 17:20	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 17:20	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 17:20	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 17:20	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 17:20	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 17:20	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 17:20	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 17:20	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 17:20	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 17:20	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 17:20	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 17:20	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 17:20	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 17:20	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 17:20	1

Client Sample ID: OB-21-081816
Date Collected: 08/18/16 10:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-5
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/24/16 17:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		08/24/16 17:20	1
4-Bromofluorobenzene	109		70 - 130		08/24/16 17:20	1
Dibromofluoromethane (Surr)	108		70 - 130		08/24/16 17:20	1
Toluene-d8 (Surr)	92		70 - 130		08/24/16 17:20	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/23/16 14:12	08/30/16 17:29	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/23/16 14:12	08/30/16 17:29	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/23/16 14:12	08/30/16 17:29	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/30/16 17:29	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/23/16 14:12	08/30/16 17:29	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/30/16 17:29	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/23/16 14:12	08/30/16 17:29	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/23/16 14:12	08/30/16 17:29	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/23/16 14:12	08/28/16 12:35	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 12:35	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/23/16 14:12	08/28/16 12:35	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/23/16 14:12	08/28/16 12:35	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/23/16 14:12	08/28/16 12:35	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/23/16 14:12	08/28/16 12:35	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 12:35	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/23/16 14:12	08/28/16 12:35	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/23/16 14:12	08/28/16 12:35	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/23/16 14:12	08/28/16 12:35	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/23/16 14:12	08/28/16 12:35	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/23/16 14:12	08/28/16 12:35	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/23/16 14:12	08/28/16 12:35	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/23/16 14:12	08/28/16 12:35	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/23/16 14:12	08/28/16 12:35	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/23/16 14:12	08/28/16 12:35	1
Isophorone	0.70	U	10	0.70	ug/L		08/23/16 14:12	08/28/16 12:35	1
Naphthalene	0.83	U	10	0.83	ug/L		08/23/16 14:12	08/28/16 12:35	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/23/16 14:12	08/28/16 12:35	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/23/16 14:12	08/28/16 12:35	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 12:35	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 12:35	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 12:35	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 12:35	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 12:35	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 12:35	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/23/16 14:12	08/28/16 12:35	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/28/16 12:35	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 12:35	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 12:35	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: OB-21-081816
Date Collected: 08/18/16 10:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/23/16 14:12	08/28/16 12:35	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 12:35	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 12:35	1
Fluorene	0.83	U	10	0.83	ug/L		08/23/16 14:12	08/28/16 12:35	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/23/16 14:12	08/28/16 12:35	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 12:35	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 12:35	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 12:35	1
Anthracene	0.59	U	10	0.59	ug/L		08/23/16 14:12	08/28/16 12:35	1
Carbazole	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 12:35	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/28/16 12:35	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/23/16 14:12	08/28/16 12:35	1
Pyrene	0.86	U	10	0.86	ug/L		08/23/16 14:12	08/28/16 12:35	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/23/16 14:12	08/28/16 12:35	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/23/16 14:12	08/28/16 12:35	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/23/16 14:12	08/28/16 12:35	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 12:35	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/23/16 14:12	08/28/16 12:35	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/23/16 14:12	08/28/16 12:35	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 12:35	1
Acetophenone	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 12:35	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/23/16 14:12	08/28/16 12:35	1
Caprolactam	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 12:35	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/23/16 14:12	08/28/16 12:35	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/23/16 14:12	08/28/16 12:35	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/23/16 14:12	08/28/16 12:35	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 12:35	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 12:35	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 12:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*80*		*30 - 130*	*08/23/16 14:12*	*08/28/16 12:35*	*1*
Phenol-d5 (Surr)	*29*		*15 - 110*	*08/23/16 14:12*	*08/28/16 12:35*	*1*
Terphenyl-d14 (Surr)	*82*		*30 - 130*	*08/23/16 14:12*	*08/28/16 12:35*	*1*
2,4,6-Tribromophenol (Surr)	*120*	*X*	*15 - 110*	*08/23/16 14:12*	*08/28/16 12:35*	*1*
2-Fluorophenol (Surr)	*42*		*15 - 110*	*08/23/16 14:12*	*08/28/16 12:35*	*1*
2-Fluorobiphenyl	*79*		*30 - 130*	*08/23/16 14:12*	*08/28/16 12:35*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:27	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:27	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:27	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:27	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:27	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 15:27	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 15:27	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 15:27	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 15:27	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 15:27	1

Client Sample ID: OB-21-081816

Date Collected: 08/18/16 10:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-5

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*69*		*30 - 150*	*08/23/16 19:58*	*08/24/16 15:27*	*1*
DCB Decachlorobiphenyl	*92*		*30 - 150*	*08/23/16 19:58*	*08/24/16 15:27*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.74**		0.12	0.030	mg/L			08/22/16 19:03	1
Sulfate	**7.79**		0.60	0.11	mg/L			08/22/16 19:03	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:34	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 20:30	08/27/16 20:34	2
Barium	**9.3**		4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:34	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 20:34	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 20:34	2
Cobalt	**1.9**	**J**	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:34	2
Chromium	**1.5**	**J**	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 20:34	2
Copper	**29.3**		4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:34	2
Manganese	**219**		8.0	3.0	ug/L		08/26/16 20:30	08/27/16 20:34	2
Nickel	**4.2**		4.0	1.6	ug/L		08/26/16 20:30	08/27/16 20:34	2
Lead	**1.5**		1.2	0.44	ug/L		08/26/16 20:30	08/27/16 20:34	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 20:34	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 20:34	2
Vanadium	**1.5**	**J**	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 20:34	2
Zinc	**7.7**	**J**	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 20:34	2
Aluminum	**635**		40.0	13.5	ug/L		08/26/16 20:30	08/27/16 20:34	2
Sodium	**3950**		200	87.6	ug/L		08/26/16 20:30	08/27/16 20:34	2
Magnesium	**5410**		200	68.4	ug/L		08/26/16 20:30	08/27/16 20:34	2
Potassium	**1020**		200	74.8	ug/L		08/26/16 20:30	08/27/16 20:34	2
Calcium	**11000**		200	69.5	ug/L		08/26/16 20:30	08/27/16 20:34	2
Iron	**1250**		120	49.1	ug/L		08/26/16 20:30	08/27/16 20:34	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 20:34	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:21	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 11:21	08/29/16 15:21	2
Barium	**3.5**	**J**	4.0	1.5	ug/L		08/29/16 11:21	09/01/16 09:28	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 11:21	08/29/16 15:21	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 11:21	08/29/16 15:21	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:21	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:21	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 15:21	2
Manganese	3.0	U	8.0	3.0	ug/L		08/29/16 11:21	08/29/16 15:21	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 15:21	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 11:21	08/29/16 15:21	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 11:21	08/29/16 15:21	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 11:21	08/29/16 15:21	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 11:21	08/29/16 15:21	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 11:21	08/29/16 15:21	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 11:21	08/29/16 15:21	2

Client Sample ID: OB-21-081816

Lab Sample ID: 460-118898-5

Date Collected: 08/18/16 10:30

Matrix: Water

Date Received: 08/19/16 11:10

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	**3930**		200	87.6	ug/L		08/29/16 11:21	08/29/16 15:21	2
Magnesium	**4520**		200	68.4	ug/L		08/29/16 11:21	08/29/16 15:21	2
Potassium	**1030**		200	74.8	ug/L		08/29/16 11:21	09/01/16 09:28	2
Calcium	**11300**		200	69.5	ug/L		08/29/16 11:21	08/29/16 15:21	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 11:21	08/29/16 15:21	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 11:21	08/29/16 15:21	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 11:57	08/24/16 14:21	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 15:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:35	1
Bicarbonate Alkalinity as CaCO3	**48.2**		5.0	5.0	mg/L			08/30/16 10:00	1
Alkalinity	**48.2**		5.0	5.0	mg/L			08/30/16 10:00	1

Client Sample ID: Dup-02-081816

Lab Sample ID: 460-118898-6

Date Collected: 08/18/16 12:00

Matrix: Water

Date Received: 08/19/16 11:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 17:45	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 17:45	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*08/24/16 17:45*	*1*
4-Bromofluorobenzene	*91*		*70 - 130*		*08/24/16 17:45*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 17:47	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 17:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 17:47	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 17:47	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 17:47	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 17:47	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 17:47	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 17:47	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 17:47	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 17:47	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 17:47	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 17:47	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 17:47	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 17:47	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: Dup-02-081816
Date Collected: 08/18/16 12:00
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 17:47	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 17:47	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 17:47	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 17:47	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 17:47	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 17:47	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 17:47	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 17:47	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 17:47	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 17:47	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 17:47	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 17:47	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 17:47	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 17:47	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 17:47	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 17:47	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 17:47	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 17:47	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 17:47	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 17:47	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 17:47	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 17:47	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 17:47	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 17:47	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 17:47	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 17:47	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 17:47	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 17:47	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 17:47	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 17:47	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 17:47	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 17:47	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 17:47	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 17:47	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 17:47*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*08/24/16 17:47*	*1*
4-Bromofluorobenzene	*119*		*70 - 130*		*08/24/16 17:47*	*1*
Dibromofluoromethane (Surr)	*119*		*70 - 130*		*08/24/16 17:47*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*08/24/16 17:47*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/23/16 14:12	08/30/16 17:58	1
Benzo[a]pyrene	0.028	U	0.053	0.028	ug/L		08/23/16 14:12	08/30/16 17:58	1
Benzo[b]fluoranthene	0.013	U	0.053	0.013	ug/L		08/23/16 14:12	08/30/16 17:58	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		08/23/16 14:12	08/30/16 17:58	1

Client Sample ID: Dup-02-081816
Date Collected: 08/18/16 12:00
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-6
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	0.023	U	0.053	0.023	ug/L		08/23/16 14:12	08/30/16 17:58	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		08/23/16 14:12	08/30/16 17:58	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/23/16 14:12	08/30/16 17:58	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/23/16 14:12	08/30/16 17:58	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.44	U	11	0.44	ug/L		08/23/16 14:12	08/28/16 12:56	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		08/23/16 14:12	08/28/16 12:56	1
2-Methylphenol	1.4	U *	11	1.4	ug/L		08/23/16 14:12	08/28/16 12:56	1
4-Methylphenol	0.93	U	11	0.93	ug/L		08/23/16 14:12	08/28/16 12:56	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/23/16 14:12	08/28/16 12:56	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		08/23/16 14:12	08/28/16 12:56	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/23/16 14:12	08/28/16 12:56	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/23/16 14:12	08/28/16 12:56	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/23/16 14:12	08/28/16 12:56	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/23/16 14:12	08/28/16 12:56	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/23/16 14:12	08/28/16 12:56	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/23/16 14:12	08/28/16 12:56	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/23/16 14:12	08/28/16 12:56	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/23/16 14:12	08/28/16 12:56	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		08/23/16 14:12	08/28/16 12:56	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/23/16 14:12	08/28/16 12:56	1
Isophorone	0.71	U	11	0.71	ug/L		08/23/16 14:12	08/28/16 12:56	1
Naphthalene	0.85	U	11	0.85	ug/L		08/23/16 14:12	08/28/16 12:56	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		08/23/16 14:12	08/28/16 12:56	1
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/23/16 14:12	08/28/16 12:56	1
2-Methylnaphthalene	0.94	U	11	0.94	ug/L		08/23/16 14:12	08/28/16 12:56	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/23/16 14:12	08/28/16 12:56	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/23/16 14:12	08/28/16 12:56	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/23/16 14:12	08/28/16 12:56	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/23/16 14:12	08/28/16 12:56	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/23/16 14:12	08/28/16 12:56	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		08/23/16 14:12	08/28/16 12:56	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/23/16 14:12	08/28/16 12:56	1
Acenaphthene	0.94	U	11	0.94	ug/L		08/23/16 14:12	08/28/16 12:56	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/23/16 14:12	08/28/16 12:56	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/23/16 14:12	08/28/16 12:56	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/23/16 14:12	08/28/16 12:56	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/23/16 14:12	08/28/16 12:56	1
Fluorene	0.85	U	11	0.85	ug/L		08/23/16 14:12	08/28/16 12:56	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/23/16 14:12	08/28/16 12:56	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		08/23/16 14:12	08/28/16 12:56	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/23/16 14:12	08/28/16 12:56	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/23/16 14:12	08/28/16 12:56	1
Anthracene	0.61	U	11	0.61	ug/L		08/23/16 14:12	08/28/16 12:56	1
Carbazole	0.90	U	11	0.90	ug/L		08/23/16 14:12	08/28/16 12:56	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/23/16 14:12	08/28/16 12:56	1
Fluoranthene	0.77	U	11	0.77	ug/L		08/23/16 14:12	08/28/16 12:56	1
Pyrene	0.88	U	11	0.88	ug/L		08/23/16 14:12	08/28/16 12:56	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: Dup-02-081816
Date Collected: 08/18/16 12:00
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/23/16 14:12	08/28/16 12:56	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/23/16 14:12	08/28/16 12:56	1
Bis(2-ethylhexyl) phthalate	0.77	U	2.1	0.77	ug/L		08/23/16 14:12	08/28/16 12:56	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/23/16 14:12	08/28/16 12:56	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/23/16 14:12	08/28/16 12:56	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		08/23/16 14:12	08/28/16 12:56	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/23/16 14:12	08/28/16 12:56	1
Acetophenone	1.1	U	11	1.1	ug/L		08/23/16 14:12	08/28/16 12:56	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/23/16 14:12	08/28/16 12:56	1
Caprolactam	1.1	U	11	1.1	ug/L		08/23/16 14:12	08/28/16 12:56	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/23/16 14:12	08/28/16 12:56	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/23/16 14:12	08/28/16 12:56	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/23/16 14:12	08/28/16 12:56	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/23/16 14:12	08/28/16 12:56	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/23/16 14:12	08/28/16 12:56	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/23/16 14:12	08/28/16 12:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*78*		*30 - 130*	*08/23/16 14:12*	*08/28/16 12:56*	*1*
Phenol-d5 (Surr)	*16*		*15 - 110*	*08/23/16 14:12*	*08/28/16 12:56*	*1*
Terphenyl-d14 (Surr)	*78*		*30 - 130*	*08/23/16 14:12*	*08/28/16 12:56*	*1*
2,4,6-Tribromophenol (Surr)	*78*		*15 - 110*	*08/23/16 14:12*	*08/28/16 12:56*	*1*
2-Fluorophenol (Surr)	*23*		*15 - 110*	*08/23/16 14:12*	*08/28/16 12:56*	*1*
2-Fluorobiphenyl	*75*		*30 - 130*	*08/23/16 14:12*	*08/28/16 12:56*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 19:13	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 19:13	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 19:13	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 19:13	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 19:13	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 19:13	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 19:13	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 19:13	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 19:13	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*121*		*30 - 150*	*08/24/16 07:49*	*08/25/16 19:13*	*1*
DCB Decachlorobiphenyl	*90*		*30 - 150*	*08/24/16 07:49*	*08/25/16 19:13*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.67**		0.12	0.030	mg/L			08/22/16 19:21	1
Sulfate	**7.70**		0.60	0.11	mg/L			08/22/16 19:21	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:33	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 19:43	2

Client Sample ID: Dup-02-081816

Date Collected: 08/18/16 12:00
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-6

Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**9.2**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:33	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 19:33	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 19:33	2
Cobalt	**1.8**	**J**	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:33	2
Chromium	**1.6**	**J**	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:33	2
Copper	**25.8**		4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:33	2
Manganese	**203**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 19:33	2
Nickel	**4.1**		4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:33	2
Lead	**1.5**		1.2	0.44	ug/L		08/26/16 21:49	08/28/16 19:33	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 19:33	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 19:43	2
Vanadium	**1.5**	**J**	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 19:33	2
Zinc	**7.2**	**J**	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 19:33	2
Aluminum	**618**		40.0	13.5	ug/L		08/26/16 21:49	08/28/16 19:33	2
Sodium	**3900**		200	87.6	ug/L		08/26/16 21:49	08/28/16 19:33	2
Magnesium	**5280**		200	68.4	ug/L		08/26/16 21:49	08/28/16 19:33	2
Potassium	**1010**		200	74.8	ug/L		08/26/16 21:49	08/28/16 19:33	2
Calcium	**11200**		200	69.5	ug/L		08/26/16 21:49	08/28/16 19:33	2
Iron	**1160**		120	49.1	ug/L		08/26/16 21:49	08/28/16 19:33	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 19:33	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:26	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 11:21	08/29/16 15:26	2
Barium	**3.2**	**J**	4.0	1.5	ug/L		08/29/16 11:21	09/01/16 09:33	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 11:21	08/29/16 15:26	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 11:21	08/29/16 15:26	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:26	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:26	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 15:26	2
Manganese	3.0	U	8.0	3.0	ug/L		08/29/16 11:21	08/29/16 15:26	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 15:26	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 11:21	08/29/16 15:26	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 11:21	08/29/16 15:26	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 11:21	08/29/16 15:26	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 11:21	08/29/16 15:26	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 11:21	08/29/16 15:26	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 11:21	08/29/16 15:26	2
Sodium	**3880**		200	87.6	ug/L		08/29/16 11:21	08/29/16 15:26	2
Magnesium	**4460**		200	68.4	ug/L		08/29/16 11:21	08/29/16 15:26	2
Potassium	**1040**		200	74.8	ug/L		08/29/16 11:21	09/01/16 09:33	2
Calcium	**11300**		200	69.5	ug/L		08/29/16 11:21	08/29/16 15:26	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 11:21	08/29/16 15:26	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 11:21	08/29/16 15:26	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 11:57	08/24/16 14:23	1

Client Sample ID: Dup-02-081816

Lab Sample ID: 460-118898-6

Date Collected: 08/18/16 12:00

Matrix: Water

Date Received: 08/19/16 11:10

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 15:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:36	1
Bicarbonate Alkalinity as CaCO3	**44.2**		5.0	5.0	mg/L			08/30/16 10:00	1
Alkalinity	**44.2**		5.0	5.0	mg/L			08/30/16 10:00	1

Client Sample ID: RW-6-081816

Lab Sample ID: 460-118898-7

Date Collected: 08/18/16 11:20

Matrix: Water

Date Received: 08/19/16 11:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 15:15	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 15:15	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*08/24/16 15:15*	*1*
4-Bromofluorobenzene	*102*		*70 - 130*		*08/24/16 15:15*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 18:14	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 18:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 18:14	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 18:14	1
1,1-Dichloroethane	**0.64**	**J**	1.0	0.24	ug/L			08/24/16 18:14	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 18:14	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 18:14	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 18:14	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 18:14	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 18:14	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 18:14	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 18:14	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 18:14	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 18:14	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 18:14	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 18:14	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 18:14	1
Benzene	**1.9**		1.0	0.090	ug/L			08/24/16 18:14	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 18:14	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 18:14	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 18:14	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 18:14	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 18:14	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 18:14	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 18:14	1
Chloroethane	**10**		1.0	0.37	ug/L			08/24/16 18:14	1

Client Sample ID: RW-6-081816
Date Collected: 08/18/16 11:20
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 18:14	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 18:14	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 18:14	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 18:14	1
Cyclohexane	**0.75**	**J**	1.0	0.26	ug/L			08/24/16 18:14	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 18:14	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 18:14	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 18:14	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 18:14	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 18:14	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 18:14	1
Methylcyclohexane	**0.75**	**J**	1.0	0.22	ug/L			08/24/16 18:14	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 18:14	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 18:14	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 18:14	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 18:14	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 18:14	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 18:14	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 18:14	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 18:14	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 18:14	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 18:14	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 18:14*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*08/24/16 18:14*	*1*
4-Bromofluorobenzene	*105*		*70 - 130*		*08/24/16 18:14*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*08/24/16 18:14*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*08/24/16 18:14*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/23/16 14:12	08/31/16 11:06	1
Benzo[a]pyrene	0.028	U	0.053	0.028	ug/L		08/23/16 14:12	08/31/16 11:06	1
Benzo[b]fluoranthene	0.013	U	0.053	0.013	ug/L		08/23/16 14:12	08/31/16 11:06	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		08/23/16 14:12	08/31/16 11:06	1
Dibenz(a,h)anthracene	0.023	U	0.053	0.023	ug/L		08/23/16 14:12	08/31/16 11:06	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		08/23/16 14:12	08/31/16 11:06	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/23/16 14:12	08/31/16 11:06	1
Pentachlorophenol	**0.11**	**J**	0.21	0.082	ug/L		08/23/16 14:12	08/31/16 11:06	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.44	U	11	0.44	ug/L		08/23/16 14:12	08/28/16 13:17	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		08/23/16 14:12	08/28/16 13:17	1
2-Methylphenol	1.4	U *	11	1.4	ug/L		08/23/16 14:12	08/28/16 13:17	1
4-Methylphenol	0.93	U	11	0.93	ug/L		08/23/16 14:12	08/28/16 13:17	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/23/16 14:12	08/28/16 13:17	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: RW-6-081816
Date Collected: 08/18/16 11:20
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		08/23/16 14:12	08/28/16 13:17	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/23/16 14:12	08/28/16 13:17	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/23/16 14:12	08/28/16 13:17	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/23/16 14:12	08/28/16 13:17	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/23/16 14:12	08/28/16 13:17	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/23/16 14:12	08/28/16 13:17	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/23/16 14:12	08/28/16 13:17	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/23/16 14:12	08/28/16 13:17	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/23/16 14:12	08/28/16 13:17	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		08/23/16 14:12	08/28/16 13:17	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/23/16 14:12	08/28/16 13:17	1
Isophorone	0.71	U	11	0.71	ug/L		08/23/16 14:12	08/28/16 13:17	1
Naphthalene	0.85	U	11	0.85	ug/L		08/23/16 14:12	08/28/16 13:17	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		08/23/16 14:12	08/28/16 13:17	1
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/23/16 14:12	08/28/16 13:17	1
2-Methylnaphthalene	0.94	U	11	0.94	ug/L		08/23/16 14:12	08/28/16 13:17	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/23/16 14:12	08/28/16 13:17	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/23/16 14:12	08/28/16 13:17	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/23/16 14:12	08/28/16 13:17	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/23/16 14:12	08/28/16 13:17	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/23/16 14:12	08/28/16 13:17	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		08/23/16 14:12	08/28/16 13:17	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/23/16 14:12	08/28/16 13:17	1
Acenaphthene	0.94	U	11	0.94	ug/L		08/23/16 14:12	08/28/16 13:17	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/23/16 14:12	08/28/16 13:17	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/23/16 14:12	08/28/16 13:17	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/23/16 14:12	08/28/16 13:17	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/23/16 14:12	08/28/16 13:17	1
Fluorene	0.85	U	11	0.85	ug/L		08/23/16 14:12	08/28/16 13:17	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/23/16 14:12	08/28/16 13:17	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		08/23/16 14:12	08/28/16 13:17	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/23/16 14:12	08/28/16 13:17	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/23/16 14:12	08/28/16 13:17	1
Anthracene	0.61	U	11	0.61	ug/L		08/23/16 14:12	08/28/16 13:17	1
Carbazole	0.90	U	11	0.90	ug/L		08/23/16 14:12	08/28/16 13:17	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/23/16 14:12	08/28/16 13:17	1
Fluoranthene	0.77	U	11	0.77	ug/L		08/23/16 14:12	08/28/16 13:17	1
Pyrene	0.88	U	11	0.88	ug/L		08/23/16 14:12	08/28/16 13:17	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/23/16 14:12	08/28/16 13:17	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/23/16 14:12	08/28/16 13:17	1
Bis(2-ethylhexyl) phthalate	**0.93**	**J**	2.1	0.77	ug/L		08/23/16 14:12	08/28/16 13:17	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/23/16 14:12	08/28/16 13:17	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/23/16 14:12	08/28/16 13:17	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		08/23/16 14:12	08/28/16 13:17	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/23/16 14:12	08/28/16 13:17	1
Acetophenone	1.1	U	11	1.1	ug/L		08/23/16 14:12	08/28/16 13:17	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/23/16 14:12	08/28/16 13:17	1
Caprolactam	1.1	U	11	1.1	ug/L		08/23/16 14:12	08/28/16 13:17	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/23/16 14:12	08/28/16 13:17	1

Client Sample ID: RW-6-081816
Date Collected: 08/18/16 11:20
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/23/16 14:12	08/28/16 13:17	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/23/16 14:12	08/28/16 13:17	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/23/16 14:12	08/28/16 13:17	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/23/16 14:12	08/28/16 13:17	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/23/16 14:12	08/28/16 13:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*80*		*30 - 130*	*08/23/16 14:12*	*08/28/16 13:17*	*1*
Phenol-d5 (Surr)	*31*		*15 - 110*	*08/23/16 14:12*	*08/28/16 13:17*	*1*
Terphenyl-d14 (Surr)	*81*		*30 - 130*	*08/23/16 14:12*	*08/28/16 13:17*	*1*
2,4,6-Tribromophenol (Surr)	*121*	*X*	*15 - 110*	*08/23/16 14:12*	*08/28/16 13:17*	*1*
2-Fluorophenol (Surr)	*45*		*15 - 110*	*08/23/16 14:12*	*08/28/16 13:17*	*1*
2-Fluorobiphenyl	*75*		*30 - 130*	*08/23/16 14:12*	*08/28/16 13:17*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/26/16 08:29	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/26/16 08:29	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/26/16 08:29	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/26/16 08:29	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/26/16 08:29	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/26/16 08:29	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/26/16 08:29	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/26/16 08:29	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/26/16 08:29	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/26/16 08:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*80*		*30 - 150*	*08/24/16 07:49*	*08/26/16 08:29*	*1*
DCB Decachlorobiphenyl	*93*		*30 - 150*	*08/24/16 07:49*	*08/26/16 08:29*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**0.68**		0.60	0.11	mg/L			08/22/16 19:39	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**6.13**	**D**	1.20	0.30	mg/L			08/30/16 17:24	10

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:46	2
Arsenic	**1.2**	**J**	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 20:17	2
Barium	**429**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:46	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 19:46	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 19:46	2
Cobalt	**4.8**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:46	2
Chromium	**1.8**	**J**	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:46	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:46	2
Manganese	**7470**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 19:46	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:46	2

Client Sample ID: RW-6-081816

Date Collected: 08/18/16 11:20
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-7

Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 19:46	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 19:46	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 20:17	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 19:46	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 19:46	2
Aluminum	**18.4**	**J**	40.0	13.5	ug/L		08/26/16 21:49	08/28/16 19:46	2
Sodium	**7580**		200	87.6	ug/L		08/26/16 21:49	08/28/16 19:46	2
Magnesium	**14900**		200	68.4	ug/L		08/26/16 21:49	08/28/16 19:46	2
Potassium	**3090**		200	74.8	ug/L		08/26/16 21:49	08/28/16 19:46	2
Calcium	**80300**		200	69.5	ug/L		08/26/16 21:49	08/28/16 19:46	2
Iron	**43800**		120	49.1	ug/L		08/26/16 21:49	08/28/16 19:46	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 19:46	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:48	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 11:21	08/29/16 15:48	2
Barium	**261**		4.0	1.5	ug/L		08/29/16 11:21	09/01/16 09:57	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 11:21	08/29/16 15:48	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 11:21	08/29/16 15:48	2
Cobalt	**4.5**		4.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:48	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:48	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 15:48	2
Manganese	**7420**		8.0	3.0	ug/L		08/29/16 11:21	08/29/16 15:48	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 15:48	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 11:21	08/29/16 15:48	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 11:21	08/29/16 15:48	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 11:21	08/29/16 15:48	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 11:21	08/29/16 15:48	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 11:21	08/29/16 15:48	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 11:21	08/29/16 15:48	2
Sodium	**7370**		200	87.6	ug/L		08/29/16 11:21	08/29/16 15:48	2
Magnesium	**14600**		200	68.4	ug/L		08/29/16 11:21	08/29/16 15:48	2
Potassium	**3250**		200	74.8	ug/L		08/29/16 11:21	09/01/16 09:57	2
Calcium	**82000**		200	69.5	ug/L		08/29/16 11:21	08/29/16 15:48	2
Iron	**7640**		120	49.1	ug/L		08/29/16 11:21	08/29/16 15:48	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 11:21	08/29/16 15:48	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 11:57	08/24/16 14:24	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 15:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:40	1
Bicarbonate Alkalinity as CaCO3	**304**		5.0	5.0	mg/L			09/01/16 12:00	1

Client Sample ID: RW-6-081816
Lab Sample ID: 460-118898-7
Date Collected: 08/18/16 11:20
Matrix: Water
Date Received: 08/19/16 11:10

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	304		5.0	5.0	mg/L			09/01/16 12:00	1

Client Sample ID: RW-7-081816
Lab Sample ID: 460-118898-8
Date Collected: 08/18/16 12:20
Matrix: Water
Date Received: 08/19/16 11:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 18:10	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 18:10	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 18:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/24/16 18:10*	*1*
4-Bromofluorobenzene	*90*		*70 - 130*		*08/24/16 18:10*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 18:41	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 18:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 18:41	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 18:41	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 18:41	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 18:41	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 18:41	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 18:41	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 18:41	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 18:41	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 18:41	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 18:41	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 18:41	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 18:41	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 18:41	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 18:41	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 18:41	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 18:41	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 18:41	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 18:41	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 18:41	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 18:41	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 18:41	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 18:41	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 18:41	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 18:41	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 18:41	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 18:41	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 18:41	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 18:41	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 18:41	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 18:41	1

Client Sample ID: RW-7-081816

Date Collected: 08/18/16 12:20
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-8

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 18:41	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 18:41	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 18:41	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 18:41	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 18:41	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 18:41	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 18:41	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 18:41	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 18:41	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 18:41	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 18:41	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 18:41	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 18:41	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 18:41	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 18:41	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 18:41	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 18:41*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*08/24/16 18:41*	*1*
4-Bromofluorobenzene	*104*		*70 - 130*		*08/24/16 18:41*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*08/24/16 18:41*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*08/24/16 18:41*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/23/16 14:12	08/31/16 11:35	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/23/16 14:12	08/31/16 11:35	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/23/16 14:12	08/31/16 11:35	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/31/16 11:35	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/23/16 14:12	08/31/16 11:35	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/31/16 11:35	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/23/16 14:12	08/31/16 11:35	1
Pentachlorophenol	0.081	U	0.21	0.081	ug/L		08/23/16 14:12	08/31/16 11:35	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/23/16 14:12	08/28/16 13:39	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 13:39	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/23/16 14:12	08/28/16 13:39	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/23/16 14:12	08/28/16 13:39	1
2-Nitrophenol	0.62	U	10	0.62	ug/L		08/23/16 14:12	08/28/16 13:39	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/23/16 14:12	08/28/16 13:39	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 13:39	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/23/16 14:12	08/28/16 13:39	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/23/16 14:12	08/28/16 13:39	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/23/16 14:12	08/28/16 13:39	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/23/16 14:12	08/28/16 13:39	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: RW-7-081816
Date Collected: 08/18/16 12:20
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/23/16 14:12	08/28/16 13:39	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/23/16 14:12	08/28/16 13:39	1
N-Nitrosodi-n-propylamine	0.87	U	1.0	0.87	ug/L		08/23/16 14:12	08/28/16 13:39	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/23/16 14:12	08/28/16 13:39	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/23/16 14:12	08/28/16 13:39	1
Isophorone	0.70	U	10	0.70	ug/L		08/23/16 14:12	08/28/16 13:39	1
Naphthalene	0.84	U	10	0.84	ug/L		08/23/16 14:12	08/28/16 13:39	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/23/16 14:12	08/28/16 13:39	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/23/16 14:12	08/28/16 13:39	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 13:39	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 13:39	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 13:39	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 13:39	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 13:39	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 13:39	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/23/16 14:12	08/28/16 13:39	1
3-Nitroaniline	0.86	U	10	0.86	ug/L		08/23/16 14:12	08/28/16 13:39	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 13:39	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 13:39	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/23/16 14:12	08/28/16 13:39	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 13:39	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 13:39	1
Fluorene	0.84	U	10	0.84	ug/L		08/23/16 14:12	08/28/16 13:39	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/23/16 14:12	08/28/16 13:39	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 13:39	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 13:39	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 13:39	1
Anthracene	0.60	U	10	0.60	ug/L		08/23/16 14:12	08/28/16 13:39	1
Carbazole	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 13:39	1
Di-n-butyl phthalate	0.86	U	10	0.86	ug/L		08/23/16 14:12	08/28/16 13:39	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/23/16 14:12	08/28/16 13:39	1
Pyrene	0.87	U	10	0.87	ug/L		08/23/16 14:12	08/28/16 13:39	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/23/16 14:12	08/28/16 13:39	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/23/16 14:12	08/28/16 13:39	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/23/16 14:12	08/28/16 13:39	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 13:39	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/23/16 14:12	08/28/16 13:39	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/23/16 14:12	08/28/16 13:39	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 13:39	1
Acetophenone	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 13:39	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/23/16 14:12	08/28/16 13:39	1
Caprolactam	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 13:39	1
Atrazine	0.81	U	2.1	0.81	ug/L		08/23/16 14:12	08/28/16 13:39	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/23/16 14:12	08/28/16 13:39	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/23/16 14:12	08/28/16 13:39	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 13:39	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 13:39	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 13:39	1

Client Sample ID: RW-7-081816
Date Collected: 08/18/16 12:20
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-8
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*80*		*30 - 130*	*08/23/16 14:12*	*08/28/16 13:39*	*1*
Phenol-d5 (Surr)	*28*		*15 - 110*	*08/23/16 14:12*	*08/28/16 13:39*	*1*
Terphenyl-d14 (Surr)	*74*		*30 - 130*	*08/23/16 14:12*	*08/28/16 13:39*	*1*
2,4,6-Tribromophenol (Surr)	*109*		*15 - 110*	*08/23/16 14:12*	*08/28/16 13:39*	*1*
2-Fluorophenol (Surr)	*43*		*15 - 110*	*08/23/16 14:12*	*08/28/16 13:39*	*1*
2-Fluorobiphenyl	*75*		*30 - 130*	*08/23/16 14:12*	*08/28/16 13:39*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 19:49	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 19:49	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 19:49	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 19:49	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 19:49	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 19:49	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 19:49	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 19:49	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 19:49	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*92*		*30 - 150*	*08/24/16 07:49*	*08/25/16 19:49*	*1*
DCB Decachlorobiphenyl	*86*		*30 - 150*	*08/24/16 07:49*	*08/25/16 19:49*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.62**		0.12	0.030	mg/L			08/22/16 19:58	1
Sulfate	**9.10**		0.60	0.11	mg/L			08/22/16 19:58	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:36	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 19:49	2
Barium	**2.2**	**J**	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:36	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 19:36	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 19:36	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:36	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:36	2
Copper	**2.7**	**J**	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:36	2
Manganese	**15.8**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 19:36	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:36	2
Lead	**0.59**	**J**	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 19:36	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 19:36	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 19:49	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 19:36	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 19:36	2
Aluminum	**295**		40.0	13.5	ug/L		08/26/16 21:49	08/28/16 19:36	2
Sodium	**4210**		200	87.6	ug/L		08/26/16 21:49	08/28/16 19:36	2
Magnesium	**4570**		200	68.4	ug/L		08/26/16 21:49	08/28/16 19:36	2
Potassium	**953**		200	74.8	ug/L		08/26/16 21:49	08/28/16 19:36	2
Calcium	**12300**		200	69.5	ug/L		08/26/16 21:49	08/28/16 19:36	2

Client Sample ID: RW-7-081816

Date Collected: 08/18/16 12:20
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-8
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**1050**		120	49.1	ug/L		08/26/16 21:49	08/28/16 19:36	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 19:36	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:54	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 11:21	08/29/16 15:54	2
Barium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	09/01/16 10:03	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 11:21	08/29/16 15:54	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 11:21	08/29/16 15:54	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:54	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 15:54	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 15:54	2
Manganese	3.0	U	8.0	3.0	ug/L		08/29/16 11:21	08/29/16 15:54	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 15:54	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 11:21	08/29/16 15:54	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 11:21	08/29/16 15:54	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 11:21	08/29/16 15:54	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 11:21	08/29/16 15:54	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 11:21	08/29/16 15:54	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 11:21	08/29/16 15:54	2
Sodium	**4070**		200	87.6	ug/L		08/29/16 11:21	08/29/16 15:54	2
Magnesium	**3780**		200	68.4	ug/L		08/29/16 11:21	08/29/16 15:54	2
Potassium	**963**		200	74.8	ug/L		08/29/16 11:21	09/01/16 10:03	2
Calcium	**11800**		200	69.5	ug/L		08/29/16 11:21	08/29/16 15:54	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 11:21	08/29/16 15:54	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 11:21	08/29/16 15:54	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 11:57	08/24/16 14:26	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 15:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:41	1
Bicarbonate Alkalinity as CaCO3	**40.2**		5.0	5.0	mg/L			09/01/16 12:00	1
Alkalinity	**40.2**		5.0	5.0	mg/L			09/01/16 12:00	1

Client Sample ID: OB-5-081816

Date Collected: 08/18/16 12:40
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-9
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 18:35	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 18:35	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 18:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*08/24/16 18:35*	*1*
4-Bromofluorobenzene	*92*		*70 - 130*		*08/24/16 18:35*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 19:08	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 19:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 19:08	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 19:08	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 19:08	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 19:08	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 19:08	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 19:08	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 19:08	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 19:08	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 19:08	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 19:08	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 19:08	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 19:08	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 19:08	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 19:08	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 19:08	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 19:08	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 19:08	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 19:08	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 19:08	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 19:08	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 19:08	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 19:08	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 19:08	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 19:08	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 19:08	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 19:08	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 19:08	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 19:08	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 19:08	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 19:08	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 19:08	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 19:08	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 19:08	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 19:08	1
Methyl tert-butyl ether	**0.17**	**J**	1.0	0.13	ug/L			08/24/16 19:08	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 19:08	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 19:08	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 19:08	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 19:08	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 19:08	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 19:08	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 19:08	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 19:08	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 19:08	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 19:08	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 19:08	1

Client Sample ID: OB-5-081816
Date Collected: 08/18/16 12:40
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-9
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/24/16 19:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		08/24/16 19:08	1
4-Bromofluorobenzene	108		70 - 130		08/24/16 19:08	1
Dibromofluoromethane (Surr)	106		70 - 130		08/24/16 19:08	1
Toluene-d8 (Surr)	93		70 - 130		08/24/16 19:08	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/23/16 14:12	08/31/16 12:04	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/23/16 14:12	08/31/16 12:04	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/23/16 14:12	08/31/16 12:04	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/31/16 12:04	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/23/16 14:12	08/31/16 12:04	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/31/16 12:04	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/23/16 14:12	08/31/16 12:04	1
Pentachlorophenol	**0.11**	**J**	0.21	0.080	ug/L		08/23/16 14:12	08/31/16 12:04	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/23/16 14:12	08/28/16 14:00	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 14:00	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/23/16 14:12	08/28/16 14:00	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/23/16 14:12	08/28/16 14:00	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/23/16 14:12	08/28/16 14:00	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/23/16 14:12	08/28/16 14:00	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 14:00	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/23/16 14:12	08/28/16 14:00	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/23/16 14:12	08/28/16 14:00	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/23/16 14:12	08/28/16 14:00	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/23/16 14:12	08/28/16 14:00	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/23/16 14:12	08/28/16 14:00	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/23/16 14:12	08/28/16 14:00	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/23/16 14:12	08/28/16 14:00	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/23/16 14:12	08/28/16 14:00	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/23/16 14:12	08/28/16 14:00	1
Isophorone	0.70	U	10	0.70	ug/L		08/23/16 14:12	08/28/16 14:00	1
Naphthalene	0.83	U	10	0.83	ug/L		08/23/16 14:12	08/28/16 14:00	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/23/16 14:12	08/28/16 14:00	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/23/16 14:12	08/28/16 14:00	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 14:00	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 14:00	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 14:00	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 14:00	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 14:00	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 14:00	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/23/16 14:12	08/28/16 14:00	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/28/16 14:00	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 14:00	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 14:00	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: OB-5-081816
Date Collected: 08/18/16 12:40
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/23/16 14:12	08/28/16 14:00	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 14:00	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 14:00	1
Fluorene	0.83	U	10	0.83	ug/L		08/23/16 14:12	08/28/16 14:00	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/23/16 14:12	08/28/16 14:00	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 14:00	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 14:00	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 14:00	1
Anthracene	0.59	U	10	0.59	ug/L		08/23/16 14:12	08/28/16 14:00	1
Carbazole	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 14:00	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/28/16 14:00	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/23/16 14:12	08/28/16 14:00	1
Pyrene	0.86	U	10	0.86	ug/L		08/23/16 14:12	08/28/16 14:00	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/23/16 14:12	08/28/16 14:00	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/23/16 14:12	08/28/16 14:00	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/23/16 14:12	08/28/16 14:00	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 14:00	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/23/16 14:12	08/28/16 14:00	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/23/16 14:12	08/28/16 14:00	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 14:00	1
Acetophenone	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 14:00	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/23/16 14:12	08/28/16 14:00	1
Caprolactam	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 14:00	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/23/16 14:12	08/28/16 14:00	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/23/16 14:12	08/28/16 14:00	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/23/16 14:12	08/28/16 14:00	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 14:00	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 14:00	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 14:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*79*		*30 - 130*	*08/23/16 14:12*	*08/28/16 14:00*	*1*
Phenol-d5 (Surr)	*32*		*15 - 110*	*08/23/16 14:12*	*08/28/16 14:00*	*1*
Terphenyl-d14 (Surr)	*88*		*30 - 130*	*08/23/16 14:12*	*08/28/16 14:00*	*1*
2,4,6-Tribromophenol (Surr)	*119*	*X*	*15 - 110*	*08/23/16 14:12*	*08/28/16 14:00*	*1*
2-Fluorophenol (Surr)	*45*		*15 - 110*	*08/23/16 14:12*	*08/28/16 14:00*	*1*
2-Fluorobiphenyl	*75*		*30 - 130*	*08/23/16 14:12*	*08/28/16 14:00*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/26/16 08:47	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/26/16 08:47	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/26/16 08:47	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/26/16 08:47	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/26/16 08:47	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/26/16 08:47	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/26/16 08:47	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/26/16 08:47	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/26/16 08:47	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/26/16 08:47	1

Client Sample ID: OB-5-081816

Date Collected: 08/18/16 12:40
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-9

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*88*		*30 - 150*	*08/24/16 07:49*	*08/26/16 08:47*	*1*
DCB Decachlorobiphenyl	*97*		*30 - 150*	*08/24/16 07:49*	*08/26/16 08:47*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**7.61**		0.60	0.11	mg/L			08/22/16 20:16	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**89.9**	**D F1**	6.00	1.50	mg/L			08/31/16 14:04	50

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:51	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 20:22	2
Barium	**28.4**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:51	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 19:51	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 19:51	2
Cobalt	**6.2**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:51	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:51	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:51	2
Manganese	**2430**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 19:51	2
Nickel	**2.3**	**J**	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:51	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 19:51	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 19:51	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 20:22	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 19:51	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 19:51	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 21:49	08/28/16 19:51	2
Sodium	**34800**		200	87.6	ug/L		08/26/16 21:49	08/28/16 19:51	2
Magnesium	**39200**		200	68.4	ug/L		08/26/16 21:49	08/28/16 19:51	2
Potassium	**3550**		200	74.8	ug/L		08/26/16 21:49	08/28/16 19:51	2
Calcium	**74200**		200	69.5	ug/L		08/26/16 21:49	08/28/16 19:51	2
Iron	**21100**		120	49.1	ug/L		08/26/16 21:49	08/28/16 19:51	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 19:51	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:00	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 11:21	08/29/16 16:00	2
Barium	**18.3**		4.0	1.5	ug/L		08/29/16 11:21	09/01/16 10:08	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 11:21	08/29/16 16:00	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 11:21	08/29/16 16:00	2
Cobalt	**5.4**		4.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:00	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:00	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 16:00	2
Manganese	**2490**		8.0	3.0	ug/L		08/29/16 11:21	08/29/16 16:00	2
Nickel	**1.8**	**J**	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 16:00	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 11:21	08/29/16 16:00	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 11:21	08/29/16 16:00	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 11:21	08/29/16 16:00	2

Client Sample ID: OB-5-081816

Date Collected: 08/18/16 12:40
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-9
Matrix: Water

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 11:21	08/29/16 16:00	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 11:21	08/29/16 16:00	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 11:21	08/29/16 16:00	2
Sodium	**33900**		200	87.6	ug/L		08/29/16 11:21	08/29/16 16:00	2
Magnesium	**38100**		200	68.4	ug/L		08/29/16 11:21	08/29/16 16:00	2
Potassium	**3820**		200	74.8	ug/L		08/29/16 11:21	09/01/16 10:08	2
Calcium	**78100**		200	69.5	ug/L		08/29/16 11:21	08/29/16 16:00	2
Iron	**5150**		120	49.1	ug/L		08/29/16 11:21	08/29/16 16:00	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 11:21	08/29/16 16:00	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 11:57	08/24/16 14:28	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:42	1
Bicarbonate Alkalinity as CaCO3	**304**		5.0	5.0	mg/L			09/01/16 12:00	1
Alkalinity	**304**		5.0	5.0	mg/L			09/01/16 12:00	1

Client Sample ID: OB-20B-081816

Date Collected: 08/18/16 12:50
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-10
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 15:40	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 15:40	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 15:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*08/24/16 15:40*	*1*
4-Bromofluorobenzene	*116*		*70 - 130*		*08/24/16 15:40*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 19:35	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 19:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 19:35	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 19:35	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 19:35	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 19:35	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 19:35	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 19:35	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 19:35	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 19:35	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 19:35	1

Client Sample ID: OB-20B-081816

Date Collected: 08/18/16 12:50
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-10

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 19:35	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 19:35	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 19:35	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 19:35	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 19:35	1
Acetone	**7.8**		5.0	1.1	ug/L			08/24/16 19:35	1
Benzene	**0.15**	**J**	1.0	0.090	ug/L			08/24/16 19:35	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 19:35	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 19:35	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 19:35	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 19:35	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 19:35	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 19:35	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 19:35	1
Chloroethane	**3.9**		1.0	0.37	ug/L			08/24/16 19:35	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 19:35	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 19:35	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 19:35	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 19:35	1
Cyclohexane	**1.0**		1.0	0.26	ug/L			08/24/16 19:35	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 19:35	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 19:35	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 19:35	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 19:35	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 19:35	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 19:35	1
Methylcyclohexane	**0.66**	**J**	1.0	0.22	ug/L			08/24/16 19:35	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 19:35	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 19:35	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 19:35	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 19:35	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 19:35	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 19:35	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 19:35	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 19:35	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 19:35	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 19:35	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 19:35*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*08/24/16 19:35*	*1*
4-Bromofluorobenzene	*107*		*70 - 130*		*08/24/16 19:35*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*08/24/16 19:35*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*08/24/16 19:35*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/23/16 14:12	08/30/16 19:59	1

Client Sample ID: OB-20B-081816
Date Collected: 08/18/16 12:50
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-10
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/23/16 14:12	08/30/16 19:59	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/23/16 14:12	08/30/16 19:59	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/30/16 19:59	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/23/16 14:12	08/30/16 19:59	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/30/16 19:59	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/23/16 14:12	08/30/16 19:59	1
Pentachlorophenol	**0.11**	**J**	0.21	0.081	ug/L		08/23/16 14:12	08/30/16 19:59	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/23/16 14:12	08/28/16 14:21	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 14:21	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/23/16 14:12	08/28/16 14:21	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/23/16 14:12	08/28/16 14:21	1
2-Nitrophenol	0.62	U	10	0.62	ug/L		08/23/16 14:12	08/28/16 14:21	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/23/16 14:12	08/28/16 14:21	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 14:21	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/23/16 14:12	08/28/16 14:21	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/23/16 14:12	08/28/16 14:21	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/23/16 14:12	08/28/16 14:21	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/23/16 14:12	08/28/16 14:21	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/23/16 14:12	08/28/16 14:21	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/23/16 14:12	08/28/16 14:21	1
N-Nitrosodi-n-propylamine	0.87	U	1.0	0.87	ug/L		08/23/16 14:12	08/28/16 14:21	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/23/16 14:12	08/28/16 14:21	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/23/16 14:12	08/28/16 14:21	1
Isophorone	0.70	U	10	0.70	ug/L		08/23/16 14:12	08/28/16 14:21	1
Naphthalene	**2.5**	**J**	10	0.84	ug/L		08/23/16 14:12	08/28/16 14:21	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/23/16 14:12	08/28/16 14:21	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/23/16 14:12	08/28/16 14:21	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 14:21	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 14:21	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 14:21	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 14:21	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 14:21	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 14:21	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/23/16 14:12	08/28/16 14:21	1
3-Nitroaniline	0.86	U	10	0.86	ug/L		08/23/16 14:12	08/28/16 14:21	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 14:21	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 14:21	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/23/16 14:12	08/28/16 14:21	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 14:21	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 14:21	1
Fluorene	0.84	U	10	0.84	ug/L		08/23/16 14:12	08/28/16 14:21	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/23/16 14:12	08/28/16 14:21	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 14:21	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 14:21	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 14:21	1
Anthracene	0.60	U	10	0.60	ug/L		08/23/16 14:12	08/28/16 14:21	1
Carbazole	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 14:21	1

Client Sample ID: OB-20B-081816
Date Collected: 08/18/16 12:50
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-10
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	0.86	U	10	0.86	ug/L		08/23/16 14:12	08/28/16 14:21	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/23/16 14:12	08/28/16 14:21	1
Pyrene	0.87	U	10	0.87	ug/L		08/23/16 14:12	08/28/16 14:21	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/23/16 14:12	08/28/16 14:21	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/23/16 14:12	08/28/16 14:21	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/23/16 14:12	08/28/16 14:21	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 14:21	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/23/16 14:12	08/28/16 14:21	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/23/16 14:12	08/28/16 14:21	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 14:21	1
Acetophenone	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 14:21	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/23/16 14:12	08/28/16 14:21	1
Caprolactam	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 14:21	1
Atrazine	0.81	U	2.1	0.81	ug/L		08/23/16 14:12	08/28/16 14:21	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/23/16 14:12	08/28/16 14:21	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/23/16 14:12	08/28/16 14:21	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 14:21	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 14:21	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 14:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*80*		*30 - 130*	*08/23/16 14:12*	*08/28/16 14:21*	*1*
Phenol-d5 (Surr)	*32*		*15 - 110*	*08/23/16 14:12*	*08/28/16 14:21*	*1*
Terphenyl-d14 (Surr)	*89*		*30 - 130*	*08/23/16 14:12*	*08/28/16 14:21*	*1*
2,4,6-Tribromophenol (Surr)	*121*	*X*	*15 - 110*	*08/23/16 14:12*	*08/28/16 14:21*	*1*
2-Fluorophenol (Surr)	*45*		*15 - 110*	*08/23/16 14:12*	*08/28/16 14:21*	*1*
2-Fluorobiphenyl	*77*		*30 - 130*	*08/23/16 14:12*	*08/28/16 14:21*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 20:25	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 20:25	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 20:25	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 20:25	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 20:25	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 20:25	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 20:25	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 20:25	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 20:25	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 20:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*87*		*30 - 150*	*08/24/16 07:49*	*08/25/16 20:25*	*1*
DCB Decachlorobiphenyl	*92*		*30 - 150*	*08/24/16 07:49*	*08/25/16 20:25*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	0.11	U	0.60	0.11	mg/L			08/22/16 20:34	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: OB-20B-081816
Date Collected: 08/18/16 12:50
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-10
Matrix: Water

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.06**	**D**	1.20	0.30	mg/L			08/30/16 18:01	10

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:54	2
Arsenic	**1.6**	**J**	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 20:28	2
Barium	**81.3**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:54	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 19:54	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 19:54	2
Cobalt	**30.7**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:54	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:54	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:54	2
Manganese	**9820**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 19:54	2
Nickel	**5.8**		4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:54	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 19:54	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 19:54	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 20:28	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 19:54	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 19:54	2
Aluminum	**35.8**	**J**	40.0	13.5	ug/L		08/26/16 21:49	08/28/16 19:54	2
Sodium	**4920**		200	87.6	ug/L		08/26/16 21:49	08/28/16 19:54	2
Magnesium	**11900**		200	68.4	ug/L		08/26/16 21:49	08/28/16 19:54	2
Potassium	**2780**		200	74.8	ug/L		08/26/16 21:49	08/28/16 19:54	2
Calcium	**57200**		200	69.5	ug/L		08/26/16 21:49	08/28/16 19:54	2
Iron	**44800**		120	49.1	ug/L		08/26/16 21:49	08/28/16 19:54	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 19:54	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:05	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 11:21	08/29/16 16:05	2
Barium	**41.9**		4.0	1.5	ug/L		08/29/16 11:21	09/01/16 10:14	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 11:21	08/29/16 16:05	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 11:21	08/29/16 16:05	2
Cobalt	**30.6**		4.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:05	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:05	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 16:05	2
Manganese	**10300**		8.0	3.0	ug/L		08/29/16 11:21	08/29/16 16:05	2
Nickel	**5.1**		4.0	1.6	ug/L		08/29/16 11:21	08/29/16 16:05	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 11:21	08/29/16 16:05	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 11:21	08/29/16 16:05	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 11:21	08/29/16 16:05	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 11:21	08/29/16 16:05	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 11:21	08/29/16 16:05	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 11:21	08/29/16 16:05	2
Sodium	**5150**		200	87.6	ug/L		08/29/16 11:21	08/29/16 16:05	2
Magnesium	**12300**		200	68.4	ug/L		08/29/16 11:21	08/29/16 16:05	2
Potassium	**3020**		200	74.8	ug/L		08/29/16 11:21	09/01/16 10:14	2
Calcium	**62600**		200	69.5	ug/L		08/29/16 11:21	08/29/16 16:05	2
Iron	**22700**		120	49.1	ug/L		08/29/16 11:21	08/29/16 16:05	2

Client Sample ID: OB-20B-081816

Date Collected: 08/18/16 12:50
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-10
Matrix: Water

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 11:21	08/29/16 16:05	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 11:57	08/24/16 14:34	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:43	1
Bicarbonate Alkalinity as CaCO3	**241**		5.0	5.0	mg/L			09/01/16 12:00	1
Alkalinity	**241**		5.0	5.0	mg/L			09/01/16 12:00	1

Client Sample ID: RW-6A-081816

Date Collected: 08/18/16 14:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-11
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 16:05	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 16:05	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*70 - 130*		*08/24/16 16:05*	*1*
4-Bromofluorobenzene	*104*		*70 - 130*		*08/24/16 16:05*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 20:02	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 20:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 20:02	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 20:02	1
1,1-Dichloroethane	**0.30**	**J**	1.0	0.24	ug/L			08/24/16 20:02	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 20:02	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 20:02	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 20:02	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 20:02	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 20:02	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 20:02	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 20:02	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 20:02	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 20:02	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 20:02	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 20:02	1
Acetone	**9.1**		5.0	1.1	ug/L			08/24/16 20:02	1
Benzene	**8.0**		1.0	0.090	ug/L			08/24/16 20:02	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 20:02	1

Client Sample ID: RW-6A-081816
Date Collected: 08/18/16 14:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-11
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 20:02	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 20:02	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 20:02	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 20:02	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 20:02	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 20:02	1
Chloroethane	**5.7**		1.0	0.37	ug/L			08/24/16 20:02	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 20:02	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 20:02	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 20:02	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 20:02	1
Cyclohexane	**3.6**		1.0	0.26	ug/L			08/24/16 20:02	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 20:02	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 20:02	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 20:02	1
Isopropylbenzene	**5.0**		1.0	0.32	ug/L			08/24/16 20:02	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 20:02	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 20:02	1
Methylcyclohexane	**1.0**		1.0	0.22	ug/L			08/24/16 20:02	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 20:02	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 20:02	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 20:02	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 20:02	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 20:02	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 20:02	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 20:02	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 20:02	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 20:02	1
Xylenes, Total	**9.7**		2.0	0.28	ug/L			08/24/16 20:02	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzene, propyl-	*6.3*	*J N*	*ug/L*		*8.69*	*103-65-1*		*08/24/16 20:02*	*1*
Benzene, 1,2,4-trimethyl-	*19*	*J N*	*ug/L*		*10.31*	*95-63-6*		*08/24/16 20:02*	*1*
Indane	*19*	*J N*	*ug/L*		*10.47*	*496-11-7*		*08/24/16 20:02*	*1*
Benzene, 4-ethyl-1,2-dimethyl-	*16*	*J N*	*ug/L*		*11.33*	*934-80-5*		*08/24/16 20:02*	*1*
Benzene, 1,2,4,5-tetramethyl-	*14*	*J N*	*ug/L*		*11.79*	*95-93-2*		*08/24/16 20:02*	*1*
1H-Indene, 2,3-dihydro-4-methyl-	*6.5*	*J N*	*ug/L*		*12.00*	*824-22-6*		*08/24/16 20:02*	*1*
3-Phenylbut-1-ene	*12*	*J N*	*ug/L*		*12.15*	*934-10-1*		*08/24/16 20:02*	*1*
Benzene, 1,2,3,5-tetramethyl-	*10*	*J N*	*ug/L*		*12.19*	*527-53-7*		*08/24/16 20:02*	*1*
Naphthalene	*9.1*	*J N*	*ug/L*		*12.69*	*91-20-3*		*08/24/16 20:02*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*08/24/16 20:02*	*1*
4-Bromofluorobenzene	*110*		*70 - 130*		*08/24/16 20:02*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*08/24/16 20:02*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*08/24/16 20:02*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/23/16 14:12	08/30/16 20:27	1

Client Sample ID: RW-6A-081816
Date Collected: 08/18/16 14:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-11
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/23/16 14:12	08/30/16 20:27	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/23/16 14:12	08/30/16 20:27	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/30/16 20:27	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/23/16 14:12	08/30/16 20:27	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/30/16 20:27	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/23/16 14:12	08/30/16 20:27	1
Pentachlorophenol	**0.12**	**J**	0.21	0.080	ug/L		08/23/16 14:12	08/30/16 20:27	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/23/16 14:12	08/28/16 14:42	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 14:42	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/23/16 14:12	08/28/16 14:42	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/23/16 14:12	08/28/16 14:42	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/23/16 14:12	08/28/16 14:42	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/23/16 14:12	08/28/16 14:42	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 14:42	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/23/16 14:12	08/28/16 14:42	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/23/16 14:12	08/28/16 14:42	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/23/16 14:12	08/28/16 14:42	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/23/16 14:12	08/28/16 14:42	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/23/16 14:12	08/28/16 14:42	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/23/16 14:12	08/28/16 14:42	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/23/16 14:12	08/28/16 14:42	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/23/16 14:12	08/28/16 14:42	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/23/16 14:12	08/28/16 14:42	1
Isophorone	0.70	U	10	0.70	ug/L		08/23/16 14:12	08/28/16 14:42	1
Naphthalene	**8.2**	**J**	10	0.83	ug/L		08/23/16 14:12	08/28/16 14:42	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/23/16 14:12	08/28/16 14:42	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/23/16 14:12	08/28/16 14:42	1
2-Methylnaphthalene	**1.3**	**J**	10	0.92	ug/L		08/23/16 14:12	08/28/16 14:42	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 14:42	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 14:42	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 14:42	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 14:42	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 14:42	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/23/16 14:12	08/28/16 14:42	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/28/16 14:42	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 14:42	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 14:42	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/23/16 14:12	08/28/16 14:42	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 14:42	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 14:42	1
Fluorene	0.83	U	10	0.83	ug/L		08/23/16 14:12	08/28/16 14:42	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/23/16 14:12	08/28/16 14:42	1
N-Nitrosodiphenylamine	**1.4**	**J**	10	0.77	ug/L		08/23/16 14:12	08/28/16 14:42	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 14:42	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 14:42	1
Anthracene	0.59	U	10	0.59	ug/L		08/23/16 14:12	08/28/16 14:42	1
Carbazole	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 14:42	1

Client Sample ID: RW-6A-081816
Date Collected: 08/18/16 14:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/28/16 14:42	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/23/16 14:12	08/28/16 14:42	1
Pyrene	0.86	U	10	0.86	ug/L		08/23/16 14:12	08/28/16 14:42	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/23/16 14:12	08/28/16 14:42	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/23/16 14:12	08/28/16 14:42	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/23/16 14:12	08/28/16 14:42	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 14:42	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/23/16 14:12	08/28/16 14:42	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/23/16 14:12	08/28/16 14:42	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 14:42	1
Acetophenone	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 14:42	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/23/16 14:12	08/28/16 14:42	1
Caprolactam	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 14:42	1
Atrazine	**1.8**	**J**	2.1	0.80	ug/L		08/23/16 14:12	08/28/16 14:42	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/23/16 14:12	08/28/16 14:42	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/23/16 14:12	08/28/16 14:42	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 14:42	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 14:42	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*79*		*30 - 130*	*08/23/16 14:12*	*08/28/16 14:42*	*1*
Phenol-d5 (Surr)	*30*		*15 - 110*	*08/23/16 14:12*	*08/28/16 14:42*	*1*
Terphenyl-d14 (Surr)	*80*		*30 - 130*	*08/23/16 14:12*	*08/28/16 14:42*	*1*
2,4,6-Tribromophenol (Surr)	*122*	*X*	*15 - 110*	*08/23/16 14:12*	*08/28/16 14:42*	*1*
2-Fluorophenol (Surr)	*42*		*15 - 110*	*08/23/16 14:12*	*08/28/16 14:42*	*1*
2-Fluorobiphenyl	*71*		*30 - 130*	*08/23/16 14:12*	*08/28/16 14:42*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 20:43	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 20:43	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 20:43	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 20:43	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 20:43	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 20:43	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 20:43	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 20:43	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 20:43	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 20:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*92*		*30 - 150*	*08/24/16 07:49*	*08/25/16 20:43*	*1*
DCB Decachlorobiphenyl	*98*		*30 - 150*	*08/24/16 07:49*	*08/25/16 20:43*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**0.75**		0.60	0.11	mg/L			08/22/16 22:42	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: RW-6A-081816
Date Collected: 08/18/16 14:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-11
Matrix: Water

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.11**	**D**	1.20	0.30	mg/L			08/30/16 20:09	10

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:59	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 20:34	2
Barium	**47.2**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:59	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 19:59	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 19:59	2
Cobalt	**20.3**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:59	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:59	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:59	2
Manganese	**14800**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 19:59	2
Nickel	**3.2**	**J**	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:59	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 19:59	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 19:59	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 20:34	2
Vanadium	**2.2**	**J**	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 19:59	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 19:59	2
Aluminum	**23.5**	**J**	40.0	13.5	ug/L		08/26/16 21:49	08/28/16 19:59	2
Sodium	**8240**		200	87.6	ug/L		08/26/16 21:49	08/28/16 19:59	2
Magnesium	**22000**		200	68.4	ug/L		08/26/16 21:49	08/28/16 19:59	2
Potassium	**2780**		200	74.8	ug/L		08/26/16 21:49	08/28/16 19:59	2
Calcium	**86200**		200	69.5	ug/L		08/26/16 21:49	08/28/16 19:59	2
Iron	**23600**		120	49.1	ug/L		08/26/16 21:49	08/28/16 19:59	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 19:59	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:11	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 11:21	08/29/16 16:11	2
Barium	**29.4**		4.0	1.5	ug/L		08/29/16 11:21	09/01/16 10:20	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 11:21	08/29/16 16:11	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 11:21	08/29/16 16:11	2
Cobalt	**19.3**		4.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:11	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:11	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 16:11	2
Manganese	**14800**		8.0	3.0	ug/L		08/29/16 11:21	08/29/16 16:11	2
Nickel	**3.2**	**J**	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 16:11	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 11:21	08/29/16 16:11	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 11:21	08/29/16 16:11	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 11:21	08/29/16 16:11	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 11:21	08/29/16 16:11	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 11:21	08/29/16 16:11	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 11:21	08/29/16 16:11	2
Sodium	**8190**		200	87.6	ug/L		08/29/16 11:21	08/29/16 16:11	2
Magnesium	**21500**		200	68.4	ug/L		08/29/16 11:21	08/29/16 16:11	2
Potassium	**3010**		200	74.8	ug/L		08/29/16 11:21	09/01/16 10:20	2
Calcium	**91000**		200	69.5	ug/L		08/29/16 11:21	08/29/16 16:11	2
Iron	**7170**		120	49.1	ug/L		08/29/16 11:21	08/29/16 16:11	2

Client Sample ID: RW-6A-081816

Lab Sample ID: 460-118898-11

Date Collected: 08/18/16 14:30

Matrix: Water

Date Received: 08/19/16 11:10

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 11:21	08/29/16 16:11	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 11:57	08/24/16 14:36	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:44	1
Bicarbonate Alkalinity as CaCO3	**352**		5.0	5.0	mg/L			09/01/16 12:00	1
Alkalinity	**352**		5.0	5.0	mg/L			09/01/16 12:00	1

Client Sample ID: RW-5A-081816

Lab Sample ID: 460-118898-12

Date Collected: 08/18/16 14:45

Matrix: Water

Date Received: 08/19/16 11:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 16:30	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 16:30	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*08/24/16 16:30*	*1*
4-Bromofluorobenzene	*98*		*70 - 130*		*08/24/16 16:30*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 20:29	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 20:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 20:29	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 20:29	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 20:29	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 20:29	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 20:29	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 20:29	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 20:29	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 20:29	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 20:29	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 20:29	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 20:29	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 20:29	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 20:29	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 20:29	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 20:29	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 20:29	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 20:29	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: RW-5A-081816
Date Collected: 08/18/16 14:45
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 20:29	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 20:29	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 20:29	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 20:29	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 20:29	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 20:29	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 20:29	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 20:29	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 20:29	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 20:29	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 20:29	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 20:29	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 20:29	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 20:29	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 20:29	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 20:29	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 20:29	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 20:29	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 20:29	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 20:29	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 20:29	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 20:29	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 20:29	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 20:29	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 20:29	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 20:29	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 20:29	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 20:29	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 20:29	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 20:29*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*08/24/16 20:29*	*1*
4-Bromofluorobenzene	*108*		*70 - 130*		*08/24/16 20:29*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*08/24/16 20:29*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*08/24/16 20:29*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/23/16 14:12	08/30/16 20:56	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/23/16 14:12	08/30/16 20:56	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/23/16 14:12	08/30/16 20:56	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/30/16 20:56	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/23/16 14:12	08/30/16 20:56	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/30/16 20:56	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/23/16 14:12	08/30/16 20:56	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/23/16 14:12	08/30/16 20:56	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: RW-5A-081816
Date Collected: 08/18/16 14:45
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-12
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/23/16 14:12	08/28/16 15:04	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 15:04	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/23/16 14:12	08/28/16 15:04	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/23/16 14:12	08/28/16 15:04	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/23/16 14:12	08/28/16 15:04	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/23/16 14:12	08/28/16 15:04	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 15:04	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/23/16 14:12	08/28/16 15:04	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/23/16 14:12	08/28/16 15:04	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/23/16 14:12	08/28/16 15:04	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/23/16 14:12	08/28/16 15:04	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/23/16 14:12	08/28/16 15:04	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/23/16 14:12	08/28/16 15:04	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/23/16 14:12	08/28/16 15:04	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/23/16 14:12	08/28/16 15:04	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/23/16 14:12	08/28/16 15:04	1
Isophorone	0.70	U	10	0.70	ug/L		08/23/16 14:12	08/28/16 15:04	1
Naphthalene	0.83	U	10	0.83	ug/L		08/23/16 14:12	08/28/16 15:04	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/23/16 14:12	08/28/16 15:04	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/23/16 14:12	08/28/16 15:04	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 15:04	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 15:04	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 15:04	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 15:04	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 15:04	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 15:04	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/23/16 14:12	08/28/16 15:04	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/28/16 15:04	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 15:04	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 15:04	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/23/16 14:12	08/28/16 15:04	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 15:04	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 15:04	1
Fluorene	0.83	U	10	0.83	ug/L		08/23/16 14:12	08/28/16 15:04	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/23/16 14:12	08/28/16 15:04	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 15:04	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 15:04	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 15:04	1
Anthracene	0.59	U	10	0.59	ug/L		08/23/16 14:12	08/28/16 15:04	1
Carbazole	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 15:04	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/28/16 15:04	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/23/16 14:12	08/28/16 15:04	1
Pyrene	0.86	U	10	0.86	ug/L		08/23/16 14:12	08/28/16 15:04	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/23/16 14:12	08/28/16 15:04	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/23/16 14:12	08/28/16 15:04	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/23/16 14:12	08/28/16 15:04	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 15:04	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/23/16 14:12	08/28/16 15:04	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/23/16 14:12	08/28/16 15:04	1

Client Sample ID: RW-5A-081816
Date Collected: 08/18/16 14:45
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-12
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 15:04	1
Acetophenone	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 15:04	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/23/16 14:12	08/28/16 15:04	1
Caprolactam	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 15:04	1
Atrazine	**1.5**	**J**	2.1	0.80	ug/L		08/23/16 14:12	08/28/16 15:04	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/23/16 14:12	08/28/16 15:04	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/23/16 14:12	08/28/16 15:04	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 15:04	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 15:04	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*88*		*30 - 130*	*08/23/16 14:12*	*08/28/16 15:04*	*1*
Phenol-d5 (Surr)	*31*		*15 - 110*	*08/23/16 14:12*	*08/28/16 15:04*	*1*
Terphenyl-d14 (Surr)	*86*		*30 - 130*	*08/23/16 14:12*	*08/28/16 15:04*	*1*
2,4,6-Tribromophenol (Surr)	*120*	*X*	*15 - 110*	*08/23/16 14:12*	*08/28/16 15:04*	*1*
2-Fluorophenol (Surr)	*45*		*15 - 110*	*08/23/16 14:12*	*08/28/16 15:04*	*1*
2-Fluorobiphenyl	*74*		*30 - 130*	*08/23/16 14:12*	*08/28/16 15:04*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:00	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:00	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:00	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:00	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:00	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:00	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 21:00	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 21:00	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 21:00	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*95*		*30 - 150*	*08/24/16 07:49*	*08/25/16 21:00*	*1*
DCB Decachlorobiphenyl	*102*		*30 - 150*	*08/24/16 07:49*	*08/25/16 21:00*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**9.19**		0.60	0.11	mg/L			08/22/16 23:00	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.69**	**D**	1.20	0.30	mg/L			08/30/16 21:22	10

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:01	2
Arsenic	**0.97**	**J**	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 20:39	2
Barium	**17.8**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:01	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 20:01	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 20:01	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: RW-5A-081816
Date Collected: 08/18/16 14:45
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-12
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:01	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:01	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:01	2
Manganese	**678**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 20:01	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:01	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 20:01	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 20:01	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 20:39	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 20:01	2
Zinc	**6.8**	**J**	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 20:01	2
Aluminum	**65.9**		40.0	13.5	ug/L		08/26/16 21:49	08/28/16 20:01	2
Sodium	**6330**		200	87.6	ug/L		08/26/16 21:49	08/28/16 20:01	2
Magnesium	**7340**		200	68.4	ug/L		08/26/16 21:49	08/28/16 20:01	2
Potassium	**7850**		200	74.8	ug/L		08/26/16 21:49	08/28/16 20:01	2
Calcium	**58500**		200	69.5	ug/L		08/26/16 21:49	08/28/16 20:01	2
Iron	**306**		120	49.1	ug/L		08/26/16 21:49	08/28/16 20:01	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 20:01	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:16	2
Arsenic	**1.3**	**J**	2.0	0.71	ug/L		08/29/16 11:21	08/29/16 16:16	2
Barium	**17.8**		4.0	1.5	ug/L		08/29/16 11:21	09/01/16 10:26	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 11:21	08/29/16 16:16	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 11:21	08/29/16 16:16	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:16	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:16	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 16:16	2
Manganese	**675**		8.0	3.0	ug/L		08/29/16 11:21	08/29/16 16:16	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 16:16	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 11:21	08/29/16 16:16	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 11:21	08/29/16 16:16	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 11:21	08/29/16 16:16	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 11:21	08/29/16 16:16	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 11:21	08/29/16 16:16	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 11:21	08/29/16 16:16	2
Sodium	**6140**		200	87.6	ug/L		08/29/16 11:21	08/29/16 16:16	2
Magnesium	**7290**		200	68.4	ug/L		08/29/16 11:21	08/29/16 16:16	2
Potassium	**8540**		200	74.8	ug/L		08/29/16 11:21	09/01/16 10:26	2
Calcium	**62500**		200	69.5	ug/L		08/29/16 11:21	08/29/16 16:16	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 11:21	08/29/16 16:16	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 11:21	08/29/16 16:16	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 11:57	08/24/16 14:37	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:11	1

Client Sample ID: RW-5A-081816

Lab Sample ID: 460-118898-12

Date Collected: 08/18/16 14:45

Matrix: Water

Date Received: 08/19/16 11:10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:45	1
Bicarbonate Alkalinity as CaCO3	**191**		5.0	5.0	mg/L			09/01/16 12:00	1
Alkalinity	**191**		5.0	5.0	mg/L			09/01/16 12:00	1

Client Sample ID: OB-7-081816

Lab Sample ID: 460-118898-13

Date Collected: 08/18/16 15:10

Matrix: Water

Date Received: 08/19/16 11:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 19:00	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 19:00	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/24/16 19:00*	*1*
4-Bromofluorobenzene	*91*		*70 - 130*		*08/24/16 19:00*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 20:56	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 20:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 20:56	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 20:56	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 20:56	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 20:56	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 20:56	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 20:56	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 20:56	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 20:56	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 20:56	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 20:56	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 20:56	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 20:56	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 20:56	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 20:56	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 20:56	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 20:56	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 20:56	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 20:56	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 20:56	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 20:56	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 20:56	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 20:56	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 20:56	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 20:56	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 20:56	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 20:56	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 20:56	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 20:56	1

Client Sample ID: OB-7-081816

Date Collected: 08/18/16 15:10
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-13

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 20:56	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 20:56	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 20:56	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 20:56	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 20:56	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 20:56	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 20:56	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 20:56	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 20:56	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 20:56	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 20:56	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 20:56	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 20:56	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 20:56	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 20:56	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 20:56	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 20:56	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 20:56	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 20:56*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*08/24/16 20:56*	*1*
4-Bromofluorobenzene	*107*		*70 - 130*		*08/24/16 20:56*	*1*
Dibromofluoromethane (Surr)	*104*		*70 - 130*		*08/24/16 20:56*	*1*
Toluene-d8 (Surr)	*90*		*70 - 130*		*08/24/16 20:56*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/23/16 14:12	08/30/16 21:25	1
Benzo[a]pyrene	0.027	U	0.053	0.027	ug/L		08/23/16 14:12	08/30/16 21:25	1
Benzo[b]fluoranthene	0.013	U	0.053	0.013	ug/L		08/23/16 14:12	08/30/16 21:25	1
Bis(2-chloroethyl)ether	0.0095	U	0.021	0.0095	ug/L		08/23/16 14:12	08/30/16 21:25	1
Dibenz(a,h)anthracene	0.023	U	0.053	0.023	ug/L		08/23/16 14:12	08/30/16 21:25	1
Hexachlorobenzene	0.0095	U	0.021	0.0095	ug/L		08/23/16 14:12	08/30/16 21:25	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.053	0.028	ug/L		08/23/16 14:12	08/30/16 21:25	1
Pentachlorophenol	**0.10**	**J**	0.21	0.081	ug/L		08/23/16 14:12	08/30/16 21:25	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	11	0.43	ug/L		08/23/16 14:12	08/28/16 15:25	1
2-Chlorophenol	0.78	U	11	0.78	ug/L		08/23/16 14:12	08/28/16 15:25	1
2-Methylphenol	1.4	U *	11	1.4	ug/L		08/23/16 14:12	08/28/16 15:25	1
4-Methylphenol	0.91	U	11	0.91	ug/L		08/23/16 14:12	08/28/16 15:25	1
2-Nitrophenol	0.62	U	11	0.62	ug/L		08/23/16 14:12	08/28/16 15:25	1
2,4-Dimethylphenol	0.96	U	11	0.96	ug/L		08/23/16 14:12	08/28/16 15:25	1
2,4-Dichlorophenol	0.66	U	11	0.66	ug/L		08/23/16 14:12	08/28/16 15:25	1
4-Chloro-3-methylphenol	0.80	U	11	0.80	ug/L		08/23/16 14:12	08/28/16 15:25	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/23/16 14:12	08/28/16 15:25	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: OB-7-081816
Date Collected: 08/18/16 15:10
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-13
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.51	U	11	0.51	ug/L		08/23/16 14:12	08/28/16 15:25	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/23/16 14:12	08/28/16 15:25	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/23/16 14:12	08/28/16 15:25	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/23/16 14:12	08/28/16 15:25	1
N-Nitrosodi-n-propylamine	0.87	U	1.1	0.87	ug/L		08/23/16 14:12	08/28/16 15:25	1
Hexachloroethane	0.095	U	1.1	0.095	ug/L		08/23/16 14:12	08/28/16 15:25	1
Nitrobenzene	0.51	U	1.1	0.51	ug/L		08/23/16 14:12	08/28/16 15:25	1
Isophorone	0.70	U	11	0.70	ug/L		08/23/16 14:12	08/28/16 15:25	1
Naphthalene	0.84	U	11	0.84	ug/L		08/23/16 14:12	08/28/16 15:25	1
4-Chloroaniline	0.77	U	11	0.77	ug/L		08/23/16 14:12	08/28/16 15:25	1
Hexachlorobutadiene	0.80	U	1.1	0.80	ug/L		08/23/16 14:12	08/28/16 15:25	1
2-Methylnaphthalene	0.92	U	11	0.92	ug/L		08/23/16 14:12	08/28/16 15:25	1
Hexachlorocyclopentadiene	0.64	U	11	0.64	ug/L		08/23/16 14:12	08/28/16 15:25	1
2-Chloronaphthalene	0.64	U	11	0.64	ug/L		08/23/16 14:12	08/28/16 15:25	1
2-Nitroaniline	0.68	U	11	0.68	ug/L		08/23/16 14:12	08/28/16 15:25	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/23/16 14:12	08/28/16 15:25	1
Acenaphthylene	0.68	U	11	0.68	ug/L		08/23/16 14:12	08/28/16 15:25	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/23/16 14:12	08/28/16 15:25	1
3-Nitroaniline	0.86	U	11	0.86	ug/L		08/23/16 14:12	08/28/16 15:25	1
Acenaphthene	0.92	U	11	0.92	ug/L		08/23/16 14:12	08/28/16 15:25	1
Dibenzofuran	0.89	U	11	0.89	ug/L		08/23/16 14:12	08/28/16 15:25	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/23/16 14:12	08/28/16 15:25	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/23/16 14:12	08/28/16 15:25	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/23/16 14:12	08/28/16 15:25	1
Fluorene	0.84	U	11	0.84	ug/L		08/23/16 14:12	08/28/16 15:25	1
4-Nitroaniline	0.50	U	11	0.50	ug/L		08/23/16 14:12	08/28/16 15:25	1
N-Nitrosodiphenylamine	0.78	U	11	0.78	ug/L		08/23/16 14:12	08/28/16 15:25	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/23/16 14:12	08/28/16 15:25	1
Phenanthrene	0.68	U	11	0.68	ug/L		08/23/16 14:12	08/28/16 15:25	1
Anthracene	0.60	U	11	0.60	ug/L		08/23/16 14:12	08/28/16 15:25	1
Carbazole	0.89	U	11	0.89	ug/L		08/23/16 14:12	08/28/16 15:25	1
Di-n-butyl phthalate	0.86	U	11	0.86	ug/L		08/23/16 14:12	08/28/16 15:25	1
Fluoranthene	0.76	U	11	0.76	ug/L		08/23/16 14:12	08/28/16 15:25	1
Pyrene	0.87	U	11	0.87	ug/L		08/23/16 14:12	08/28/16 15:25	1
Butyl benzyl phthalate	0.63	U	11	0.63	ug/L		08/23/16 14:12	08/28/16 15:25	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/23/16 14:12	08/28/16 15:25	1
Bis(2-ethylhexyl) phthalate	0.76	U	2.1	0.76	ug/L		08/23/16 14:12	08/28/16 15:25	1
Di-n-octyl phthalate	0.72	U	11	0.72	ug/L		08/23/16 14:12	08/28/16 15:25	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/23/16 14:12	08/28/16 15:25	1
Benzo[g,h,i]perylene	0.79	U	11	0.79	ug/L		08/23/16 14:12	08/28/16 15:25	1
1,1'-Biphenyl	0.66	U	11	0.66	ug/L		08/23/16 14:12	08/28/16 15:25	1
Acetophenone	1.1	U	11	1.1	ug/L		08/23/16 14:12	08/28/16 15:25	1
Benzaldehyde	0.90	U	11	0.90	ug/L		08/23/16 14:12	08/28/16 15:25	1
Caprolactam	1.1	U	11	1.1	ug/L		08/23/16 14:12	08/28/16 15:25	1
Atrazine	0.81	U	2.1	0.81	ug/L		08/23/16 14:12	08/28/16 15:25	1
2,2'-oxybis[1-chloropropane]	0.98	U	11	0.98	ug/L		08/23/16 14:12	08/28/16 15:25	1
1,2,4,5-Tetrachlorobenzene	0.45	U	11	0.45	ug/L		08/23/16 14:12	08/28/16 15:25	1
2,3,4,6-Tetrachlorophenol	0.72	U	11	0.72	ug/L		08/23/16 14:12	08/28/16 15:25	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/23/16 14:12	08/28/16 15:25	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: OB-7-081816
Date Collected: 08/18/16 15:10
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-13
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.72	U	11	0.72	ug/L		08/23/16 14:12	08/28/16 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*89*		*30 - 130*	*08/23/16 14:12*	*08/28/16 15:25*	*1*
Phenol-d5 (Surr)	*33*		*15 - 110*	*08/23/16 14:12*	*08/28/16 15:25*	*1*
Terphenyl-d14 (Surr)	*87*		*30 - 130*	*08/23/16 14:12*	*08/28/16 15:25*	*1*
2,4,6-Tribromophenol (Surr)	*125*	*X*	*15 - 110*	*08/23/16 14:12*	*08/28/16 15:25*	*1*
2-Fluorophenol (Surr)	*49*		*15 - 110*	*08/23/16 14:12*	*08/28/16 15:25*	*1*
2-Fluorobiphenyl	*77*		*30 - 130*	*08/23/16 14:12*	*08/28/16 15:25*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:18	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:18	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:18	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:18	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:18	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:18	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 21:18	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 21:18	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 21:18	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 21:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*96*		*30 - 150*	*08/24/16 07:49*	*08/25/16 21:18*	*1*
DCB Decachlorobiphenyl	*104*		*30 - 150*	*08/24/16 07:49*	*08/25/16 21:18*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**8.10**		0.60	0.11	mg/L			08/22/16 23:18	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.59**	**D**	1.20	0.30	mg/L			08/30/16 21:40	10

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:07	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 20:45	2
Barium	**18.1**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:07	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 20:07	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 20:07	2
Cobalt	**2.9**	**J**	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:07	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:07	2
Copper	**3.3**	**J**	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:07	2
Manganese	**2710**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 20:07	2
Nickel	**2.1**	**J**	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:07	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 20:07	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 20:07	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 20:45	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 20:07	2

Client Sample ID: OB-7-081816
Date Collected: 08/18/16 15:10
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-13
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 20:07	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 21:49	08/28/16 20:07	2
Sodium	**10600**		200	87.6	ug/L		08/26/16 21:49	08/28/16 20:07	2
Magnesium	**30500**		200	68.4	ug/L		08/26/16 21:49	08/28/16 20:07	2
Potassium	**2810**		200	74.8	ug/L		08/26/16 21:49	08/28/16 20:07	2
Calcium	**69900**		200	69.5	ug/L		08/26/16 21:49	08/28/16 20:07	2
Iron	**2360**		120	49.1	ug/L		08/26/16 21:49	08/28/16 20:07	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 20:07	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:22	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 11:21	08/29/16 16:22	2
Barium	**17.8**		4.0	1.5	ug/L		08/29/16 11:21	09/01/16 10:31	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 11:21	08/29/16 16:22	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 11:21	08/29/16 16:22	2
Cobalt	**2.6**	**J**	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:22	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:22	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 16:22	2
Manganese	**2670**		8.0	3.0	ug/L		08/29/16 11:21	08/29/16 16:22	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 16:22	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 11:21	08/29/16 16:22	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 11:21	08/29/16 16:22	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 11:21	08/29/16 16:22	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 11:21	08/29/16 16:22	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 11:21	08/29/16 16:22	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 11:21	08/29/16 16:22	2
Sodium	**10400**		200	87.6	ug/L		08/29/16 11:21	08/29/16 16:22	2
Magnesium	**29500**		200	68.4	ug/L		08/29/16 11:21	08/29/16 16:22	2
Potassium	**3080**		200	74.8	ug/L		08/29/16 11:21	09/01/16 10:31	2
Calcium	**73900**		200	69.5	ug/L		08/29/16 11:21	08/29/16 16:22	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 11:21	08/29/16 16:22	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 11:21	08/29/16 16:22	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 11:57	08/24/16 14:39	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:45	1
Bicarbonate Alkalinity as CaCO3	**310**		5.0	5.0	mg/L			09/01/16 12:00	1
Alkalinity	**310**		5.0	5.0	mg/L			09/01/16 12:00	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: OB-25-081816
Date Collected: 08/18/16 16:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-14
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 19:25	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 19:25	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/24/16 19:25*	*1*
4-Bromofluorobenzene	*91*		*70 - 130*		*08/24/16 19:25*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 21:23	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 21:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 21:23	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 21:23	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 21:23	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 21:23	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 21:23	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 21:23	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 21:23	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 21:23	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 21:23	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 21:23	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 21:23	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 21:23	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 21:23	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 21:23	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 21:23	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 21:23	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 21:23	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 21:23	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 21:23	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 21:23	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 21:23	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 21:23	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 21:23	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 21:23	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 21:23	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 21:23	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 21:23	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 21:23	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 21:23	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 21:23	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 21:23	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 21:23	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 21:23	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 21:23	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 21:23	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 21:23	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 21:23	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 21:23	1

Client Sample ID: OB-25-081816
Date Collected: 08/18/16 16:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-14
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 21:23	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 21:23	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 21:23	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 21:23	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 21:23	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 21:23	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 21:23	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 21:23	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 21:23*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*08/24/16 21:23*	*1*
4-Bromofluorobenzene	*107*		*70 - 130*		*08/24/16 21:23*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*08/24/16 21:23*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*08/24/16 21:23*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/23/16 14:12	08/31/16 12:33	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/23/16 14:12	08/31/16 12:33	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/23/16 14:12	08/31/16 12:33	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/31/16 12:33	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/23/16 14:12	08/31/16 12:33	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/31/16 12:33	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/23/16 14:12	08/31/16 12:33	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/23/16 14:12	08/31/16 12:33	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/23/16 14:12	08/28/16 15:46	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 15:46	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/23/16 14:12	08/28/16 15:46	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/23/16 14:12	08/28/16 15:46	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/23/16 14:12	08/28/16 15:46	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/23/16 14:12	08/28/16 15:46	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 15:46	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/23/16 14:12	08/28/16 15:46	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/23/16 14:12	08/28/16 15:46	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/23/16 14:12	08/28/16 15:46	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/23/16 14:12	08/28/16 15:46	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/23/16 14:12	08/28/16 15:46	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/23/16 14:12	08/28/16 15:46	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/23/16 14:12	08/28/16 15:46	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/23/16 14:12	08/28/16 15:46	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/23/16 14:12	08/28/16 15:46	1
Isophorone	0.70	U	10	0.70	ug/L		08/23/16 14:12	08/28/16 15:46	1
Naphthalene	0.83	U	10	0.83	ug/L		08/23/16 14:12	08/28/16 15:46	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/23/16 14:12	08/28/16 15:46	1

Client Sample ID: OB-25-081816
Date Collected: 08/18/16 16:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-14
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/23/16 14:12	08/28/16 15:46	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 15:46	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 15:46	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 15:46	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 15:46	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 15:46	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 15:46	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/23/16 14:12	08/28/16 15:46	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/28/16 15:46	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 15:46	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 15:46	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/23/16 14:12	08/28/16 15:46	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 15:46	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 15:46	1
Fluorene	0.83	U	10	0.83	ug/L		08/23/16 14:12	08/28/16 15:46	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/23/16 14:12	08/28/16 15:46	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 15:46	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 15:46	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 15:46	1
Anthracene	0.59	U	10	0.59	ug/L		08/23/16 14:12	08/28/16 15:46	1
Carbazole	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 15:46	1
Di-n-butyl phthalate	**1.5**	**J**	10	0.85	ug/L		08/23/16 14:12	08/28/16 15:46	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/23/16 14:12	08/28/16 15:46	1
Pyrene	0.86	U	10	0.86	ug/L		08/23/16 14:12	08/28/16 15:46	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/23/16 14:12	08/28/16 15:46	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/23/16 14:12	08/28/16 15:46	1
Bis(2-ethylhexyl) phthalate	**1.8**	**J**	2.1	0.75	ug/L		08/23/16 14:12	08/28/16 15:46	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 15:46	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/23/16 14:12	08/28/16 15:46	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/23/16 14:12	08/28/16 15:46	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 15:46	1
Acetophenone	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 15:46	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/23/16 14:12	08/28/16 15:46	1
Caprolactam	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 15:46	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/23/16 14:12	08/28/16 15:46	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/23/16 14:12	08/28/16 15:46	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/23/16 14:12	08/28/16 15:46	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 15:46	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 15:46	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 15:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*85*		*30 - 130*	*08/23/16 14:12*	*08/28/16 15:46*	*1*
Phenol-d5 (Surr)	*30*		*15 - 110*	*08/23/16 14:12*	*08/28/16 15:46*	*1*
Terphenyl-d14 (Surr)	*80*		*30 - 130*	*08/23/16 14:12*	*08/28/16 15:46*	*1*
2,4,6-Tribromophenol (Surr)	*122*	*X*	*15 - 110*	*08/23/16 14:12*	*08/28/16 15:46*	*1*
2-Fluorophenol (Surr)	*45*		*15 - 110*	*08/23/16 14:12*	*08/28/16 15:46*	*1*
2-Fluorobiphenyl	*78*		*30 - 130*	*08/23/16 14:12*	*08/28/16 15:46*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: OB-25-081816
Date Collected: 08/18/16 16:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-14
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:36	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:36	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:36	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:36	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:36	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 21:36	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 21:36	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 21:36	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 21:36	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 21:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*30 - 150*	*08/24/16 07:49*	*08/25/16 21:36*	*1*
DCB Decachlorobiphenyl	*86*		*30 - 150*	*08/24/16 07:49*	*08/25/16 21:36*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**18.9**		0.60	0.11	mg/L			08/22/16 23:37	1

Method: 9056A - Anions, Ion Chromatography - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**108**	**D**	12.0	3.00	mg/L			08/24/16 14:52	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:17	2
Arsenic	**0.97**	**J**	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 20:50	2
Barium	**45.6**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:17	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 20:17	2
Cadmium	**0.82**	**J**	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 20:17	2
Cobalt	**2.0**	**J**	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:17	2
Chromium	**1.6**	**J**	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:17	2
Copper	**20.0**		4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:17	2
Manganese	**178**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 20:17	2
Nickel	**3.5**	**J**	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:17	2
Lead	**6.8**		1.2	0.44	ug/L		08/26/16 21:49	08/28/16 20:17	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 20:17	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 20:50	2
Vanadium	**2.7**	**J**	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 20:17	2
Zinc	**28.6**		16.0	6.5	ug/L		08/26/16 21:49	08/28/16 20:17	2
Aluminum	**804**		40.0	13.5	ug/L		08/26/16 21:49	08/28/16 20:17	2
Sodium	**71300**		200	87.6	ug/L		08/26/16 21:49	08/28/16 20:17	2
Magnesium	**9930**		200	68.4	ug/L		08/26/16 21:49	08/28/16 20:17	2
Potassium	**7350**		200	74.8	ug/L		08/26/16 21:49	08/28/16 20:17	2
Calcium	**42900**		200	69.5	ug/L		08/26/16 21:49	08/28/16 20:17	2
Iron	**1260**		120	49.1	ug/L		08/26/16 21:49	08/28/16 20:17	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 20:17	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:35	2

Client Sample ID: OB-25-081816

Lab Sample ID: 460-118898-14

Date Collected: 08/18/16 16:30

Matrix: Water

Date Received: 08/19/16 11:10

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 11:21	08/29/16 16:35	2
Barium	**34.2**		4.0	1.5	ug/L		08/29/16 11:21	09/01/16 10:37	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 11:21	08/29/16 16:35	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 11:21	08/29/16 16:35	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:35	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 16:35	2
Copper	**78.9**		4.0	1.6	ug/L		08/29/16 11:21	08/29/16 16:35	2
Manganese	**5.0**	**J**	8.0	3.0	ug/L		08/29/16 11:21	08/29/16 16:35	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 16:35	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 11:21	08/29/16 16:35	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 11:21	08/29/16 16:35	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 11:21	08/29/16 16:35	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 11:21	08/29/16 16:35	2
Zinc	**8.7**	**J**	16.0	6.5	ug/L		08/29/16 11:21	08/29/16 16:35	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 11:21	08/29/16 16:35	2
Sodium	**67600**		200	87.6	ug/L		08/29/16 11:21	08/29/16 16:35	2
Magnesium	**9310**		200	68.4	ug/L		08/29/16 11:21	08/29/16 16:35	2
Potassium	**7940**		200	74.8	ug/L		08/29/16 11:21	09/01/16 10:37	2
Calcium	**44000**		200	69.5	ug/L		08/29/16 11:21	08/29/16 16:35	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 11:21	08/29/16 16:35	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 11:21	08/29/16 16:35	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 11:57	08/24/16 14:41	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:48	1
Bicarbonate Alkalinity as CaCO3	**137**		5.0	5.0	mg/L			09/01/16 12:00	1
Alkalinity	**137**		5.0	5.0	mg/L			09/01/16 12:00	1

Client Sample ID: RW-5-081816

Lab Sample ID: 460-118898-15

Date Collected: 08/18/16 16:50

Matrix: Water

Date Received: 08/19/16 11:10

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/26/16 02:33	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 02:33	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 02:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/26/16 02:33*	*1*
4-Bromofluorobenzene	*93*		*70 - 130*		*08/26/16 02:33*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: RW-5-081816
Date Collected: 08/18/16 16:50
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-15
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 21:49	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 21:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 21:49	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 21:49	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 21:49	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 21:49	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 21:49	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 21:49	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 21:49	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 21:49	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 21:49	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 21:49	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 21:49	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 21:49	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 21:49	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 21:49	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 21:49	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 21:49	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 21:49	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 21:49	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 21:49	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 21:49	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 21:49	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 21:49	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 21:49	1
Chloroethane	**2.6**		1.0	0.37	ug/L			08/24/16 21:49	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 21:49	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 21:49	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 21:49	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 21:49	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 21:49	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 21:49	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 21:49	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 21:49	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 21:49	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 21:49	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 21:49	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 21:49	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 21:49	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 21:49	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 21:49	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 21:49	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 21:49	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 21:49	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 21:49	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 21:49	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 21:49	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 21:49	1

Client Sample ID: RW-5-081816
Date Collected: 08/18/16 16:50
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-15
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/24/16 21:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		08/24/16 21:49	1
4-Bromofluorobenzene	105		70 - 130		08/24/16 21:49	1
Dibromofluoromethane (Surr)	108		70 - 130		08/24/16 21:49	1
Toluene-d8 (Surr)	91		70 - 130		08/24/16 21:49	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/23/16 14:12	08/31/16 13:02	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/23/16 14:12	08/31/16 13:02	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/23/16 14:12	08/31/16 13:02	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/31/16 13:02	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/23/16 14:12	08/31/16 13:02	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/23/16 14:12	08/31/16 13:02	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/23/16 14:12	08/31/16 13:02	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/23/16 14:12	08/31/16 13:02	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/23/16 14:12	08/28/16 16:07	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 16:07	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/23/16 14:12	08/28/16 16:07	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/23/16 14:12	08/28/16 16:07	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/23/16 14:12	08/28/16 16:07	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/23/16 14:12	08/28/16 16:07	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 16:07	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/23/16 14:12	08/28/16 16:07	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/23/16 14:12	08/28/16 16:07	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/23/16 14:12	08/28/16 16:07	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/23/16 14:12	08/28/16 16:07	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/23/16 14:12	08/28/16 16:07	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/23/16 14:12	08/28/16 16:07	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/23/16 14:12	08/28/16 16:07	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/23/16 14:12	08/28/16 16:07	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/23/16 14:12	08/28/16 16:07	1
Isophorone	0.70	U	10	0.70	ug/L		08/23/16 14:12	08/28/16 16:07	1
Naphthalene	0.83	U	10	0.83	ug/L		08/23/16 14:12	08/28/16 16:07	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/23/16 14:12	08/28/16 16:07	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/23/16 14:12	08/28/16 16:07	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 16:07	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 16:07	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/23/16 14:12	08/28/16 16:07	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 16:07	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 16:07	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 16:07	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/23/16 14:12	08/28/16 16:07	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/28/16 16:07	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/23/16 14:12	08/28/16 16:07	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 16:07	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: RW-5-081816
Date Collected: 08/18/16 16:50
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-15
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/23/16 14:12	08/28/16 16:07	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 16:07	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/28/16 16:07	1
Fluorene	0.83	U	10	0.83	ug/L		08/23/16 14:12	08/28/16 16:07	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/23/16 14:12	08/28/16 16:07	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/23/16 14:12	08/28/16 16:07	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 16:07	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/23/16 14:12	08/28/16 16:07	1
Anthracene	0.59	U	10	0.59	ug/L		08/23/16 14:12	08/28/16 16:07	1
Carbazole	0.89	U	10	0.89	ug/L		08/23/16 14:12	08/28/16 16:07	1
Di-n-butyl phthalate	**1.5**	**J**	10	0.85	ug/L		08/23/16 14:12	08/28/16 16:07	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/23/16 14:12	08/28/16 16:07	1
Pyrene	0.86	U	10	0.86	ug/L		08/23/16 14:12	08/28/16 16:07	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/23/16 14:12	08/28/16 16:07	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/23/16 14:12	08/28/16 16:07	1
Bis(2-ethylhexyl) phthalate	**2.3**		2.1	0.75	ug/L		08/23/16 14:12	08/28/16 16:07	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 16:07	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/23/16 14:12	08/28/16 16:07	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/23/16 14:12	08/28/16 16:07	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/23/16 14:12	08/28/16 16:07	1
Acetophenone	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 16:07	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/23/16 14:12	08/28/16 16:07	1
Caprolactam	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 16:07	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/23/16 14:12	08/28/16 16:07	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/23/16 14:12	08/28/16 16:07	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/23/16 14:12	08/28/16 16:07	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 16:07	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/28/16 16:07	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/28/16 16:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*80*		*30 - 130*	*08/23/16 14:12*	*08/28/16 16:07*	*1*
Phenol-d5 (Surr)	*28*		*15 - 110*	*08/23/16 14:12*	*08/28/16 16:07*	*1*
Terphenyl-d14 (Surr)	*81*		*30 - 130*	*08/23/16 14:12*	*08/28/16 16:07*	*1*
2,4,6-Tribromophenol (Surr)	*115*	*X*	*15 - 110*	*08/23/16 14:12*	*08/28/16 16:07*	*1*
2-Fluorophenol (Surr)	*39*		*15 - 110*	*08/23/16 14:12*	*08/28/16 16:07*	*1*
2-Fluorobiphenyl	*79*		*30 - 130*	*08/23/16 14:12*	*08/28/16 16:07*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:07	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:07	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:07	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:07	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:07	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:07	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 09:07	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 09:07	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 09:07	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 09:07	1

Client Sample ID: RW-5-081816

Date Collected: 08/18/16 16:50
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-15

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*30 - 150*	*08/24/16 19:43*	*08/25/16 09:07*	*1*
DCB Decachlorobiphenyl	*135*		*30 - 150*	*08/24/16 19:43*	*08/25/16 09:07*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.20**		0.12	0.030	mg/L			08/22/16 23:55	1
Sulfate	**20.0**		0.60	0.11	mg/L			08/22/16 23:55	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:19	2
Arsenic	**8.0**		2.0	0.71	ug/L		08/26/16 21:49	08/30/16 20:56	2
Barium	**5.9**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:19	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 20:19	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 20:19	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:19	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:19	2
Copper	**3.8**	**J**	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:19	2
Manganese	**60.5**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 20:19	2
Nickel	**2.1**	**J**	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:19	2
Lead	**1.5**		1.2	0.44	ug/L		08/26/16 21:49	08/28/16 20:19	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 20:19	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 20:56	2
Vanadium	**1.6**	**J**	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 20:19	2
Zinc	**24.9**		16.0	6.5	ug/L		08/26/16 21:49	08/28/16 20:19	2
Aluminum	**168**		40.0	13.5	ug/L		08/26/16 21:49	08/28/16 20:19	2
Sodium	**57700**		200	87.6	ug/L		08/26/16 21:49	08/28/16 20:19	2
Magnesium	**793**		200	68.4	ug/L		08/26/16 21:49	08/28/16 20:19	2
Potassium	**76500**		200	74.8	ug/L		08/26/16 21:49	08/28/16 20:19	2
Calcium	**10100**		200	69.5	ug/L		08/26/16 21:49	08/28/16 20:19	2
Iron	**506**		120	49.1	ug/L		08/26/16 21:49	08/28/16 20:19	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 20:19	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 11:23	08/29/16 16:40	2
Arsenic	**7.9**		2.0	0.71	ug/L		08/29/16 11:23	08/29/16 16:40	2
Barium	**4.3**		4.0	1.5	ug/L		08/29/16 11:23	09/01/16 10:43	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 11:23	08/29/16 16:40	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 11:23	08/29/16 16:40	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 11:23	08/29/16 16:40	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 11:23	08/29/16 16:40	2
Copper	**4.5**		4.0	1.6	ug/L		08/29/16 11:23	08/29/16 16:40	2
Manganese	**5.4**	**J**	8.0	3.0	ug/L		08/29/16 11:23	08/29/16 16:40	2
Nickel	**1.7**	**J**	4.0	1.6	ug/L		08/29/16 11:23	08/29/16 16:40	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 11:23	08/29/16 16:40	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 11:23	08/29/16 16:40	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 11:23	08/29/16 16:40	2
Vanadium	**1.5**	**J**	4.0	1.4	ug/L		08/29/16 11:23	08/29/16 16:40	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 11:23	08/29/16 16:40	2
Aluminum	**48.3**		40.0	13.5	ug/L		08/29/16 11:23	08/29/16 16:40	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: RW-5-081816
Date Collected: 08/18/16 16:50
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-15
Matrix: Water

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	**55900**		200	87.6	ug/L		08/29/16 11:23	08/29/16 16:40	2
Magnesium	**408**		200	68.4	ug/L		08/29/16 11:23	08/29/16 16:40	2
Potassium	**81300**		200	74.8	ug/L		08/29/16 11:23	09/01/16 10:43	2
Calcium	**8450**		200	69.5	ug/L		08/29/16 11:23	08/29/16 16:40	2
Iron	**77.4**	**J**	120	49.1	ug/L		08/29/16 11:23	08/29/16 16:40	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 11:23	08/29/16 16:40	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 11:57	08/24/16 14:43	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:52	1
Bicarbonate Alkalinity as CaCO3	**22.1**		5.0	5.0	mg/L			09/01/16 12:00	1
Alkalinity	**227**		5.0	5.0	mg/L			09/01/16 12:00	1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)	DBFM (70-130)	TOL (70-130)
460-118898-1	TB-03-081816	92	106	106	92
460-118898-2	FB-02-081816	94	107	106	92
460-118898-3	OB-20A-081816	96	117	112	98
460-118898-4	OB-6-081816	94	110	106	93
460-118898-4 MS	OB-6-081816	91	112	105	91
460-118898-4 MSD	OB-6-081816	93	113	106	92
460-118898-5	OB-21-081816	95	109	108	92
460-118898-6	Dup-02-081816	103	119	119	103
460-118898-7	RW-6-081816	93	105	106	91
460-118898-8	RW-7-081816	92	104	107	91
460-118898-9	OB-5-081816	94	108	106	93
460-118898-10	OB-20B-081816	94	107	107	91
460-118898-11	RW-6A-081816	93	110	107	91
460-118898-12	RW-5A-081816	95	108	106	91
460-118898-13	OB-7-081816	94	107	104	90
460-118898-14	OB-25-081816	95	107	106	91
460-118898-15	RW-5-081816	95	105	108	91
LCS 460-386495/3	Lab Control Sample	94	109	105	93
MB 460-386495/7	Method Blank	92	108	104	91

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)
460-118898-1	TB-03-081816	101	99
460-118898-2	FB-02-081816	100	92
460-118898-3	OB-20A-081816	106	100
460-118898-4	OB-6-081816	108	92
460-118898-4 MS	OB-6-081816	104	93
460-118898-4 MSD	OB-6-081816	105	92
460-118898-5	OB-21-081816	106	101
460-118898-6	Dup-02-081816	105	91
460-118898-7	RW-6-081816	96	102
460-118898-8	RW-7-081816	106	90
460-118898-9	OB-5-081816	108	92
460-118898-10	OB-20B-081816	94	116
460-118898-11	RW-6A-081816	87	104
460-118898-12	RW-5A-081816	99	98
460-118898-13	OB-7-081816	104	91
460-118898-14	OB-25-081816	106	91
460-118898-15	RW-5-081816	106	93

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		12DCE	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
LCS 460-386497/4	Lab Control Sample	104	95
LCS 460-386835/3	Lab Control Sample	105	98
LCSD 460-386835/4	Lab Control Sample Dup	103	99
MB 460-386497/8	Method Blank	105	94
MB 460-386835/7	Method Blank	104	90

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPH	TBP	2FP	FBP
Lab Sample ID	Client Sample ID	(30-130)	(15-110)	(30-130)	(15-110)	(15-110)	(30-130)
460-118898-2	FB-02-081816	79	27	77	124 X	41	81
460-118898-3	OB-20A-081816	83	31	83	124 X	45	78
460-118898-4	OB-6-081816	85	28	88	120 X	42	78
460-118898-4 MS	OB-6-081816	84	29	87	131 X	48	81
460-118898-4 MSD	OB-6-081816	82	29	93	128 X	49	78
460-118898-5	OB-21-081816	80	29	82	120 X	42	79
460-118898-6	Dup-02-081816	78	16	78	78	23	75
460-118898-7	RW-6-081816	80	31	81	121 X	45	75
460-118898-8	RW-7-081816	80	28	74	109	43	75
460-118898-9	OB-5-081816	79	32	88	119 X	45	75
460-118898-10	OB-20B-081816	80	32	89	121 X	45	77
460-118898-11	RW-6A-081816	79	30	80	122 X	42	71
460-118898-12	RW-5A-081816	88	31	86	120 X	45	74
460-118898-13	OB-7-081816	89	33	87	125 X	49	77
460-118898-14	OB-25-081816	85	30	80	122 X	45	78
460-118898-15	RW-5-081816	80	28	81	115 X	39	79
LCS 460-386330/2-A	Lab Control Sample	92	34	90	143 X	52	85
LCS 460-386330/3-A	Lab Control Sample	88	28	80	126 X	44	79
MB 460-386330/1-A	Method Blank	96	24	101	92	50	75

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

PHL = Phenol-d5 (Surr)

TPH = Terphenyl-d14 (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

2FP = 2-Fluorophenol (Surr)

FBP = 2-Fluorobiphenyl

Surrogate Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX2	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)
460-118898-2	FB-02-081816	76	94
460-118898-3	OB-20A-081816	60	93
460-118898-4	OB-6-081816	60	109
460-118898-4 MS	OB-6-081816	63	104
460-118898-4 MSD	OB-6-081816	74	114
460-118898-5	OB-21-081816	69	92
460-118898-7	RW-6-081816	80	93
460-118898-8	RW-7-081816	92	86
460-118898-9	OB-5-081816	88	97
460-118898-10	OB-20B-081816	87	92
460-118898-11	RW-6A-081816	92	98
460-118898-12	RW-5A-081816	95	102
460-118898-13	OB-7-081816	96	104
460-118898-14	OB-25-081816	86	86
460-118898-15	RW-5-081816	76	135
460-118951-J-4-B MS	Matrix Spike	87	125
460-118951-L-4-A MSD	Matrix Spike Duplicate	93	125
LCS 460-386385/2-A	Lab Control Sample	73	112
LCS 460-386469/2-A	Lab Control Sample	92	93
LCS 460-386623/2-A	Lab Control Sample	93	121
LCSD 460-386469/3-A	Lab Control Sample Dup	81	84
MB 460-386385/1-A	Method Blank	82	136
MB 460-386469/1-A	Method Blank	93	102
MB 460-386623/1-A	Method Blank	94	139

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)
460-118898-6	Dup-02-081816	121	90

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-386495/7
Matrix: Water
Analysis Batch: 386495

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 12:51	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 12:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 12:51	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 12:51	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 12:51	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 12:51	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 12:51	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 12:51	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 12:51	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 12:51	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 12:51	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 12:51	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 12:51	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 12:51	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 12:51	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 12:51	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 12:51	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 12:51	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 12:51	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 12:51	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 12:51	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 12:51	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 12:51	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 12:51	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 12:51	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 12:51	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 12:51	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 12:51	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 12:51	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 12:51	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 12:51	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 12:51	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 12:51	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 12:51	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 12:51	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 12:51	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 12:51	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 12:51	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 12:51	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 12:51	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 12:51	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 12:51	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 12:51	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 12:51	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 12:51	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 12:51	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 12:51	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 12:51	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/24/16 12:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		08/24/16 12:51	1
4-Bromofluorobenzene	108		70 - 130		08/24/16 12:51	1
Dibromofluoromethane (Surr)	104		70 - 130		08/24/16 12:51	1
Toluene-d8 (Surr)	91		70 - 130		08/24/16 12:51	1

Lab Sample ID: LCS 460-386495/3
Matrix: Water
Analysis Batch: 386495

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	21.7		ug/L		108	70 - 130
1,1,2,2-Tetrachloroethane	20.0	17.3		ug/L		87	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	20.0		ug/L		100	70 - 130
1,1,2-Trichloroethane	20.0	18.3		ug/L		92	70 - 130
1,1-Dichloroethane	20.0	20.6		ug/L		103	70 - 130
1,1-Dichloroethene	20.0	22.1		ug/L		110	70 - 130
1,2,3-Trichlorobenzene	20.0	20.0		ug/L		100	70 - 130
1,2,4-Trichlorobenzene	20.0	20.1		ug/L		101	70 - 130
1,2-Dichlorobenzene	20.0	19.5		ug/L		98	70 - 130
1,2-Dichloroethane	20.0	19.8		ug/L		99	70 - 130
1,2-Dichloropropane	20.0	19.6		ug/L		98	70 - 130
1,3-Dichlorobenzene	20.0	18.8		ug/L		94	70 - 130
1,4-Dichlorobenzene	20.0	19.2		ug/L		96	70 - 130
2-Butanone (MEK)	100	105		ug/L		105	40 - 160
2-Hexanone	100	93.9		ug/L		94	40 - 160
4-Methyl-2-pentanone (MIBK)	100	100		ug/L		100	40 - 160
Acetone	100	96.5		ug/L		96	40 - 160
Benzene	20.0	19.1		ug/L		95	70 - 130
Bromoform	20.0	17.5		ug/L		87	70 - 130
Bromomethane	20.0	21.4		ug/L		107	40 - 160
Carbon disulfide	20.0	20.8		ug/L		104	40 - 160
Carbon tetrachloride	20.0	22.4		ug/L		112	70 - 130
Chlorobenzene	20.0	19.0		ug/L		95	70 - 130
Chlorobromomethane	20.0	21.8		ug/L		109	70 - 130
Chlorodibromomethane	20.0	18.7		ug/L		93	70 - 130
Chloroethane	20.0	21.8		ug/L		109	40 - 160
Chloroform	20.0	21.4		ug/L		107	70 - 130
Chloromethane	20.0	16.4		ug/L		82	40 - 160
cis-1,2-Dichloroethene	20.0	21.0		ug/L		105	70 - 130
cis-1,3-Dichloropropene	20.0	17.4		ug/L		87	70 - 130
Cyclohexane	20.0	20.5		ug/L		103	70 - 130
Dichlorobromomethane	20.0	20.5		ug/L		102	70 - 130
Dichlorodifluoromethane	20.0	17.1		ug/L		86	40 - 160
Ethylbenzene	20.0	18.9		ug/L		95	70 - 130
Isopropylbenzene	20.0	18.6		ug/L		93	70 - 130
Methyl acetate	100	108		ug/L		108	70 - 130
Methyl tert-butyl ether	20.0	19.6		ug/L		98	70 - 130
Methylcyclohexane	20.0	18.1		ug/L		90	70 - 130
Methylene Chloride	20.0	21.4		ug/L		107	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-386495/3
Matrix: Water
Analysis Batch: 386495

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Styrene	20.0	17.5		ug/L		88	70 - 130
Tetrachloroethene	20.0	20.9		ug/L		105	70 - 130
Toluene	20.0	18.6		ug/L		93	70 - 130
trans-1,2-Dichloroethene	20.0	22.3		ug/L		111	70 - 130
trans-1,3-Dichloropropene	20.0	17.0		ug/L		85	70 - 130
Trichloroethene	20.0	20.5		ug/L		102	70 - 130
Trichlorofluoromethane	20.0	22.8		ug/L		114	40 - 160
Vinyl chloride	20.0	18.0		ug/L		90	70 - 130
Xylenes, Total	40.0	35.9		ug/L		90	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*
4-Bromofluorobenzene	*109*		*70 - 130*
Dibromofluoromethane (Surr)	*105*		*70 - 130*
Toluene-d8 (Surr)	*93*		*70 - 130*

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 386495

Client Sample ID: OB-6-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.28	U	20.0	23.7		ug/L		119	70 - 130
1,1,2,2-Tetrachloroethane	0.19	U	20.0	17.3		ug/L		87	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	20.0	23.5		ug/L		117	70 - 130
1,1,2-Trichloroethane	0.080	U	20.0	18.9		ug/L		95	70 - 130
1,1-Dichloroethane	0.24	U	20.0	22.2		ug/L		111	70 - 130
1,1-Dichloroethene	0.34	U	20.0	25.2		ug/L		126	70 - 130
1,2,3-Trichlorobenzene	0.35	U	20.0	20.4		ug/L		102	70 - 130
1,2,4-Trichlorobenzene	0.27	U	20.0	20.4		ug/L		102	70 - 130
1,2-Dichlorobenzene	0.22	U	20.0	20.1		ug/L		101	70 - 130
1,2-Dichloroethane	0.25	U	20.0	21.3		ug/L		107	70 - 130
1,2-Dichloropropane	0.18	U	20.0	21.2		ug/L		106	70 - 130
1,3-Dichlorobenzene	0.33	U	20.0	20.1		ug/L		100	70 - 130
1,4-Dichlorobenzene	0.33	U	20.0	20.2		ug/L		101	70 - 130
2-Butanone (MEK)	2.2	U	100	111		ug/L		111	40 - 160
2-Hexanone	0.72	U	100	96.8		ug/L		97	40 - 160
4-Methyl-2-pentanone (MIBK)	0.63	U	100	106		ug/L		106	40 - 160
Acetone	1.1	U	100	98.8		ug/L		99	40 - 160
Benzene	0.090	U	20.0	20.1		ug/L		101	70 - 130
Bromoform	0.18	U	20.0	18.3		ug/L		92	70 - 130
Bromomethane	0.18	U	20.0	23.1		ug/L		116	40 - 160
Carbon disulfide	0.22	U	20.0	23.3		ug/L		117	40 - 160
Carbon tetrachloride	0.33	U	20.0	24.9		ug/L		125	70 - 130
Chlorobenzene	0.24	U	20.0	20.6		ug/L		103	70 - 130
Chlorobromomethane	0.30	U	20.0	23.0		ug/L		115	70 - 130
Chlorodibromomethane	0.22	U	20.0	19.9		ug/L		100	70 - 130
Chloroethane	0.37	U	20.0	31.6		ug/L		158	40 - 160

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 386495

Client Sample ID: OB-6-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	0.22	U	20.0	22.8		ug/L		114	70 - 130
Chloromethane	0.22	U	20.0	19.1		ug/L		95	40 - 160
cis-1,2-Dichloroethene	0.26	U	20.0	22.9		ug/L		114	70 - 130
cis-1,3-Dichloropropene	0.16	U	20.0	17.5		ug/L		88	70 - 130
Cyclohexane	0.26	U	20.0	24.0		ug/L		120	70 - 130
Dichlorobromomethane	0.15	U	20.0	22.1		ug/L		111	70 - 130
Dichlorodifluoromethane	0.14	U	20.0	23.1		ug/L		115	40 - 160
Ethylbenzene	0.30	U	20.0	20.8		ug/L		104	70 - 130
Isopropylbenzene	0.32	U	20.0	20.4		ug/L		102	70 - 130
Methyl acetate	0.58	U	100	112		ug/L		112	70 - 130
Methyl tert-butyl ether	0.13	U	20.0	20.3		ug/L		102	70 - 130
Methylcyclohexane	0.22	U	20.0	21.3		ug/L		107	70 - 130
Methylene Chloride	0.21	U	20.0	23.1		ug/L		116	70 - 130
Styrene	0.17	U	20.0	18.8		ug/L		94	70 - 130
Tetrachloroethene	0.12	U	20.0	23.4		ug/L		117	70 - 130
Toluene	0.25	U	20.0	20.0		ug/L		100	70 - 130
trans-1,2-Dichloroethene	0.18	U	20.0	23.7		ug/L		118	70 - 130
trans-1,3-Dichloropropene	0.19	U	20.0	17.8		ug/L		89	70 - 130
Trichloroethene	0.22	U	20.0	22.8		ug/L		114	70 - 130
Trichlorofluoromethane	0.15	U	20.0	31.4		ug/L		157	40 - 160
Vinyl chloride	0.060	U	20.0	21.6		ug/L		108	70 - 130
Xylenes, Total	0.28	U	40.0	38.6		ug/L		97	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*
4-Bromofluorobenzene	*112*		*70 - 130*
Dibromofluoromethane (Surr)	*105*		*70 - 130*
Toluene-d8 (Surr)	*91*		*70 - 130*

Lab Sample ID: 460-118898-4 MSD
Matrix: Water
Analysis Batch: 386495

Client Sample ID: OB-6-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.28	U	20.0	20.4		ug/L		102	70 - 130	15	20
1,1,2,2-Tetrachloroethane	0.19	U	20.0	15.5		ug/L		78	70 - 130	11	20
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	20.0	20.7		ug/L		103	70 - 130	13	20
1,1,2-Trichloroethane	0.080	U	20.0	16.5		ug/L		82	70 - 130	14	20
1,1-Dichloroethane	0.24	U	20.0	18.6		ug/L		93	70 - 130	18	20
1,1-Dichloroethene	0.34	U	20.0	20.7		ug/L		103	70 - 130	20	20
1,2,3-Trichlorobenzene	0.35	U	20.0	18.1		ug/L		90	70 - 130	12	20
1,2,4-Trichlorobenzene	0.27	U	20.0	18.0		ug/L		90	70 - 130	12	20
1,2-Dichlorobenzene	0.22	U	20.0	17.5		ug/L		87	70 - 130	14	20
1,2-Dichloroethane	0.25	U	20.0	18.1		ug/L		90	70 - 130	16	20
1,2-Dichloropropane	0.18	U	20.0	17.7		ug/L		88	70 - 130	18	20
1,3-Dichlorobenzene	0.33	U	20.0	17.3		ug/L		87	70 - 130	14	20
1,4-Dichlorobenzene	0.33	U	20.0	17.6		ug/L		88	70 - 130	14	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-118898-4 MSD
Matrix: Water
Analysis Batch: 386495

Client Sample ID: OB-6-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	2.2	U	100	93.1		ug/L		93	40 - 160	18	20
2-Hexanone	0.72	U	100	83.3		ug/L		83	40 - 160	15	20
4-Methyl-2-pentanone (MIBK)	0.63	U	100	89.4		ug/L		89	40 - 160	17	20
Acetone	1.1	U	100	88.5		ug/L		89	40 - 160	11	20
Benzene	0.090	U	20.0	17.1		ug/L		86	70 - 130	16	20
Bromoform	0.18	U	20.0	15.8		ug/L		79	70 - 130	15	20
Bromomethane	0.18	U	20.0	23.1		ug/L		115	40 - 160	0	20
Carbon disulfide	0.22	U	20.0	20.3		ug/L		101	40 - 160	14	20
Carbon tetrachloride	0.33	U	20.0	21.3		ug/L		107	70 - 130	15	20
Chlorobenzene	0.24	U	20.0	17.9		ug/L		89	70 - 130	14	20
Chlorobromomethane	0.30	U	20.0	19.9		ug/L		100	70 - 130	14	20
Chlorodibromomethane	0.22	U	20.0	17.3		ug/L		86	70 - 130	14	20
Chloroethane	0.37	U	20.0	31.3		ug/L		157	40 - 160	1	20
Chloroform	0.22	U	20.0	19.4		ug/L		97	70 - 130	16	20
Chloromethane	0.22	U	20.0	17.5		ug/L		87	40 - 160	9	20
cis-1,2-Dichloroethene	0.26	U	20.0	19.8		ug/L		99	70 - 130	14	20
cis-1,3-Dichloropropene	0.16	U	20.0	15.1		ug/L		76	70 - 130	14	20
Cyclohexane	0.26	U	20.0	20.8		ug/L		104	70 - 130	15	20
Dichlorobromomethane	0.15	U	20.0	19.2		ug/L		96	70 - 130	14	20
Dichlorodifluoromethane	0.14	U	20.0	21.4		ug/L		107	40 - 160	8	20
Ethylbenzene	0.30	U	20.0	17.6		ug/L		88	70 - 130	17	20
Isopropylbenzene	0.32	U	20.0	17.4		ug/L		87	70 - 130	16	20
Methyl acetate	0.58	U	100	93.6		ug/L		94	70 - 130	17	20
Methyl tert-butyl ether	0.13	U	20.0	17.6		ug/L		88	70 - 130	14	20
Methylcyclohexane	0.22	U	20.0	18.1		ug/L		91	70 - 130	16	20
Methylene Chloride	0.21	U	20.0	19.9		ug/L		100	70 - 130	15	20
Styrene	0.17	U	20.0	16.1		ug/L		80	70 - 130	16	20
Tetrachloroethene	0.12	U	20.0	19.8		ug/L		99	70 - 130	17	20
Toluene	0.25	U	20.0	17.1		ug/L		86	70 - 130	15	20
trans-1,2-Dichloroethene	0.18	U	20.0	20.4		ug/L		102	70 - 130	15	20
trans-1,3-Dichloropropene	0.19	U	20.0	15.3		ug/L		76	70 - 130	15	20
Trichloroethene	0.22	U	20.0	19.7		ug/L		99	70 - 130	15	20
Trichlorofluoromethane	0.15	U	20.0	28.7		ug/L		143	40 - 160	9	20
Vinyl chloride	0.060	U	20.0	20.2		ug/L		101	70 - 130	6	20
Xylenes, Total	0.28	U	40.0	33.9		ug/L		85	70 - 130	13	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene	*113*		*70 - 130*
Dibromofluoromethane (Surr)	*106*		*70 - 130*
Toluene-d8 (Surr)	*92*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-386497/8
Matrix: Water
Analysis Batch: 386497

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/24/16 13:09	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/24/16 13:09	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/24/16 13:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*08/24/16 13:09*	*1*
4-Bromofluorobenzene	*94*		*70 - 130*		*08/24/16 13:09*	*1*

Lab Sample ID: LCS 460-386497/4
Matrix: Water
Analysis Batch: 386497

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.500	0.337		ug/L		67	40 - 160
Ethylene Dibromide	0.500	0.504		ug/L		101	70 - 130
1,2,3-Trichloropropane	0.500	0.427		ug/L		85	40 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*
4-Bromofluorobenzene	*95*		*70 - 130*

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 386497

Client Sample ID: OB-6-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.0070	U	0.500	0.295		ug/L		59	40 - 160
Ethylene Dibromide	0.0060	U	0.500	0.475		ug/L		95	70 - 130
1,2,3-Trichloropropane	0.011	U	0.500	0.412		ug/L		82	40 - 160

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*
4-Bromofluorobenzene	*93*		*70 - 130*

Lab Sample ID: 460-118898-4 MSD
Matrix: Water
Analysis Batch: 386497

Client Sample ID: OB-6-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.0070	U	0.500	0.350		ug/L		70	40 - 160	17	20
Ethylene Dibromide	0.0060	U	0.500	0.449		ug/L		90	70 - 130	6	20
1,2,3-Trichloropropane	0.011	U	0.500	0.423		ug/L		85	40 - 160	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene	*92*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-386835/7
Matrix: Water
Analysis Batch: 386835

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 21:57	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 21:57	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 21:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/25/16 21:57*	*1*
4-Bromofluorobenzene	*90*		*70 - 130*		*08/25/16 21:57*	*1*

Lab Sample ID: LCS 460-386835/3
Matrix: Water
Analysis Batch: 386835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dibromo-3-Chloropropane			0.500	0.294		ug/L		59	40 - 160		
Ethylene Dibromide			0.500	0.501		ug/L		100	70 - 130		
1,2,3-Trichloropropane			0.500	0.425		ug/L		85	40 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene	*98*		*70 - 130*

Lab Sample ID: LCSD 460-386835/4
Matrix: Water
Analysis Batch: 386835

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.500	0.299		ug/L		60	40 - 160	2	20
Ethylene Dibromide			0.500	0.525		ug/L		105	70 - 130	5	20
1,2,3-Trichloropropane			0.500	0.427		ug/L		85	40 - 160	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*
4-Bromofluorobenzene	*99*		*70 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-386330/1-A
Matrix: Water
Analysis Batch: 387329

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386330

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/23/16 14:12	08/29/16 09:50	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/23/16 14:12	08/29/16 09:50	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/23/16 14:12	08/29/16 09:50	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/23/16 14:12	08/29/16 09:50	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/23/16 14:12	08/29/16 09:50	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/23/16 14:12	08/29/16 09:50	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-386330/1-A
Matrix: Water
Analysis Batch: 387329

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386330

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/23/16 14:12	08/29/16 09:50	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/23/16 14:12	08/29/16 09:50	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		08/23/16 14:12	08/29/16 09:50	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/23/16 14:12	08/29/16 09:50	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/23/16 14:12	08/29/16 09:50	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/23/16 14:12	08/29/16 09:50	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/23/16 14:12	08/29/16 09:50	1
Pentachlorophenol	2.2	U	20	2.2	ug/L		08/23/16 14:12	08/29/16 09:50	1
Bis(2-chloroethyl)ether	0.12	U	1.0	0.12	ug/L		08/23/16 14:12	08/29/16 09:50	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/23/16 14:12	08/29/16 09:50	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/23/16 14:12	08/29/16 09:50	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/23/16 14:12	08/29/16 09:50	1
Isophorone	0.67	U	10	0.67	ug/L		08/23/16 14:12	08/29/16 09:50	1
Naphthalene	0.80	U	10	0.80	ug/L		08/23/16 14:12	08/29/16 09:50	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/23/16 14:12	08/29/16 09:50	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/23/16 14:12	08/29/16 09:50	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/23/16 14:12	08/29/16 09:50	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/23/16 14:12	08/29/16 09:50	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/23/16 14:12	08/29/16 09:50	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/23/16 14:12	08/29/16 09:50	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/23/16 14:12	08/29/16 09:50	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/23/16 14:12	08/29/16 09:50	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/23/16 14:12	08/29/16 09:50	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/23/16 14:12	08/29/16 09:50	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/23/16 14:12	08/29/16 09:50	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/29/16 09:50	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/23/16 14:12	08/29/16 09:50	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/29/16 09:50	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/23/16 14:12	08/29/16 09:50	1
Fluorene	0.80	U	10	0.80	ug/L		08/23/16 14:12	08/29/16 09:50	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/23/16 14:12	08/29/16 09:50	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/23/16 14:12	08/29/16 09:50	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/29/16 09:50	1
Hexachlorobenzene	0.47	U	1.0	0.47	ug/L		08/23/16 14:12	08/29/16 09:50	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/23/16 14:12	08/29/16 09:50	1
Anthracene	0.57	U	10	0.57	ug/L		08/23/16 14:12	08/29/16 09:50	1
Carbazole	0.85	U	10	0.85	ug/L		08/23/16 14:12	08/29/16 09:50	1
Di-n-butyl phthalate	0.82	U	10	0.82	ug/L		08/23/16 14:12	08/29/16 09:50	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/23/16 14:12	08/29/16 09:50	1
Pyrene	0.83	U	10	0.83	ug/L		08/23/16 14:12	08/29/16 09:50	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/23/16 14:12	08/29/16 09:50	1
Benzo[a]anthracene	0.55	U	1.0	0.55	ug/L		08/23/16 14:12	08/29/16 09:50	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/23/16 14:12	08/29/16 09:50	1
Bis(2-ethylhexyl) phthalate	0.72	U	2.0	0.72	ug/L		08/23/16 14:12	08/29/16 09:50	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/23/16 14:12	08/29/16 09:50	1
Benzo[b]fluoranthene	0.44	U	1.0	0.44	ug/L		08/23/16 14:12	08/29/16 09:50	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/23/16 14:12	08/29/16 09:50	1
Benzo[a]pyrene	0.16	U	1.0	0.16	ug/L		08/23/16 14:12	08/29/16 09:50	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-386330/1-A
Matrix: Water
Analysis Batch: 387329

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386330

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	0.21	U	1.0	0.21	ug/L		08/23/16 14:12	08/29/16 09:50	1
Dibenz(a,h)anthracene	0.090	U	1.0	0.090	ug/L		08/23/16 14:12	08/29/16 09:50	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/23/16 14:12	08/29/16 09:50	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/23/16 14:12	08/29/16 09:50	1
Acetophenone	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/29/16 09:50	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/23/16 14:12	08/29/16 09:50	1
Caprolactam	1.1	U	10	1.1	ug/L		08/23/16 14:12	08/29/16 09:50	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/23/16 14:12	08/29/16 09:50	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/23/16 14:12	08/29/16 09:50	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/23/16 14:12	08/29/16 09:50	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/23/16 14:12	08/29/16 09:50	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/23/16 14:12	08/29/16 09:50	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/23/16 14:12	08/29/16 09:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*96*		*30 - 130*	*08/23/16 14:12*	*08/29/16 09:50*	*1*
Phenol-d5 (Surr)	*24*		*15 - 110*	*08/23/16 14:12*	*08/29/16 09:50*	*1*
Terphenyl-d14 (Surr)	*101*		*30 - 130*	*08/23/16 14:12*	*08/29/16 09:50*	*1*
2,4,6-Tribromophenol (Surr)	*92*		*15 - 110*	*08/23/16 14:12*	*08/29/16 09:50*	*1*
2-Fluorophenol (Surr)	*50*		*15 - 110*	*08/23/16 14:12*	*08/29/16 09:50*	*1*
2-Fluorobiphenyl	*75*		*30 - 130*	*08/23/16 14:12*	*08/29/16 09:50*	*1*

Lab Sample ID: LCS 460-386330/2-A
Matrix: Water
Analysis Batch: 387265

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386330

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	80.0	30.4		ug/L		38	20 - 160
2-Chlorophenol	80.0	65.6		ug/L		82	70 - 130
2-Methylphenol	80.0	49.2	*	ug/L		61	70 - 130
4-Methylphenol	80.0	47.4		ug/L		59	20 - 160
2-Nitrophenol	80.0	81.7		ug/L		102	70 - 130
2,4-Dimethylphenol	80.0	74.5		ug/L		93	70 - 130
2,4-Dichlorophenol	80.0	72.9		ug/L		91	70 - 130
4-Chloro-3-methylphenol	80.0	83.9		ug/L		105	20 - 160
2,4,6-Trichlorophenol	80.0	83.8		ug/L		105	70 - 130
2,4,5-Trichlorophenol	80.0	86.2		ug/L		108	20 - 160
2,4-Dinitrotoluene	80.0	88.6		ug/L		111	70 - 130
4-Nitrophenol	160	72.3		ug/L		45	20 - 160
4,6-Dinitro-2-methylphenol	160	177		ug/L		111	20 - 160
Pentachlorophenol	160	187		ug/L		117	20 - 160
Bis(2-chloroethyl)ether	80.0	64.8		ug/L		81	70 - 130
N-Nitrosodi-n-propylamine	80.0	67.0		ug/L		84	70 - 130
Hexachloroethane	80.0	59.3		ug/L		74	20 - 160
Nitrobenzene	80.0	66.5		ug/L		83	70 - 130
Isophorone	80.0	67.0		ug/L		84	70 - 130
Naphthalene	80.0	73.3		ug/L		92	70 - 130
4-Chloroaniline	80.0	63.1		ug/L		79	20 - 160

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-386330/2-A
Matrix: Water
Analysis Batch: 387265

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386330

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorobutadiene	80.0	69.4		ug/L		87	70 - 130
2-Methylnaphthalene	80.0	72.5		ug/L		91	70 - 130
Hexachlorocyclopentadiene	80.0	64.2		ug/L		80	20 - 160
2-Chloronaphthalene	80.0	69.6		ug/L		87	70 - 130
2-Nitroaniline	80.0	77.0		ug/L		96	20 - 160
Dimethyl phthalate	80.0	82.3		ug/L		103	70 - 130
Acenaphthylene	80.0	73.4		ug/L		92	70 - 130
2,6-Dinitrotoluene	80.0	87.4		ug/L		109	70 - 130
3-Nitroaniline	80.0	84.4		ug/L		105	20 - 160
Acenaphthene	80.0	69.7		ug/L		87	70 - 130
Dibenzofuran	80.0	74.8		ug/L		93	70 - 130
2,4-Dinitrophenol	160	178		ug/L		111	20 - 160
Diethyl phthalate	80.0	80.4		ug/L		101	70 - 130
4-Chlorophenyl phenyl ether	80.0	86.0		ug/L		108	70 - 130
Fluorene	80.0	79.0		ug/L		99	70 - 130
4-Nitroaniline	80.0	90.2		ug/L		113	20 - 160
N-Nitrosodiphenylamine	80.0	74.0		ug/L		92	70 - 130
4-Bromophenyl phenyl ether	80.0	81.8		ug/L		102	70 - 130
Hexachlorobenzene	80.0	77.1		ug/L		96	70 - 130
Phenanthrene	80.0	79.1		ug/L		99	70 - 130
Anthracene	80.0	76.9		ug/L		96	70 - 130
Carbazole	80.0	78.9		ug/L		99	70 - 130
Di-n-butyl phthalate	80.0	75.8		ug/L		95	70 - 130
Fluoranthene	80.0	86.1		ug/L		108	70 - 130
Pyrene	80.0	80.2		ug/L		100	70 - 130
Butyl benzyl phthalate	80.0	78.6		ug/L		98	70 - 130
Benzo[a]anthracene	80.0	77.3		ug/L		97	70 - 130
Chrysene	80.0	86.7		ug/L		108	70 - 130
Bis(2-ethylhexyl) phthalate	80.0	80.6		ug/L		101	70 - 130
Di-n-octyl phthalate	80.0	76.1		ug/L		95	70 - 130
Benzo[b]fluoranthene	80.0	77.2		ug/L		97	70 - 130
Benzo[k]fluoranthene	80.0	89.7		ug/L		112	70 - 130
Benzo[a]pyrene	80.0	84.5		ug/L		106	70 - 130
Indeno[1,2,3-cd]pyrene	80.0	90.2		ug/L		113	70 - 130
Dibenz(a,h)anthracene	80.0	92.6		ug/L		116	70 - 130
Benzo[g,h,i]perylene	80.0	86.3		ug/L		108	70 - 130
1,1'-Biphenyl	80.0	78.1		ug/L		98	70 - 130
Acetophenone	80.0	88.3		ug/L		110	70 - 130
2,2'-oxybis[1-chloropropane]	80.0	66.9		ug/L		84	70 - 130
1,2,4,5-Tetrachlorobenzene	80.0	73.9		ug/L		92	70 - 130
2,3,4,6-Tetrachlorophenol	80.0	95.7		ug/L		120	70 - 130
3,3'-Dichlorobenzidine	80.0	82.2		ug/L		103	70 - 130
Bis(2-chloroethoxy)methane	80.0	71.2		ug/L		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*92*		*30 - 130*
Phenol-d5 (Surr)	*34*		*15 - 110*
Terphenyl-d14 (Surr)	*90*		*30 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-386330/2-A
Matrix: Water
Analysis Batch: 387265

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386330

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*143*	*X*	*15 - 110*
2-Fluorophenol (Surr)	*52*		*15 - 110*
2-Fluorobiphenyl	*85*		*30 - 130*

Lab Sample ID: LCS 460-386330/3-A
Matrix: Water
Analysis Batch: 387265

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386330

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzaldehyde	160	132		ug/L		83	20 - 160
Caprolactam	160	42.1		ug/L		26	20 - 160
Atrazine	160	165		ug/L		103	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*88*		*30 - 130*
Phenol-d5 (Surr)	*28*		*15 - 110*
Terphenyl-d14 (Surr)	*80*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*126*	*X*	*15 - 110*
2-Fluorophenol (Surr)	*44*		*15 - 110*
2-Fluorobiphenyl	*79*		*30 - 130*

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 387265

Client Sample ID: OB-6-081816
Prep Type: Total/NA
Prep Batch: 386330

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.43	U	83.3	28.5		ug/L		34	20 - 160
2-Chlorophenol	0.77	U	83.3	63.5		ug/L		76	70 - 130
2-Methylphenol	1.3	U F1 *	83.3	47.6	F1	ug/L		57	70 - 130
4-Methylphenol	0.91	U	83.3	44.3		ug/L		53	20 - 160
2-Nitrophenol	0.61	U	83.3	78.8		ug/L		95	70 - 130
2,4-Dimethylphenol	0.95	U	83.3	76.5		ug/L		92	70 - 130
2,4-Dichlorophenol	0.66	U	83.3	70.6		ug/L		85	70 - 130
4-Chloro-3-methylphenol	0.79	U	83.3	79.2		ug/L		95	20 - 160
2,4,6-Trichlorophenol	0.55	U	83.3	79.2		ug/L		95	20 - 160
2,4,5-Trichlorophenol	0.51	U	83.3	82.3		ug/L		99	20 - 160
2,4-Dinitrotoluene	1.1	U	83.3	92.9		ug/L		111	70 - 130
4-Nitrophenol	4.8	U	167	66.3		ug/L		40	20 - 160
4,6-Dinitro-2-methylphenol	2.1	U	167	165		ug/L		99	20 - 160
N-Nitrosodi-n-propylamine	0.86	U	83.3	68.2		ug/L		82	70 - 130
Hexachloroethane	0.094	U	83.3	60.2		ug/L		72	20 - 160
Nitrobenzene	0.51	U	83.3	59.0		ug/L		71	70 - 130
Isophorone	0.70	U	83.3	63.8		ug/L		77	70 - 130
Naphthalene	0.83	U	83.3	70.8		ug/L		85	70 - 130
4-Chloroaniline	0.76	U	83.3	60.2		ug/L		72	20 - 160
Hexachlorobutadiene	0.79	U	83.3	68.6		ug/L		82	70 - 130
2-Methylnaphthalene	0.92	U	83.3	71.5		ug/L		86	70 - 130
Hexachlorocyclopentadiene	0.64	U	83.3	66.4		ug/L		80	20 - 160

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 387265

Client Sample ID: OB-6-081816
Prep Type: Total/NA
Prep Batch: 386330

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloronaphthalene	0.64	U	83.3	69.8		ug/L		84	70 - 130
2-Nitroaniline	0.68	U	83.3	72.8		ug/L		87	20 - 160
Dimethyl phthalate	1.0	U	83.3	86.4		ug/L		104	70 - 130
Acenaphthylene	0.68	U	83.3	75.1		ug/L		90	70 - 130
2,6-Dinitrotoluene	0.92	U	83.3	83.9		ug/L		101	70 - 130
3-Nitroaniline	0.85	U	83.3	71.1		ug/L		85	20 - 160
Acenaphthene	0.92	U	83.3	70.4		ug/L		85	70 - 130
Dibenzofuran	0.89	U	83.3	79.2		ug/L		95	70 - 130
2,4-Dinitrophenol	2.5	U	167	155		ug/L		93	20 - 160
Diethyl phthalate	1.0	U	83.3	79.0		ug/L		95	70 - 130
4-Chlorophenyl phenyl ether	1.0	U	83.3	90.3		ug/L		108	70 - 130
Fluorene	0.83	U	83.3	80.9		ug/L		97	70 - 130
4-Nitroaniline	0.50	U	83.3	79.8		ug/L		96	20 - 160
N-Nitrosodiphenylamine	0.77	U	83.3	71.0		ug/L		85	70 - 130
4-Bromophenyl phenyl ether	1.1	U	83.3	80.3		ug/L		96	70 - 130
Phenanthrene	0.68	U	83.3	75.2		ug/L		90	70 - 130
Anthracene	0.59	U	83.3	74.0		ug/L		89	70 - 130
Carbazole	0.89	U	83.3	74.0		ug/L		89	70 - 130
Di-n-butyl phthalate	0.85	U	83.3	77.9		ug/L		93	70 - 130
Fluoranthene	0.75	U	83.3	84.1		ug/L		101	70 - 130
Pyrene	0.86	U	83.3	80.2		ug/L		96	70 - 130
Butyl benzyl phthalate	0.63	U	83.3	80.2		ug/L		96	70 - 130
Chrysene	0.70	U	83.3	77.5		ug/L		93	70 - 130
Bis(2-ethylhexyl) phthalate	0.75	U	83.3	76.6		ug/L		92	70 - 130
Di-n-octyl phthalate	0.72	U	83.3	69.7		ug/L		84	70 - 130
Benzo[k]fluoranthene	0.19	U	83.3	68.1		ug/L		82	70 - 130
Benzo[g,h,i]perylene	0.78	U	83.3	78.6		ug/L		94	70 - 130
1,1'-Biphenyl	0.66	U	83.3	78.0		ug/L		94	70 - 130
Acetophenone	1.1	U	83.3	85.5		ug/L		103	70 - 130
Benzaldehyde	0.90	U	167	137		ug/L		82	20 - 160
Caprolactam	1.1	U	167	39.6		ug/L		24	20 - 160
Atrazine	0.80	U	167	146		ug/L		88	70 - 130
2,2'-oxybis[1-chloropropane]	0.97	U	83.3	64.1		ug/L		77	70 - 130
1,2,4,5-Tetrachlorobenzene	0.45	U	83.3	75.0		ug/L		90	70 - 130
2,3,4,6-Tetrachlorophenol	0.72	U	83.3	98.1		ug/L		118	70 - 130
3,3'-Dichlorobenzidine	1.1	U	83.3	71.4		ug/L		86	70 - 130
Bis(2-chloroethoxy)methane	0.72	U	83.3	69.9		ug/L		84	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*84*		*30 - 130*
Phenol-d5 (Surr)	*29*		*15 - 110*
Terphenyl-d14 (Surr)	*87*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*131*	*X*	*15 - 110*
2-Fluorophenol (Surr)	*48*		*15 - 110*
2-Fluorobiphenyl	*81*		*30 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-118898-4 MSD
Matrix: Water
Analysis Batch: 387265

Client Sample ID: OB-6-081816
Prep Type: Total/NA
Prep Batch: 386330

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.43	U	83.3	29.1		ug/L		35	20 - 160	2	20
2-Chlorophenol	0.77	U	83.3	67.1		ug/L		80	70 - 130	5	20
2-Methylphenol	1.3	U F1 *	83.3	48.7	F1	ug/L		58	70 - 130	2	20
4-Methylphenol	0.91	U	83.3	51.6		ug/L		62	20 - 160	15	20
2-Nitrophenol	0.61	U	83.3	72.0		ug/L		86	70 - 130	9	20
2,4-Dimethylphenol	0.95	U	83.3	70.3		ug/L		84	70 - 130	8	20
2,4-Dichlorophenol	0.66	U	83.3	66.2		ug/L		79	70 - 130	7	20
4-Chloro-3-methylphenol	0.79	U	83.3	74.1		ug/L		89	20 - 160	7	20
2,4,6-Trichlorophenol	0.55	U	83.3	83.7		ug/L		100	20 - 160	6	20
2,4,5-Trichlorophenol	0.51	U	83.3	83.0		ug/L		100	20 - 160	1	20
2,4-Dinitrotoluene	1.1	U	83.3	89.4		ug/L		107	70 - 130	4	20
4-Nitrophenol	4.8	U	167	67.0		ug/L		40	20 - 160	1	20
4,6-Dinitro-2-methylphenol	2.1	U	167	175		ug/L		105	20 - 160	6	20
N-Nitrosodi-n-propylamine	0.86	U	83.3	70.8		ug/L		85	70 - 130	4	20
Hexachloroethane	0.094	U	83.3	62.2		ug/L		75	20 - 160	3	20
Nitrobenzene	0.51	U	83.3	59.7		ug/L		72	70 - 130	1	20
Isophorone	0.70	U	83.3	61.8		ug/L		74	70 - 130	3	20
Naphthalene	0.83	U	83.3	69.5		ug/L		83	70 - 130	2	20
4-Chloroaniline	0.76	U	83.3	67.6		ug/L		81	20 - 160	12	20
Hexachlorobutadiene	0.79	U	83.3	65.3		ug/L		78	70 - 130	5	20
2-Methylnaphthalene	0.92	U	83.3	68.5		ug/L		82	70 - 130	4	20
Hexachlorocyclopentadiene	0.64	U	83.3	64.5		ug/L		77	20 - 160	3	20
2-Chloronaphthalene	0.64	U	83.3	69.8		ug/L		84	70 - 130	0	20
2-Nitroaniline	0.68	U	83.3	75.0		ug/L		90	20 - 160	3	20
Dimethyl phthalate	1.0	U	83.3	76.9		ug/L		92	70 - 130	12	20
Acenaphthylene	0.68	U	83.3	70.0		ug/L		84	70 - 130	7	20
2,6-Dinitrotoluene	0.92	U	83.3	86.6		ug/L		104	70 - 130	3	20
3-Nitroaniline	0.85	U	83.3	70.5		ug/L		85	20 - 160	1	20
Acenaphthene	0.92	U	83.3	68.7		ug/L		82	70 - 130	2	20
Dibenzofuran	0.89	U	83.3	74.1		ug/L		89	70 - 130	7	20
2,4-Dinitrophenol	2.5	U	167	158		ug/L		95	20 - 160	2	20
Diethyl phthalate	1.0	U	83.3	76.2		ug/L		91	70 - 130	4	20
4-Chlorophenyl phenyl ether	1.0	U	83.3	82.8		ug/L		99	70 - 130	9	20
Fluorene	0.83	U	83.3	76.0		ug/L		91	70 - 130	6	20
4-Nitroaniline	0.50	U	83.3	83.0		ug/L		100	20 - 160	4	20
N-Nitrosodiphenylamine	0.77	U	83.3	77.7		ug/L		93	70 - 130	9	20
4-Bromophenyl phenyl ether	1.1	U	83.3	83.3		ug/L		100	70 - 130	4	20
Phenanthrene	0.68	U	83.3	78.6		ug/L		94	70 - 130	4	20
Anthracene	0.59	U	83.3	75.1		ug/L		90	70 - 130	1	20
Carbazole	0.89	U	83.3	76.6		ug/L		92	70 - 130	3	20
Di-n-butyl phthalate	0.85	U	83.3	75.9		ug/L		91	70 - 130	3	20
Fluoranthene	0.75	U	83.3	81.8		ug/L		98	70 - 130	3	20
Pyrene	0.86	U	83.3	76.1		ug/L		91	70 - 130	5	20
Butyl benzyl phthalate	0.63	U	83.3	77.4		ug/L		93	70 - 130	4	20
Chrysene	0.70	U	83.3	80.6		ug/L		97	70 - 130	4	20
Bis(2-ethylhexyl) phthalate	0.75	U	83.3	80.3		ug/L		96	70 - 130	5	20
Di-n-octyl phthalate	0.72	U	83.3	72.8		ug/L		87	70 - 130	4	20
Benzo[k]fluoranthene	0.19	U	83.3	68.1		ug/L		82	70 - 130	0	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-118898-4 MSD
Matrix: Water
Analysis Batch: 387265

Client Sample ID: OB-6-081816
Prep Type: Total/NA
Prep Batch: 386330

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[g,h,i]perylene	0.78	U	83.3	82.6		ug/L		99	70 - 130	5	20
1,1'-Biphenyl	0.66	U	83.3	71.1		ug/L		85	70 - 130	9	20
Acetophenone	1.1	U	83.3	82.7		ug/L		99	70 - 130	3	20
Benzaldehyde	0.90	U	167	138		ug/L		83	20 - 160	1	20
Caprolactam	1.1	U	167	37.0		ug/L		22	20 - 160	7	20
Atrazine	0.80	U	167	159		ug/L		95	70 - 130	8	20
2,2'-oxybis[1-chloropropane]	0.97	U	83.3	64.3		ug/L		77	70 - 130	0	20
1,2,4,5-Tetrachlorobenzene	0.45	U	83.3	78.0		ug/L		94	70 - 130	4	20
2,3,4,6-Tetrachlorophenol	0.72	U	83.3	92.2		ug/L		111	70 - 130	6	20
3,3'-Dichlorobenzidine	1.1	U	83.3	80.4		ug/L		96	70 - 130	12	20
Bis(2-chloroethoxy)methane	0.72	U	83.3	63.2		ug/L		76	70 - 130	10	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*82*		*30 - 130*
Phenol-d5 (Surr)	*29*		*15 - 110*
Terphenyl-d14 (Surr)	*93*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*128*	*X*	*15 - 110*
2-Fluorophenol (Surr)	*49*		*15 - 110*
2-Fluorobiphenyl	*78*		*30 - 130*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 460-386330/1-A
Matrix: Water
Analysis Batch: 387556

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386330

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/23/16 14:12	08/30/16 19:01	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/23/16 14:12	08/30/16 19:01	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/23/16 14:12	08/30/16 19:01	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/23/16 14:12	08/30/16 19:01	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/23/16 14:12	08/30/16 19:01	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		08/23/16 14:12	08/30/16 19:01	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/23/16 14:12	08/30/16 19:01	1
N-Nitrosodimethylamine	0.051	U	0.20	0.051	ug/L		08/23/16 14:12	08/30/16 19:01	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/23/16 14:12	08/30/16 19:01	1

Lab Sample ID: LCS 460-386330/4-A
Matrix: Water
Analysis Batch: 387556

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386330

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.800	0.643		ug/L		80	70 - 130
Benzo[a]pyrene	0.800	0.619		ug/L		77	70 - 130
Benzo[b]fluoranthene	0.800	0.601		ug/L		75	70 - 130
Bis(2-chloroethyl)ether	0.800	0.712		ug/L		89	70 - 130
Dibenz(a,h)anthracene	0.800	0.649		ug/L		81	70 - 130
Hexachlorobenzene	0.800	0.605		ug/L		76	70 - 130

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 460-386330/4-A
Matrix: Water
Analysis Batch: 387556

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386330

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Indeno[1,2,3-cd]pyrene	0.800	0.620		ug/L		78	70 - 130
N-Nitrosodimethylamine	0.800	0.337		ug/L		42	20 - 160
Pentachlorophenol	1.60	0.549		ug/L		34	20 - 160

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-386385/1-A
Matrix: Water
Analysis Batch: 386462

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386385

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 08:07	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/23/16 19:58	08/24/16 08:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*82*		*30 - 150*	*08/23/16 19:58*	*08/24/16 08:07*	*1*
DCB Decachlorobiphenyl	*136*		*30 - 150*	*08/23/16 19:58*	*08/24/16 08:07*	*1*

Lab Sample ID: LCS 460-386385/2-A
Matrix: Water
Analysis Batch: 386462

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386385

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	4.00	4.06		ug/L		102	40 - 140
PCB-1016	4.00	3.94		ug/L		99	40 - 140
PCB-1260	4.00	5.09		ug/L		127	40 - 140
PCB-1260	4.00	5.10		ug/L		127	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*73*		*30 - 150*
DCB Decachlorobiphenyl	*112*		*30 - 150*

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 386462

Client Sample ID: OB-6-081816
Prep Type: Total/NA
Prep Batch: 386385

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.098	U	4.00	3.83		ug/L		96	40 - 140
PCB-1260	0.084	U F1	4.00	5.40		ug/L		135	40 - 140

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 386462

Client Sample ID: OB-6-081816
Prep Type: Total/NA
Prep Batch: 386385

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	63		30 - 150
DCB Decachlorobiphenyl	104		30 - 150

Lab Sample ID: 460-118898-4 MSD
Matrix: Water
Analysis Batch: 386462

Client Sample ID: OB-6-081816
Prep Type: Total/NA
Prep Batch: 386385

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	0.098	U	4.00	4.26		ug/L		107	40 - 140	11	20
PCB-1260	0.084	U F1	4.00	5.89	F1	ug/L		147	40 - 140	9	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	74		30 - 150
DCB Decachlorobiphenyl	114		30 - 150

Lab Sample ID: MB 460-386469/1-A
Matrix: Water
Analysis Batch: 386789

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386469

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 15:05	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 15:05	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 15:05	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 15:05	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 15:05	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 07:49	08/25/16 15:05	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 15:05	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 15:05	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 15:05	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 07:49	08/25/16 15:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	93		30 - 150	08/24/16 07:49	08/25/16 15:05	1
DCB Decachlorobiphenyl	102		30 - 150	08/24/16 07:49	08/25/16 15:05	1

Lab Sample ID: LCS 460-386469/2-A
Matrix: Water
Analysis Batch: 386789

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386469

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			4.00	4.16		ug/L		104	40 - 140		
PCB-1260			4.00	4.50		ug/L		112	40 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	92		30 - 150
DCB Decachlorobiphenyl	93		30 - 150

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-386469/3-A
Matrix: Water
Analysis Batch: 386789

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 386469

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			4.00	3.86		ug/L		97	40 - 140	7	20
PCB-1260			4.00	4.00		ug/L		100	40 - 140	12	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*81*		*30 - 150*
DCB Decachlorobiphenyl	*84*		*30 - 150*

Lab Sample ID: MB 460-386623/1-A
Matrix: Water
Analysis Batch: 386701

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386623

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 07:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*94*		*30 - 150*	*08/24/16 19:43*	*08/25/16 07:38*	*1*
DCB Decachlorobiphenyl	*139*		*30 - 150*	*08/24/16 19:43*	*08/25/16 07:38*	*1*

Lab Sample ID: LCS 460-386623/2-A
Matrix: Water
Analysis Batch: 386701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386623

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016			4.00	4.53		ug/L		113	40 - 140
PCB-1260			4.00	5.39		ug/L		135	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*93*		*30 - 150*
DCB Decachlorobiphenyl	*121*		*30 - 150*

Lab Sample ID: 460-118951-J-4-B MS
Matrix: Water
Analysis Batch: 386701

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 386623

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.098	U	4.00	4.37		ug/L		109	40 - 140
PCB-1260	0.084	U F1	4.00	5.43		ug/L		136	40 - 140

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 460-118951-J-4-B MS
Matrix: Water
Analysis Batch: 386701

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 386623

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	*87*		*30 - 150*
DCB Decachlorobiphenyl	*125*		*30 - 150*

Lab Sample ID: 460-118951-L-4-A MSD
Matrix: Water
Analysis Batch: 386701

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 386623

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	0.098	U	4.00	4.80		ug/L		120	40 - 140	9	20
PCB-1260	0.084	U F1	4.00	5.67	F1	ug/L		142	40 - 140	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	*93*		*30 - 150*
DCB Decachlorobiphenyl	*125*		*30 - 150*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 460-386092/3
Matrix: Water
Analysis Batch: 386092

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			08/22/16 16:00	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/22/16 16:00	1

Lab Sample ID: LCS 460-386092/5
Matrix: Water
Analysis Batch: 386092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.197		mg/L		104	90 - 110
Chloride	1.50	1.534		mg/L		102	90 - 110
Fluoride	1.00	1.097		mg/L		110	90 - 110
Sulfate	7.50	7.628		mg/L		102	90 - 110

Lab Sample ID: LCSD 460-386092/6
Matrix: Water
Analysis Batch: 386092

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	5.112		mg/L		102	90 - 110	2	15
Chloride	1.50	1.511		mg/L		101	90 - 110	1	15
Fluoride	1.00	1.045		mg/L		104	90 - 110	5	15
Sulfate	7.50	7.703		mg/L		103	90 - 110	1	15

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 386092

Client Sample ID: OB-6-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide	0.081	U	5.00	4.966		mg/L		99	90 - 110		
Fluoride	0.062	J	1.00	1.112		mg/L		105	90 - 110		

Lab Sample ID: 460-118898-4 MSD
Matrix: Water
Analysis Batch: 386092

Client Sample ID: OB-6-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.081	U	5.00	4.686		mg/L		94	90 - 110	6	15
Fluoride	0.062	J	1.00	1.055		mg/L		99	90 - 110	5	15

Lab Sample ID: 460-118898-4 DU
Matrix: Water
Analysis Batch: 386092

Client Sample ID: OB-6-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	22.1		22.29		mg/L		1	15

Lab Sample ID: MB 460-386479/3
Matrix: Water
Analysis Batch: 386479

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			08/24/16 09:23	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/24/16 09:23	1

Lab Sample ID: LCS 460-386479/5
Matrix: Water
Analysis Batch: 386479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.436		mg/L		109	90 - 110
Chloride	1.50	1.555		mg/L		104	90 - 110
Fluoride	1.00	1.081		mg/L		108	90 - 110
Sulfate	7.50	7.908		mg/L		105	90 - 110

Lab Sample ID: LCSD 460-386479/6
Matrix: Water
Analysis Batch: 386479

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	5.273		mg/L		105	90 - 110	3	15
Chloride	1.50	1.543		mg/L		103	90 - 110	1	15
Fluoride	1.00	1.050		mg/L		105	90 - 110	3	15
Sulfate	7.50	7.795		mg/L		104	90 - 110	1	15

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 460-118898-14 MS
Matrix: Water
Analysis Batch: 386479

Client Sample ID: OB-25-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	8.10	U	500	487.6		mg/L		98	90 - 110
Chloride	108	D	150	258.2		mg/L		100	90 - 110
Fluoride	1.50	U	100	96.28		mg/L		96	90 - 110
Sulfate	75.6	D F1	750	741.8	F1	mg/L		89	90 - 110

Lab Sample ID: 460-118898-14 MSD
Matrix: Water
Analysis Batch: 386479

Client Sample ID: OB-25-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	8.10	U	500	487.7		mg/L		98	90 - 110	0	15
Chloride	108	D	150	254.6		mg/L		98	90 - 110	1	15
Fluoride	1.50	U	100	101.9		mg/L		102	90 - 110	6	15
Sulfate	75.6	D F1	750	740.2	F1	mg/L		89	90 - 110	0	15

Lab Sample ID: MB 460-387602/3
Matrix: Water
Analysis Batch: 387602

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			08/30/16 12:14	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/30/16 12:14	1

Lab Sample ID: LCS 460-387602/4
Matrix: Water
Analysis Batch: 387602

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.022		mg/L		100	90 - 110
Chloride	1.50	1.488		mg/L		99	90 - 110
Fluoride	1.00	1.023		mg/L		102	90 - 110
Sulfate	7.50	7.376		mg/L		98	90 - 110

Lab Sample ID: LCSD 460-387602/5
Matrix: Water
Analysis Batch: 387602

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	4.988		mg/L		100	90 - 110	1	15
Chloride	1.50	1.482		mg/L		99	90 - 110	0	15
Fluoride	1.00	1.053		mg/L		105	90 - 110	3	15
Sulfate	7.50	7.451		mg/L		99	90 - 110	1	15

Lab Sample ID: 460-119025-M-3 MS
Matrix: Water
Analysis Batch: 387602

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.16	U	10.0	9.919		mg/L		99	90 - 110

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 460-119025-M-3 MS
Matrix: Water
Analysis Batch: 387602

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.96	F1 D	3.00	9.438	E F1	mg/L		116	90 - 110
Fluoride	0.14	J D	2.00	2.148		mg/L		100	90 - 110
Sulfate	1.65	F1 D	15.0	15.10		mg/L		90	90 - 110

Lab Sample ID: 460-119025-M-3 MSD
Matrix: Water
Analysis Batch: 387602

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.16	U	10.0	9.860		mg/L		99	90 - 110	1	15
Chloride	5.96	F1 D	3.00	9.336	E F1	mg/L		112	90 - 110	1	15
Fluoride	0.14	J D	2.00	2.089		mg/L		97	90 - 110	3	15
Sulfate	1.65	F1 D	15.0	14.90	F1	mg/L		88	90 - 110	1	15

Lab Sample ID: 460-119025-M-3 DU
Matrix: Water
Analysis Batch: 387602

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	5.96	F1 D	5.951		mg/L		0.2	15
Sulfate	1.65	F1 D	1.611		mg/L		3	15

Lab Sample ID: MB 460-387892/3
Matrix: Water
Analysis Batch: 387892

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			08/31/16 11:19	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/31/16 11:19	1

Lab Sample ID: LCS 460-387892/5
Matrix: Water
Analysis Batch: 387892

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.015		mg/L		100	90 - 110
Chloride	1.50	1.484		mg/L		99	90 - 110
Fluoride	1.00	1.007		mg/L		101	90 - 110
Sulfate	7.50	7.392		mg/L		99	90 - 110

Lab Sample ID: LCSD 460-387892/6
Matrix: Water
Analysis Batch: 387892

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	4.978		mg/L		100	90 - 110	1	15
Chloride	1.50	1.461		mg/L		97	90 - 110	2	15
Fluoride	1.00	1.008		mg/L		101	90 - 110	0	15
Sulfate	7.50	7.258		mg/L		97	90 - 110	2	15

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 460-118898-9 MS
Matrix: Water
Analysis Batch: 387892

Client Sample ID: OB-5-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	4.05	U	250	246.3		mg/L		99	90 - 110
Chloride	89.9	D F1	75.0	173.1	F1	mg/L		111	90 - 110
Fluoride	0.75	U	50.0	50.59		mg/L		101	90 - 110
Sulfate	40.5	D F1	375	373.0	F1	mg/L		89	90 - 110

Lab Sample ID: 460-118898-9 MSD
Matrix: Water
Analysis Batch: 387892

Client Sample ID: OB-5-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	4.05	U	250	250.3		mg/L		100	90 - 110	2	15
Chloride	89.9	D F1	75.0	173.9	F1	mg/L		112	90 - 110	0	15
Fluoride	0.75	U	50.0	51.51		mg/L		103	90 - 110	2	15
Sulfate	40.5	D F1	375	378.9		mg/L		90	90 - 110	2	15

Method: 9056A - Anions, Ion Chromatography - DL

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 386092

Client Sample ID: OB-6-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride - DL	8.53	D	7.50	16.55		mg/L		107	90 - 110
Sulfate - DL	21.5	D	37.5	60.09		mg/L		103	90 - 110

Lab Sample ID: 460-118898-4 MSD
Matrix: Water
Analysis Batch: 386092

Client Sample ID: OB-6-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride - DL	8.53	D	7.50	16.60		mg/L		108	90 - 110	0	15
Sulfate - DL	21.5	D	37.5	59.87		mg/L		102	90 - 110	0	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 460-387090/1-A ^2
Matrix: Water
Analysis Batch: 387280

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387090

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 20:30	08/27/16 18:53	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 20:30	08/27/16 18:53	2
Barium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 18:53	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 20:30	08/27/16 18:53	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 20:30	08/27/16 18:53	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 18:53	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 20:30	08/27/16 18:53	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 18:53	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-387090/1-A ^2
Matrix: Water
Analysis Batch: 387280

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387090

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	3.0	U	8.0	3.0	ug/L		08/26/16 20:30	08/27/16 18:53	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 20:30	08/27/16 18:53	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 20:30	08/27/16 18:53	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 20:30	08/27/16 18:53	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 20:30	08/27/16 18:53	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 20:30	08/27/16 18:53	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 20:30	08/27/16 18:53	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 20:30	08/27/16 18:53	2
Sodium	87.6	U	200	87.6	ug/L		08/26/16 20:30	08/27/16 18:53	2
Magnesium	68.4	U	200	68.4	ug/L		08/26/16 20:30	08/27/16 18:53	2
Potassium	74.8	U	200	74.8	ug/L		08/26/16 20:30	08/27/16 18:53	2
Calcium	69.5	U	200	69.5	ug/L		08/26/16 20:30	08/27/16 18:53	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 20:30	08/27/16 18:53	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 20:30	08/27/16 18:53	2

Lab Sample ID: LCS 460-387090/2-A ^2
Matrix: Water
Analysis Batch: 387280

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387090

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	27.43		ug/L		110	80 - 120
Arsenic	50.0	49.68		ug/L		99	80 - 120
Barium	50.0	51.47		ug/L		103	80 - 120
Beryllium	25.0	22.60		ug/L		90	80 - 120
Cadmium	25.0	25.47		ug/L		102	80 - 120
Cobalt	25.0	26.63		ug/L		107	80 - 120
Chromium	50.0	53.06		ug/L		106	80 - 120
Copper	50.0	54.06		ug/L		108	80 - 120
Manganese	250	263.3		ug/L		105	80 - 120
Nickel	50.0	53.71		ug/L		107	80 - 120
Lead	25.0	25.69		ug/L		103	80 - 120
Antimony	25.0	25.57		ug/L		102	80 - 120
Selenium	50.0	48.09		ug/L		96	80 - 120
Vanadium	50.0	51.73		ug/L		103	80 - 120
Zinc	250	258.6		ug/L		103	80 - 120
Aluminum	2500	2481		ug/L		99	80 - 120
Sodium	2500	2622		ug/L		105	80 - 120
Magnesium	2500	2635		ug/L		105	80 - 120
Potassium	2500	2523		ug/L		101	80 - 120
Calcium	2500	2667		ug/L		107	80 - 120
Iron	2500	2593		ug/L		104	80 - 120
Thallium	20.0	20.42		ug/L		102	80 - 120

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 387280

Client Sample ID: OB-6-081816
Prep Type: Total/NA
Prep Batch: 387090

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.5	U	25.0	27.48		ug/L		110	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 387280

Client Sample ID: OB-6-081816
Prep Type: Total/NA
Prep Batch: 387090

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.71	U	50.0	46.02		ug/L		92	75 - 125
Barium	17.0		50.0	68.76		ug/L		104	75 - 125
Beryllium	0.29	U	25.0	23.48		ug/L		94	75 - 125
Cadmium	0.72	U	25.0	26.63		ug/L		107	75 - 125
Cobalt	9.5		25.0	36.55		ug/L		108	75 - 125
Chromium	1.5	U	50.0	54.33		ug/L		109	75 - 125
Copper	3.9	J	50.0	58.58		ug/L		109	75 - 125
Manganese	836		250	1110		ug/L		110	75 - 125
Nickel	2.2	J	50.0	56.87		ug/L		109	75 - 125
Lead	0.44	U	25.0	26.52		ug/L		106	75 - 125
Antimony	0.76	U	25.0	26.25		ug/L		105	75 - 125
Selenium	0.79	U	50.0	44.88		ug/L		90	75 - 125
Vanadium	1.4	U	50.0	53.40		ug/L		107	75 - 125
Zinc	6.5	U	250	263.2		ug/L		105	75 - 125
Aluminum	19.0	J	2500	2563		ug/L		102	75 - 125
Sodium	15600		2500	18500	4	ug/L		116	75 - 125
Magnesium	5250		2500	8032		ug/L		111	75 - 125
Potassium	1860		2500	4463		ug/L		104	75 - 125
Calcium	20300		2500	23320	4	ug/L		120	75 - 125
Iron	12100		2500	14830	4	ug/L		108	75 - 125
Thallium	0.31	U	20.0	21.10		ug/L		106	75 - 125

Lab Sample ID: 460-118898-4 DU
Matrix: Water
Analysis Batch: 387280

Client Sample ID: OB-6-081816
Prep Type: Total/NA
Prep Batch: 387090

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.5	U	1.5	U	ug/L		NC	20
Arsenic	0.71	U	0.71	U	ug/L		NC	20
Barium	17.0		16.90		ug/L		0.3	20
Beryllium	0.29	U	0.29	U	ug/L		NC	20
Cadmium	0.72	U	0.72	U	ug/L		NC	20
Cobalt	9.5		9.53		ug/L		0.8	20
Chromium	1.5	U	1.5	U	ug/L		NC	20
Copper	3.9	J	3.79	J	ug/L		2	20
Manganese	836		834.8		ug/L		0.1	20
Nickel	2.2	J	2.18	J	ug/L		0.8	20
Lead	0.44	U	0.44	U	ug/L		NC	20
Antimony	0.76	U	0.76	U	ug/L		NC	20
Selenium	0.79	U	0.79	U	ug/L		NC	20
Vanadium	1.4	U	1.4	U	ug/L		NC	20
Zinc	6.5	U	14.79	J	ug/L		NC	20
Aluminum	19.0	J	14.98	J F5	ug/L		23	20
Sodium	15600		15570		ug/L		0.2	20
Magnesium	5250		5241		ug/L		0.1	20
Potassium	1860		1854		ug/L		0.05	20
Calcium	20300		20470		ug/L		0.8	20
Iron	12100		12130		ug/L		0	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-118898-4 DU
Matrix: Water
Analysis Batch: 387280

Client Sample ID: OB-6-081816
Prep Type: Total/NA
Prep Batch: 387090

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Thallium	0.31	U	0.31	U	ug/L		NC	20

Lab Sample ID: MB 460-387091/1-A
Matrix: Water
Analysis Batch: 387734

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387091

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 19:03	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 19:03	2

Lab Sample ID: MB 460-387091/1-A ^2
Matrix: Water
Analysis Batch: 387394

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387091

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:15	2
Barium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:15	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 19:15	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 19:15	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:15	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:15	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:15	2
Manganese	3.0	U	8.0	3.0	ug/L		08/26/16 21:49	08/28/16 19:15	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:15	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 19:15	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 19:15	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 19:15	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 19:15	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 21:49	08/28/16 19:15	2
Sodium	87.6	U	200	87.6	ug/L		08/26/16 21:49	08/28/16 19:15	2
Magnesium	68.4	U	200	68.4	ug/L		08/26/16 21:49	08/28/16 19:15	2
Potassium	74.8	U	200	74.8	ug/L		08/26/16 21:49	08/28/16 19:15	2
Calcium	69.5	U	200	69.5	ug/L		08/26/16 21:49	08/28/16 19:15	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 21:49	08/28/16 19:15	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 19:15	2

Lab Sample ID: LCS 460-387091/2-A
Matrix: Water
Analysis Batch: 387734

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387091

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	52.50		ug/L		105	80 - 120
Selenium	50.0	50.74		ug/L		101	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-387091/2-A ^2
Matrix: Water
Analysis Batch: 387394

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387091

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	26.88		ug/L		108	80 - 120
Barium	50.0	50.50		ug/L		101	80 - 120
Beryllium	25.0	23.64		ug/L		95	80 - 120
Cadmium	25.0	25.78		ug/L		103	80 - 120
Cobalt	25.0	25.90		ug/L		104	80 - 120
Chromium	50.0	51.95		ug/L		104	80 - 120
Copper	50.0	49.83		ug/L		100	80 - 120
Manganese	250	257.6		ug/L		103	80 - 120
Nickel	50.0	52.23		ug/L		104	80 - 120
Lead	25.0	25.55		ug/L		102	80 - 120
Antimony	25.0	25.58		ug/L		102	80 - 120
Vanadium	50.0	50.90		ug/L		102	80 - 120
Zinc	250	256.8		ug/L		103	80 - 120
Aluminum	2500	2493		ug/L		100	80 - 120
Sodium	2500	2579		ug/L		103	80 - 120
Magnesium	2500	2563		ug/L		103	80 - 120
Potassium	2500	2496		ug/L		100	80 - 120
Calcium	2500	2698		ug/L		108	80 - 120
Iron	2500	2556		ug/L		102	80 - 120
Thallium	20.0	20.40		ug/L		102	80 - 120

Lab Sample ID: 460-118951-G-4-D MS ^2
Matrix: Water
Analysis Batch: 387394

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387091

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.5	U	25.0	27.94		ug/L		112	75 - 125
Barium	116		50.0	163.8		ug/L		96	75 - 125
Beryllium	0.29	U	25.0	23.32		ug/L		93	75 - 125
Cadmium	0.72	U	25.0	26.32		ug/L		105	75 - 125
Cobalt	1.5	U	25.0	26.70		ug/L		107	75 - 125
Chromium	1.5	U	50.0	53.37		ug/L		107	75 - 125
Copper	1.6	U	50.0	51.20		ug/L		102	75 - 125
Manganese	577		250	825.2		ug/L		99	75 - 125
Nickel	1.6	U	50.0	53.90		ug/L		108	75 - 125
Lead	0.44	U	25.0	26.26		ug/L		105	75 - 125
Antimony	0.76	U	25.0	26.77		ug/L		107	75 - 125
Vanadium	1.4	U	50.0	52.12		ug/L		104	75 - 125
Zinc	6.5	U	250	260.3		ug/L		104	75 - 125
Aluminum	13.5	U	2500	2534		ug/L		101	75 - 125
Sodium	4310		2500	6817		ug/L		100	75 - 125
Magnesium	4780		2500	7249		ug/L		99	75 - 125
Potassium	1910		2500	4359		ug/L		98	75 - 125
Calcium	28700		2500	30340	4	ug/L		67	75 - 125
Iron	1350		2500	3899		ug/L		102	75 - 125
Thallium	0.31	U	20.0	21.15		ug/L		106	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-118951-A-4-B DU ^2
Matrix: Water
Analysis Batch: 387394

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 387091

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.5	U	1.5	U	ug/L		NC	20
Barium	116		120.4		ug/L		4	20
Beryllium	0.29	U	0.29	U	ug/L		NC	20
Cadmium	0.72	U	0.72	U	ug/L		NC	20
Cobalt	1.5	U	1.5	U	ug/L		NC	20
Chromium	1.5	U	1.5	U	ug/L		NC	20
Copper	1.6	U	1.6	U	ug/L		NC	20
Manganese	577		593.5		ug/L		3	20
Nickel	1.6	U	1.6	U	ug/L		NC	20
Lead	0.44	U	0.44	U	ug/L		NC	20
Antimony	0.76	U	0.76	U	ug/L		NC	20
Vanadium	1.4	U	1.4	U	ug/L		NC	20
Zinc	6.5	U	6.5	U	ug/L		NC	20
Aluminum	13.5	U	13.5	U	ug/L		NC	20
Sodium	4310		4432		ug/L		3	20
Magnesium	4780		4930		ug/L		3	20
Potassium	1910		1979		ug/L		3	20
Calcium	28700		29350		ug/L		2	20
Iron	1350		1395		ug/L		3	20
Thallium	0.31	U	0.31	U	ug/L		NC	20

Lab Sample ID: LCS 460-387404/2-A
Matrix: Water
Analysis Batch: 388143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387404

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	10.0	10.52		ug/L		105	80 - 120
Potassium	500	520.9		ug/L		104	80 - 120

Lab Sample ID: LCS 460-387404/2-A ^2
Matrix: Water
Analysis Batch: 387675

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387404

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	10.0	9.10		ug/L		91	80 - 120
Arsenic	20.0	18.55		ug/L		93	80 - 120
Beryllium	10.0	8.76		ug/L		88	80 - 120
Cadmium	10.0	9.49		ug/L		95	80 - 120
Cobalt	10.0	9.38		ug/L		94	80 - 120
Chromium	20.0	18.39		ug/L		92	80 - 120
Copper	20.0	18.80		ug/L		94	80 - 120
Manganese	100	84.84		ug/L		85	80 - 120
Nickel	20.0	18.30		ug/L		91	80 - 120
Lead	10.0	9.23		ug/L		92	80 - 120
Antimony	10.0	8.90		ug/L		89	80 - 120
Selenium	20.0	18.66		ug/L		93	80 - 120
Vanadium	20.0	17.96		ug/L		90	80 - 120
Zinc	100	91.84		ug/L		92	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-387404/2-A ^2
Matrix: Water
Analysis Batch: 387675

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387404

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	1000	942.4		ug/L		94	80 - 120
Sodium	1000	867.4		ug/L		87	80 - 120
Magnesium	1000	861.4		ug/L		86	80 - 120
Calcium	1000	974.0		ug/L		97	80 - 120
Iron	1000	903.0		ug/L		90	80 - 120
Thallium	8.00	7.26		ug/L		91	80 - 120

Lab Sample ID: MB 460-387390/1-B
Matrix: Water
Analysis Batch: 388143

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 387404

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.73	U	2.0	0.73	ug/L		08/29/16 11:21	09/01/16 08:41	1
Potassium	37.4	U	100	37.4	ug/L		08/29/16 11:21	09/01/16 08:41	1

Lab Sample ID: MB 460-387390/1-B ^2
Matrix: Water
Analysis Batch: 387675

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 387404

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 11:21	08/29/16 14:36	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 11:21	08/29/16 14:36	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 11:21	08/29/16 14:36	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 11:21	08/29/16 14:36	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 14:36	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 11:21	08/29/16 14:36	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 14:36	2
Manganese	3.0	U	8.0	3.0	ug/L		08/29/16 11:21	08/29/16 14:36	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 11:21	08/29/16 14:36	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 11:21	08/29/16 14:36	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 11:21	08/29/16 14:36	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 11:21	08/29/16 14:36	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 11:21	08/29/16 14:36	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 11:21	08/29/16 14:36	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 11:21	08/29/16 14:36	2
Sodium	87.6	U	200	87.6	ug/L		08/29/16 11:21	08/29/16 14:36	2
Magnesium	68.4	U	200	68.4	ug/L		08/29/16 11:21	08/29/16 14:36	2
Calcium	69.5	U	200	69.5	ug/L		08/29/16 11:21	08/29/16 14:36	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 11:21	08/29/16 14:36	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 11:21	08/29/16 14:36	2

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 387675

Client Sample ID: OB-6-081816
Prep Type: Dissolved
Prep Batch: 387404

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.5	U F1	10.0	7.17	F1	ug/L		72	75 - 125
Arsenic	0.71	U	20.0	17.73		ug/L		89	75 - 125
Beryllium	0.29	U	10.0	9.01		ug/L		90	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 387675

Client Sample ID: OB-6-081816
Prep Type: Dissolved
Prep Batch: 387404

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.72	U	10.0	9.25		ug/L		92	75 - 125
Cobalt	9.1		10.0	17.90		ug/L		88	75 - 125
Chromium	1.5	U	20.0	17.61		ug/L		88	75 - 125
Copper	1.6	U	20.0	18.38		ug/L		92	75 - 125
Manganese	749		100	827.4	4	ug/L		79	75 - 125
Nickel	1.7	J	20.0	18.92		ug/L		86	75 - 125
Lead	0.44	U	10.0	8.88		ug/L		89	75 - 125
Antimony	0.76	U	10.0	8.70		ug/L		87	75 - 125
Selenium	0.79	U	20.0	18.74		ug/L		94	75 - 125
Vanadium	1.4	U	20.0	17.71		ug/L		89	75 - 125
Zinc	6.5	U	100	90.40		ug/L		90	75 - 125
Aluminum	13.5	U	1000	902.0		ug/L		90	75 - 125
Sodium	14500		1000	15350	4	ug/L		87	75 - 125
Magnesium	4670		1000	5464	4	ug/L		80	75 - 125
Calcium	21100		1000	22080	4	ug/L		98	75 - 125
Iron	2980		1000	3832		ug/L		85	75 - 125
Thallium	0.31	U	8.00	7.20		ug/L		90	75 - 125

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 388143

Client Sample ID: OB-6-081816
Prep Type: Dissolved
Prep Batch: 387404

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	15.6		20.0	36.55		ug/L		105	75 - 125
Potassium	1930		1000	3009		ug/L		108	75 - 125

Lab Sample ID: 460-118898-4 DU
Matrix: Water
Analysis Batch: 387675

Client Sample ID: OB-6-081816
Prep Type: Dissolved
Prep Batch: 387404

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.5	U F1	1.5	U	ug/L		NC	20
Arsenic	0.71	U	0.71	U	ug/L		NC	20
Beryllium	0.29	U	0.29	U	ug/L		NC	20
Cadmium	0.72	U	0.72	U	ug/L		NC	20
Cobalt	9.1		8.92		ug/L		2	20
Chromium	1.5	U	1.5	U	ug/L		NC	20
Copper	1.6	U	1.6	U	ug/L		NC	20
Manganese	749		748.4		ug/L		0	20
Nickel	1.7	J	1.72	J	ug/L		1	20
Lead	0.44	U	0.44	U	ug/L		NC	20
Antimony	0.76	U	0.76	U	ug/L		NC	20
Selenium	0.79	U	0.79	U	ug/L		NC	20
Vanadium	1.4	U	1.4	U	ug/L		NC	20
Zinc	6.5	U	6.5	U	ug/L		NC	20
Aluminum	13.5	U	13.5	U	ug/L		NC	20
Sodium	14500		14560		ug/L		0.5	20
Magnesium	4670		4674		ug/L		0.1	20
Calcium	21100		21260		ug/L		0.8	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-118898-4 DU
Matrix: Water
Analysis Batch: 387675

Client Sample ID: OB-6-081816
Prep Type: Dissolved
Prep Batch: 387404

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iron	2980		2998		ug/L		0.5	20
Thallium	0.31	U	0.31	U	ug/L		NC	20

Lab Sample ID: 460-118898-4 DU
Matrix: Water
Analysis Batch: 388143

Client Sample ID: OB-6-081816
Prep Type: Dissolved
Prep Batch: 387404

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Barium	15.6		15.76		ug/L		1	20
Potassium	1930		1931		ug/L		0.3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-386526/1-A
Matrix: Water
Analysis Batch: 386593

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386526

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/24/16 11:57	08/24/16 13:53	1

Lab Sample ID: LCS 460-386526/2-A
Matrix: Water
Analysis Batch: 386593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386526

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.906		ug/L		91	80 - 120

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 386593

Client Sample ID: OB-6-081816
Prep Type: Total/NA
Prep Batch: 386526

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.14	U	1.00	0.993		ug/L		99	75 - 125

Lab Sample ID: 460-118898-4 DU
Matrix: Water
Analysis Batch: 386593

Client Sample ID: OB-6-081816
Prep Type: Total/NA
Prep Batch: 386526

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.14	U	0.14	U	ug/L		NC	20

Lab Sample ID: LCS 460-386977/2-A
Matrix: Water
Analysis Batch: 387030

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386977

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.983		ug/L		98	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 460-387416/2-A
Matrix: Water
Analysis Batch: 387486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387416

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.958		ug/L		96	80 - 120

Lab Sample ID: MB 460-386975/1-B
Matrix: Water
Analysis Batch: 387030

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 386977

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 12:16	08/26/16 14:35	1

Lab Sample ID: 460-118898-4 MS
Matrix: Water
Analysis Batch: 387030

Client Sample ID: OB-6-081816
Prep Type: Dissolved
Prep Batch: 386977

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.14	U	1.00	0.957		ug/L		96	75 - 125

Lab Sample ID: 460-118898-4 DU
Matrix: Water
Analysis Batch: 387030

Client Sample ID: OB-6-081816
Prep Type: Dissolved
Prep Batch: 386977

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.14	U	0.14	U	ug/L		NC	20

Lab Sample ID: MB 460-387417/1-B
Matrix: Water
Analysis Batch: 387486

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 387416

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 15:45	1

Lab Sample ID: 460-118951-H-4-D MS
Matrix: Water
Analysis Batch: 387486

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 387416

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.14	U	1.00	1.01		ug/L		101	75 - 125

Lab Sample ID: 460-118951-B-4-B DU
Matrix: Water
Analysis Batch: 387486

Client Sample ID: Duplicate
Prep Type: Dissolved
Prep Batch: 387416

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.14	U	0.14	U	ug/L		NC	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 460-387409/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387474 — **Prep Batch: 387409**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 11:55	08/29/16 15:29	1

Lab Sample ID: HLCS 460-387409/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387474 — **Prep Batch: 387409**

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.200	0.186		mg/L		93	80 - 120

Lab Sample ID: LLCS 460-387409/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387474 — **Prep Batch: 387409**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0952		mg/L		95	80 - 120

Lab Sample ID: 460-118898-4 MS — **Client Sample ID: OB-6-081816**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387474 — **Prep Batch: 387409**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0020	J	0.200	0.162		mg/L		80	75 - 125

Lab Sample ID: 460-118898-4 MSD — **Client Sample ID: OB-6-081816**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387474 — **Prep Batch: 387409**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0020	J	0.200	0.168		mg/L		83	75 - 125	4	20

Lab Sample ID: 460-118898-13 MS — **Client Sample ID: OB-7-081816**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387474 — **Prep Batch: 387409**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0020	U	0.200	0.165		mg/L		83	75 - 125

Lab Sample ID: 460-118898-13 MSD — **Client Sample ID: OB-7-081816**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387474 — **Prep Batch: 387409**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0020	U	0.200	0.170		mg/L		85	75 - 125	3	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 460-387653/1
Matrix: Water
Analysis Batch: 387653

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			08/30/16 10:00	1
Alkalinity	5.0	U	5.0	5.0	mg/L			08/30/16 10:00	1

Lab Sample ID: LCSSRM 460-387653/2
Matrix: Water
Analysis Batch: 387653

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	44.1	44.22		mg/L		100.3	90.5 - 107.9

Lab Sample ID: 460-118898-4 DU
Matrix: Water
Analysis Batch: 387653

Client Sample ID: OB-6-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	74.4		74.37		mg/L		0	17
Alkalinity	74.4		74.37		mg/L		0	17

Lab Sample ID: MB 460-388178/1
Matrix: Water
Analysis Batch: 388178

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/01/16 12:00	1
Alkalinity	5.0	U	5.0	5.0	mg/L			09/01/16 12:00	1

Lab Sample ID: LCSSRM 460-388178/2
Matrix: Water
Analysis Batch: 388178

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	44.1	44.22		mg/L		100.3	90.5 - 107.9

Lab Sample ID: 460-118898-14 DU
Matrix: Water
Analysis Batch: 388178

Client Sample ID: OB-25-081816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	137		136.7		mg/L		0	17
Alkalinity	137		136.7		mg/L		0	17

GC/MS VOA

Analysis Batch: 386495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-1	TB-03-081816	Total/NA	Water	8260C	
460-118898-2	FB-02-081816	Total/NA	Water	8260C	
460-118898-3	OB-20A-081816	Total/NA	Water	8260C	
460-118898-4	OB-6-081816	Total/NA	Water	8260C	
460-118898-5	OB-21-081816	Total/NA	Water	8260C	
460-118898-6	Dup-02-081816	Total/NA	Water	8260C	
460-118898-7	RW-6-081816	Total/NA	Water	8260C	
460-118898-8	RW-7-081816	Total/NA	Water	8260C	
460-118898-9	OB-5-081816	Total/NA	Water	8260C	
460-118898-10	OB-20B-081816	Total/NA	Water	8260C	
460-118898-11	RW-6A-081816	Total/NA	Water	8260C	
460-118898-12	RW-5A-081816	Total/NA	Water	8260C	
460-118898-13	OB-7-081816	Total/NA	Water	8260C	
460-118898-14	OB-25-081816	Total/NA	Water	8260C	
460-118898-15	RW-5-081816	Total/NA	Water	8260C	
MB 460-386495/7	Method Blank	Total/NA	Water	8260C	
LCS 460-386495/3	Lab Control Sample	Total/NA	Water	8260C	
460-118898-4 MS	OB-6-081816	Total/NA	Water	8260C	
460-118898-4 MSD	OB-6-081816	Total/NA	Water	8260C	

Analysis Batch: 386497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-1	TB-03-081816	Total/NA	Water	8260C SIM	
460-118898-2	FB-02-081816	Total/NA	Water	8260C SIM	
460-118898-3	OB-20A-081816	Total/NA	Water	8260C SIM	
460-118898-4	OB-6-081816	Total/NA	Water	8260C SIM	
460-118898-5	OB-21-081816	Total/NA	Water	8260C SIM	
460-118898-6	Dup-02-081816	Total/NA	Water	8260C SIM	
460-118898-7	RW-6-081816	Total/NA	Water	8260C SIM	
460-118898-8	RW-7-081816	Total/NA	Water	8260C SIM	
460-118898-9	OB-5-081816	Total/NA	Water	8260C SIM	
460-118898-10	OB-20B-081816	Total/NA	Water	8260C SIM	
460-118898-11	RW-6A-081816	Total/NA	Water	8260C SIM	
460-118898-12	RW-5A-081816	Total/NA	Water	8260C SIM	
460-118898-13	OB-7-081816	Total/NA	Water	8260C SIM	
460-118898-14	OB-25-081816	Total/NA	Water	8260C SIM	
MB 460-386497/8	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-386497/4	Lab Control Sample	Total/NA	Water	8260C SIM	
460-118898-4 MS	OB-6-081816	Total/NA	Water	8260C SIM	
460-118898-4 MSD	OB-6-081816	Total/NA	Water	8260C SIM	

Analysis Batch: 386835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-15	RW-5-081816	Total/NA	Water	8260C SIM	
MB 460-386835/7	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-386835/3	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 460-386835/4	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

GC/MS Semi VOA

Prep Batch: 386330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Total/NA	Water	3510C	
460-118898-3	OB-20A-081816	Total/NA	Water	3510C	
460-118898-4	OB-6-081816	Total/NA	Water	3510C	
460-118898-5	OB-21-081816	Total/NA	Water	3510C	
460-118898-6	Dup-02-081816	Total/NA	Water	3510C	
460-118898-7	RW-6-081816	Total/NA	Water	3510C	
460-118898-8	RW-7-081816	Total/NA	Water	3510C	
460-118898-9	OB-5-081816	Total/NA	Water	3510C	
460-118898-10	OB-20B-081816	Total/NA	Water	3510C	
460-118898-11	RW-6A-081816	Total/NA	Water	3510C	
460-118898-12	RW-5A-081816	Total/NA	Water	3510C	
460-118898-13	OB-7-081816	Total/NA	Water	3510C	
460-118898-14	OB-25-081816	Total/NA	Water	3510C	
460-118898-15	RW-5-081816	Total/NA	Water	3510C	
MB 460-386330/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-386330/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-386330/3-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-386330/4-A	Lab Control Sample	Total/NA	Water	3510C	
460-118898-4 MS	OB-6-081816	Total/NA	Water	3510C	
460-118898-4 MSD	OB-6-081816	Total/NA	Water	3510C	

Analysis Batch: 387265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Total/NA	Water	8270D	386330
460-118898-3	OB-20A-081816	Total/NA	Water	8270D	386330
460-118898-4	OB-6-081816	Total/NA	Water	8270D	386330
460-118898-5	OB-21-081816	Total/NA	Water	8270D	386330
460-118898-6	Dup-02-081816	Total/NA	Water	8270D	386330
460-118898-7	RW-6-081816	Total/NA	Water	8270D	386330
460-118898-8	RW-7-081816	Total/NA	Water	8270D	386330
460-118898-9	OB-5-081816	Total/NA	Water	8270D	386330
460-118898-10	OB-20B-081816	Total/NA	Water	8270D	386330
460-118898-11	RW-6A-081816	Total/NA	Water	8270D	386330
460-118898-12	RW-5A-081816	Total/NA	Water	8270D	386330
460-118898-13	OB-7-081816	Total/NA	Water	8270D	386330
460-118898-14	OB-25-081816	Total/NA	Water	8270D	386330
460-118898-15	RW-5-081816	Total/NA	Water	8270D	386330
LCS 460-386330/2-A	Lab Control Sample	Total/NA	Water	8270D	386330
LCS 460-386330/3-A	Lab Control Sample	Total/NA	Water	8270D	386330
460-118898-4 MS	OB-6-081816	Total/NA	Water	8270D	386330
460-118898-4 MSD	OB-6-081816	Total/NA	Water	8270D	386330

Analysis Batch: 387329

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-386330/1-A	Method Blank	Total/NA	Water	8270D	386330

Analysis Batch: 387556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Total/NA	Water	8270D SIM	386330
460-118898-3	OB-20A-081816	Total/NA	Water	8270D SIM	386330
460-118898-4	OB-6-081816	Total/NA	Water	8270D SIM	386330

GC/MS Semi VOA (Continued)

Analysis Batch: 387556 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-5	OB-21-081816	Total/NA	Water	8270D SIM	386330
460-118898-6	Dup-02-081816	Total/NA	Water	8270D SIM	386330
460-118898-10	OB-20B-081816	Total/NA	Water	8270D SIM	386330
460-118898-11	RW-6A-081816	Total/NA	Water	8270D SIM	386330
460-118898-12	RW-5A-081816	Total/NA	Water	8270D SIM	386330
460-118898-13	OB-7-081816	Total/NA	Water	8270D SIM	386330
MB 460-386330/1-A	Method Blank	Total/NA	Water	8270D SIM	386330
LCS 460-386330/4-A	Lab Control Sample	Total/NA	Water	8270D SIM	386330

Analysis Batch: 387794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-7	RW-6-081816	Total/NA	Water	8270D SIM	386330
460-118898-8	RW-7-081816	Total/NA	Water	8270D SIM	386330
460-118898-9	OB-5-081816	Total/NA	Water	8270D SIM	386330
460-118898-14	OB-25-081816	Total/NA	Water	8270D SIM	386330
460-118898-15	RW-5-081816	Total/NA	Water	8270D SIM	386330

GC Semi VOA

Prep Batch: 386385

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Total/NA	Water	3510C	
460-118898-3	OB-20A-081816	Total/NA	Water	3510C	
460-118898-4	OB-6-081816	Total/NA	Water	3510C	
460-118898-5	OB-21-081816	Total/NA	Water	3510C	
MB 460-386385/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-386385/2-A	Lab Control Sample	Total/NA	Water	3510C	
460-118898-4 MS	OB-6-081816	Total/NA	Water	3510C	
460-118898-4 MSD	OB-6-081816	Total/NA	Water	3510C	

Analysis Batch: 386462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Total/NA	Water	8082A	386385
460-118898-3	OB-20A-081816	Total/NA	Water	8082A	386385
460-118898-4	OB-6-081816	Total/NA	Water	8082A	386385
460-118898-5	OB-21-081816	Total/NA	Water	8082A	386385
MB 460-386385/1-A	Method Blank	Total/NA	Water	8082A	386385
LCS 460-386385/2-A	Lab Control Sample	Total/NA	Water	8082A	386385
460-118898-4 MS	OB-6-081816	Total/NA	Water	8082A	386385
460-118898-4 MSD	OB-6-081816	Total/NA	Water	8082A	386385

Prep Batch: 386469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-6	Dup-02-081816	Total/NA	Water	3510C	
460-118898-7	RW-6-081816	Total/NA	Water	3510C	
460-118898-8	RW-7-081816	Total/NA	Water	3510C	
460-118898-9	OB-5-081816	Total/NA	Water	3510C	
460-118898-10	OB-20B-081816	Total/NA	Water	3510C	
460-118898-11	RW-6A-081816	Total/NA	Water	3510C	
460-118898-12	RW-5A-081816	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 386469 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-13	OB-7-081816	Total/NA	Water	3510C	
460-118898-14	OB-25-081816	Total/NA	Water	3510C	
MB 460-386469/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-386469/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-386469/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 386623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-15	RW-5-081816	Total/NA	Water	3510C	
MB 460-386623/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-386623/2-A	Lab Control Sample	Total/NA	Water	3510C	
460-118951-J-4-B MS	Matrix Spike	Total/NA	Water	3510C	
460-118951-L-4-A MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 386701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-15	RW-5-081816	Total/NA	Water	8082A	386623
MB 460-386623/1-A	Method Blank	Total/NA	Water	8082A	386623
LCS 460-386623/2-A	Lab Control Sample	Total/NA	Water	8082A	386623
460-118951-J-4-B MS	Matrix Spike	Total/NA	Water	8082A	386623
460-118951-L-4-A MSD	Matrix Spike Duplicate	Total/NA	Water	8082A	386623

Analysis Batch: 386789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-6	Dup-02-081816	Total/NA	Water	8082A	386469
460-118898-8	RW-7-081816	Total/NA	Water	8082A	386469
460-118898-10	OB-20B-081816	Total/NA	Water	8082A	386469
460-118898-11	RW-6A-081816	Total/NA	Water	8082A	386469
460-118898-12	RW-5A-081816	Total/NA	Water	8082A	386469
460-118898-13	OB-7-081816	Total/NA	Water	8082A	386469
460-118898-14	OB-25-081816	Total/NA	Water	8082A	386469
MB 460-386469/1-A	Method Blank	Total/NA	Water	8082A	386469
LCS 460-386469/2-A	Lab Control Sample	Total/NA	Water	8082A	386469
LCSD 460-386469/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	386469

Analysis Batch: 386921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-7	RW-6-081816	Total/NA	Water	8082A	386469
460-118898-9	OB-5-081816	Total/NA	Water	8082A	386469

HPLC/IC

Analysis Batch: 386092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Total/NA	Water	9056A	
460-118898-3	OB-20A-081816	Total/NA	Water	9056A	
460-118898-4	OB-6-081816	Total/NA	Water	9056A	
460-118898-4 - DL	OB-6-081816	Total/NA	Water	9056A	
460-118898-5	OB-21-081816	Total/NA	Water	9056A	
460-118898-6	Dup-02-081816	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 386092 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-7	RW-6-081816	Total/NA	Water	9056A	
460-118898-8	RW-7-081816	Total/NA	Water	9056A	
460-118898-9	OB-5-081816	Total/NA	Water	9056A	
460-118898-10	OB-20B-081816	Total/NA	Water	9056A	
460-118898-11	RW-6A-081816	Total/NA	Water	9056A	
460-118898-12	RW-5A-081816	Total/NA	Water	9056A	
460-118898-13	OB-7-081816	Total/NA	Water	9056A	
460-118898-14	OB-25-081816	Total/NA	Water	9056A	
460-118898-15	RW-5-081816	Total/NA	Water	9056A	
MB 460-386092/3	Method Blank	Total/NA	Water	9056A	
LCS 460-386092/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-386092/6	Lab Control Sample Dup	Total/NA	Water	9056A	
460-118898-4 MS	OB-6-081816	Total/NA	Water	9056A	
460-118898-4 MS - DL	OB-6-081816	Total/NA	Water	9056A	
460-118898-4 MSD	OB-6-081816	Total/NA	Water	9056A	
460-118898-4 MSD - DL	OB-6-081816	Total/NA	Water	9056A	
460-118898-4 DU	OB-6-081816	Total/NA	Water	9056A	

Analysis Batch: 386479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-14 - DL2	OB-25-081816	Total/NA	Water	9056A	
MB 460-386479/3	Method Blank	Total/NA	Water	9056A	
LCS 460-386479/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-386479/6	Lab Control Sample Dup	Total/NA	Water	9056A	
460-118898-14 MS	OB-25-081816	Total/NA	Water	9056A	
460-118898-14 MSD	OB-25-081816	Total/NA	Water	9056A	

Analysis Batch: 387602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-3 - DL	OB-20A-081816	Total/NA	Water	9056A	
460-118898-7 - DL	RW-6-081816	Total/NA	Water	9056A	
460-118898-10 - DL	OB-20B-081816	Total/NA	Water	9056A	
460-118898-11 - DL	RW-6A-081816	Total/NA	Water	9056A	
460-118898-12 - DL	RW-5A-081816	Total/NA	Water	9056A	
460-118898-13 - DL	OB-7-081816	Total/NA	Water	9056A	
MB 460-387602/3	Method Blank	Total/NA	Water	9056A	
LCS 460-387602/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-387602/5	Lab Control Sample Dup	Total/NA	Water	9056A	
460-119025-M-3 MS	Matrix Spike	Total/NA	Water	9056A	
460-119025-M-3 MSD	Matrix Spike Duplicate	Total/NA	Water	9056A	
460-119025-M-3 DU	Duplicate	Total/NA	Water	9056A	

Analysis Batch: 387892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-9 - DL	OB-5-081816	Total/NA	Water	9056A	
MB 460-387892/3	Method Blank	Total/NA	Water	9056A	
LCS 460-387892/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-387892/6	Lab Control Sample Dup	Total/NA	Water	9056A	
460-118898-9 MS	OB-5-081816	Total/NA	Water	9056A	
460-118898-9 MSD	OB-5-081816	Total/NA	Water	9056A	

Metals

Prep Batch: 386526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Total/NA	Water	7470A	
460-118898-3	OB-20A-081816	Total/NA	Water	7470A	
460-118898-4	OB-6-081816	Total/NA	Water	7470A	
460-118898-5	OB-21-081816	Total/NA	Water	7470A	
460-118898-6	Dup-02-081816	Total/NA	Water	7470A	
460-118898-7	RW-6-081816	Total/NA	Water	7470A	
460-118898-8	RW-7-081816	Total/NA	Water	7470A	
460-118898-9	OB-5-081816	Total/NA	Water	7470A	
460-118898-10	OB-20B-081816	Total/NA	Water	7470A	
460-118898-11	RW-6A-081816	Total/NA	Water	7470A	
460-118898-12	RW-5A-081816	Total/NA	Water	7470A	
460-118898-13	OB-7-081816	Total/NA	Water	7470A	
460-118898-14	OB-25-081816	Total/NA	Water	7470A	
460-118898-15	RW-5-081816	Total/NA	Water	7470A	
MB 460-386526/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-386526/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-118898-4 MS	OB-6-081816	Total/NA	Water	7470A	
460-118898-4 DU	OB-6-081816	Total/NA	Water	7470A	

Analysis Batch: 386593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Total/NA	Water	7470A	386526
460-118898-3	OB-20A-081816	Total/NA	Water	7470A	386526
460-118898-4	OB-6-081816	Total/NA	Water	7470A	386526
460-118898-5	OB-21-081816	Total/NA	Water	7470A	386526
460-118898-6	Dup-02-081816	Total/NA	Water	7470A	386526
460-118898-7	RW-6-081816	Total/NA	Water	7470A	386526
460-118898-8	RW-7-081816	Total/NA	Water	7470A	386526
460-118898-9	OB-5-081816	Total/NA	Water	7470A	386526
460-118898-10	OB-20B-081816	Total/NA	Water	7470A	386526
460-118898-11	RW-6A-081816	Total/NA	Water	7470A	386526
460-118898-12	RW-5A-081816	Total/NA	Water	7470A	386526
460-118898-13	OB-7-081816	Total/NA	Water	7470A	386526
460-118898-14	OB-25-081816	Total/NA	Water	7470A	386526
460-118898-15	RW-5-081816	Total/NA	Water	7470A	386526
MB 460-386526/1-A	Method Blank	Total/NA	Water	7470A	386526
LCS 460-386526/2-A	Lab Control Sample	Total/NA	Water	7470A	386526
460-118898-4 MS	OB-6-081816	Total/NA	Water	7470A	386526
460-118898-4 DU	OB-6-081816	Total/NA	Water	7470A	386526

Filtration Batch: 386975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-3	OB-20A-081816	Dissolved	Water	FILTRATION	
460-118898-4	OB-6-081816	Dissolved	Water	FILTRATION	
460-118898-5	OB-21-081816	Dissolved	Water	FILTRATION	
460-118898-6	Dup-02-081816	Dissolved	Water	FILTRATION	
460-118898-7	RW-6-081816	Dissolved	Water	FILTRATION	
460-118898-8	RW-7-081816	Dissolved	Water	FILTRATION	
MB 460-386975/1-B	Method Blank	Dissolved	Water	FILTRATION	
460-118898-4 MS	OB-6-081816	Dissolved	Water	FILTRATION	
460-118898-4 DU	OB-6-081816	Dissolved	Water	FILTRATION	

QC Association Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Prep Batch: 386977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-3	OB-20A-081816	Dissolved	Water	7470A	386975
460-118898-4	OB-6-081816	Dissolved	Water	7470A	386975
460-118898-5	OB-21-081816	Dissolved	Water	7470A	386975
460-118898-6	Dup-02-081816	Dissolved	Water	7470A	386975
460-118898-7	RW-6-081816	Dissolved	Water	7470A	386975
460-118898-8	RW-7-081816	Dissolved	Water	7470A	386975
MB 460-386975/1-B	Method Blank	Dissolved	Water	7470A	386975
LCS 460-386977/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-118898-4 MS	OB-6-081816	Dissolved	Water	7470A	386975
460-118898-4 DU	OB-6-081816	Dissolved	Water	7470A	386975

Analysis Batch: 387030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-3	OB-20A-081816	Dissolved	Water	7470A	386977
460-118898-4	OB-6-081816	Dissolved	Water	7470A	386977
460-118898-5	OB-21-081816	Dissolved	Water	7470A	386977
460-118898-6	Dup-02-081816	Dissolved	Water	7470A	386977
460-118898-7	RW-6-081816	Dissolved	Water	7470A	386977
460-118898-8	RW-7-081816	Dissolved	Water	7470A	386977
MB 460-386975/1-B	Method Blank	Dissolved	Water	7470A	386977
LCS 460-386977/2-A	Lab Control Sample	Total/NA	Water	7470A	386977
460-118898-4 MS	OB-6-081816	Dissolved	Water	7470A	386977
460-118898-4 DU	OB-6-081816	Dissolved	Water	7470A	386977

Prep Batch: 387090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Total/NA	Water	3010A	
460-118898-3	OB-20A-081816	Total/NA	Water	3010A	
460-118898-4	OB-6-081816	Total/NA	Water	3010A	
460-118898-5	OB-21-081816	Total/NA	Water	3010A	
MB 460-387090/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-387090/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-118898-4 MS	OB-6-081816	Total/NA	Water	3010A	
460-118898-4 DU	OB-6-081816	Total/NA	Water	3010A	

Prep Batch: 387091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-6	Dup-02-081816	Total/NA	Water	3010A	
460-118898-7	RW-6-081816	Total/NA	Water	3010A	
460-118898-8	RW-7-081816	Total/NA	Water	3010A	
460-118898-9	OB-5-081816	Total/NA	Water	3010A	
460-118898-10	OB-20B-081816	Total/NA	Water	3010A	
460-118898-11	RW-6A-081816	Total/NA	Water	3010A	
460-118898-12	RW-5A-081816	Total/NA	Water	3010A	
460-118898-13	OB-7-081816	Total/NA	Water	3010A	
460-118898-14	OB-25-081816	Total/NA	Water	3010A	
460-118898-15	RW-5-081816	Total/NA	Water	3010A	
MB 460-387091/1-A	Method Blank	Total/NA	Water	3010A	
MB 460-387091/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-387091/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCS 460-387091/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-118951-G-4-D MS ^2	Matrix Spike	Total/NA	Water	3010A	
460-118951-A-4-B DU ^2	Duplicate	Total/NA	Water	3010A	

QC Association Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Analysis Batch: 387280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Total/NA	Water	6020A	387090
460-118898-3	OB-20A-081816	Total/NA	Water	6020A	387090
460-118898-4	OB-6-081816	Total/NA	Water	6020A	387090
460-118898-5	OB-21-081816	Total/NA	Water	6020A	387090
MB 460-387090/1-A ^2	Method Blank	Total/NA	Water	6020A	387090
LCS 460-387090/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387090
460-118898-4 MS	OB-6-081816	Total/NA	Water	6020A	387090
460-118898-4 DU	OB-6-081816	Total/NA	Water	6020A	387090

Filtration Batch: 387390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Dissolved	Water	FILTRATION	
460-118898-3	OB-20A-081816	Dissolved	Water	FILTRATION	
460-118898-4	OB-6-081816	Dissolved	Water	FILTRATION	
460-118898-5	OB-21-081816	Dissolved	Water	FILTRATION	
460-118898-6	Dup-02-081816	Dissolved	Water	FILTRATION	
460-118898-7	RW-6-081816	Dissolved	Water	FILTRATION	
460-118898-8	RW-7-081816	Dissolved	Water	FILTRATION	
460-118898-9	OB-5-081816	Dissolved	Water	FILTRATION	
460-118898-10	OB-20B-081816	Dissolved	Water	FILTRATION	
460-118898-11	RW-6A-081816	Dissolved	Water	FILTRATION	
460-118898-12	RW-5A-081816	Dissolved	Water	FILTRATION	
460-118898-13	OB-7-081816	Dissolved	Water	FILTRATION	
460-118898-14	OB-25-081816	Dissolved	Water	FILTRATION	
460-118898-15	RW-5-081816	Dissolved	Water	FILTRATION	
MB 460-387390/1-B	Method Blank	Dissolved	Water	FILTRATION	
MB 460-387390/1-B ^2	Method Blank	Dissolved	Water	FILTRATION	
460-118898-4 MS	OB-6-081816	Dissolved	Water	FILTRATION	
460-118898-4 DU	OB-6-081816	Dissolved	Water	FILTRATION	

Analysis Batch: 387394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-6	Dup-02-081816	Total/NA	Water	6020A	387091
460-118898-7	RW-6-081816	Total/NA	Water	6020A	387091
460-118898-8	RW-7-081816	Total/NA	Water	6020A	387091
460-118898-9	OB-5-081816	Total/NA	Water	6020A	387091
460-118898-10	OB-20B-081816	Total/NA	Water	6020A	387091
460-118898-11	RW-6A-081816	Total/NA	Water	6020A	387091
460-118898-12	RW-5A-081816	Total/NA	Water	6020A	387091
460-118898-13	OB-7-081816	Total/NA	Water	6020A	387091
460-118898-14	OB-25-081816	Total/NA	Water	6020A	387091
460-118898-15	RW-5-081816	Total/NA	Water	6020A	387091
MB 460-387091/1-A ^2	Method Blank	Total/NA	Water	6020A	387091
LCS 460-387091/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387091
460-118951-G-4-D MS ^2	Matrix Spike	Total/NA	Water	6020A	387091
460-118951-A-4-B DU ^2	Duplicate	Total/NA	Water	6020A	387091

Prep Batch: 387404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Dissolved	Water	3010A	387390
460-118898-3	OB-20A-081816	Dissolved	Water	3010A	387390
460-118898-4	OB-6-081816	Dissolved	Water	3010A	387390
460-118898-5	OB-21-081816	Dissolved	Water	3010A	387390

Metals (Continued)

Prep Batch: 387404 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-6	Dup-02-081816	Dissolved	Water	3010A	387390
460-118898-7	RW-6-081816	Dissolved	Water	3010A	387390
460-118898-8	RW-7-081816	Dissolved	Water	3010A	387390
460-118898-9	OB-5-081816	Dissolved	Water	3010A	387390
460-118898-10	OB-20B-081816	Dissolved	Water	3010A	387390
460-118898-11	RW-6A-081816	Dissolved	Water	3010A	387390
460-118898-12	RW-5A-081816	Dissolved	Water	3010A	387390
460-118898-13	OB-7-081816	Dissolved	Water	3010A	387390
460-118898-14	OB-25-081816	Dissolved	Water	3010A	387390
460-118898-15	RW-5-081816	Dissolved	Water	3010A	387390
MB 460-387390/1-B	Method Blank	Dissolved	Water	3010A	387390
MB 460-387390/1-B ^2	Method Blank	Dissolved	Water	3010A	387390
LCS 460-387404/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCS 460-387404/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-118898-4 MS	OB-6-081816	Dissolved	Water	3010A	387390
460-118898-4 DU	OB-6-081816	Dissolved	Water	3010A	387390

Prep Batch: 387416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Dissolved	Water	7470A	387417
460-118898-9	OB-5-081816	Dissolved	Water	7470A	387417
460-118898-10	OB-20B-081816	Dissolved	Water	7470A	387417
460-118898-11	RW-6A-081816	Dissolved	Water	7470A	387417
460-118898-12	RW-5A-081816	Dissolved	Water	7470A	387417
460-118898-13	OB-7-081816	Dissolved	Water	7470A	387417
460-118898-14	OB-25-081816	Dissolved	Water	7470A	387417
460-118898-15	RW-5-081816	Dissolved	Water	7470A	387417
MB 460-387417/1-B	Method Blank	Dissolved	Water	7470A	387417
LCS 460-387416/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-118951-H-4-D MS	Matrix Spike	Dissolved	Water	7470A	387417
460-118951-B-4-B DU	Duplicate	Dissolved	Water	7470A	387417

Filtration Batch: 387417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Dissolved	Water	FILTRATION	
460-118898-9	OB-5-081816	Dissolved	Water	FILTRATION	
460-118898-10	OB-20B-081816	Dissolved	Water	FILTRATION	
460-118898-11	RW-6A-081816	Dissolved	Water	FILTRATION	
460-118898-12	RW-5A-081816	Dissolved	Water	FILTRATION	
460-118898-13	OB-7-081816	Dissolved	Water	FILTRATION	
460-118898-14	OB-25-081816	Dissolved	Water	FILTRATION	
460-118898-15	RW-5-081816	Dissolved	Water	FILTRATION	
MB 460-387417/1-B	Method Blank	Dissolved	Water	FILTRATION	
460-118951-H-4-D MS	Matrix Spike	Dissolved	Water	FILTRATION	
460-118951-B-4-B DU	Duplicate	Dissolved	Water	FILTRATION	

Analysis Batch: 387486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Dissolved	Water	7470A	387416
460-118898-9	OB-5-081816	Dissolved	Water	7470A	387416
460-118898-10	OB-20B-081816	Dissolved	Water	7470A	387416

Metals (Continued)

Analysis Batch: 387486 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-11	RW-6A-081816	Dissolved	Water	7470A	387416
460-118898-12	RW-5A-081816	Dissolved	Water	7470A	387416
460-118898-13	OB-7-081816	Dissolved	Water	7470A	387416
460-118898-14	OB-25-081816	Dissolved	Water	7470A	387416
460-118898-15	RW-5-081816	Dissolved	Water	7470A	387416
MB 460-387417/1-B	Method Blank	Dissolved	Water	7470A	387416
LCS 460-387416/2-A	Lab Control Sample	Total/NA	Water	7470A	387416
460-118951-H-4-D MS	Matrix Spike	Dissolved	Water	7470A	387416
460-118951-B-4-B DU	Duplicate	Dissolved	Water	7470A	387416

Analysis Batch: 387675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Dissolved	Water	6020A	387404
460-118898-3	OB-20A-081816	Dissolved	Water	6020A	387404
460-118898-4	OB-6-081816	Dissolved	Water	6020A	387404
460-118898-5	OB-21-081816	Dissolved	Water	6020A	387404
460-118898-6	Dup-02-081816	Dissolved	Water	6020A	387404
460-118898-7	RW-6-081816	Dissolved	Water	6020A	387404
460-118898-8	RW-7-081816	Dissolved	Water	6020A	387404
460-118898-9	OB-5-081816	Dissolved	Water	6020A	387404
460-118898-10	OB-20B-081816	Dissolved	Water	6020A	387404
460-118898-11	RW-6A-081816	Dissolved	Water	6020A	387404
460-118898-12	RW-5A-081816	Dissolved	Water	6020A	387404
460-118898-13	OB-7-081816	Dissolved	Water	6020A	387404
460-118898-14	OB-25-081816	Dissolved	Water	6020A	387404
460-118898-15	RW-5-081816	Dissolved	Water	6020A	387404
MB 460-387390/1-B ^2	Method Blank	Dissolved	Water	6020A	387404
LCS 460-387404/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387404
460-118898-4 MS	OB-6-081816	Dissolved	Water	6020A	387404
460-118898-4 DU	OB-6-081816	Dissolved	Water	6020A	387404

Analysis Batch: 387734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-6	Dup-02-081816	Total/NA	Water	6020A	387091
460-118898-7	RW-6-081816	Total/NA	Water	6020A	387091
460-118898-8	RW-7-081816	Total/NA	Water	6020A	387091
460-118898-9	OB-5-081816	Total/NA	Water	6020A	387091
460-118898-10	OB-20B-081816	Total/NA	Water	6020A	387091
460-118898-11	RW-6A-081816	Total/NA	Water	6020A	387091
460-118898-12	RW-5A-081816	Total/NA	Water	6020A	387091
460-118898-13	OB-7-081816	Total/NA	Water	6020A	387091
460-118898-14	OB-25-081816	Total/NA	Water	6020A	387091
460-118898-15	RW-5-081816	Total/NA	Water	6020A	387091
MB 460-387091/1-A	Method Blank	Total/NA	Water	6020A	387091
LCS 460-387091/2-A	Lab Control Sample	Total/NA	Water	6020A	387091

Analysis Batch: 388143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Dissolved	Water	6020A	387404
460-118898-3	OB-20A-081816	Dissolved	Water	6020A	387404
460-118898-4	OB-6-081816	Dissolved	Water	6020A	387404

Metals (Continued)

Analysis Batch: 388143 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-5	OB-21-081816	Dissolved	Water	6020A	387404
460-118898-6	Dup-02-081816	Dissolved	Water	6020A	387404
460-118898-7	RW-6-081816	Dissolved	Water	6020A	387404
460-118898-8	RW-7-081816	Dissolved	Water	6020A	387404
460-118898-9	OB-5-081816	Dissolved	Water	6020A	387404
460-118898-10	OB-20B-081816	Dissolved	Water	6020A	387404
460-118898-11	RW-6A-081816	Dissolved	Water	6020A	387404
460-118898-12	RW-5A-081816	Dissolved	Water	6020A	387404
460-118898-13	OB-7-081816	Dissolved	Water	6020A	387404
460-118898-14	OB-25-081816	Dissolved	Water	6020A	387404
460-118898-15	RW-5-081816	Dissolved	Water	6020A	387404
MB 460-387390/1-B	Method Blank	Dissolved	Water	6020A	387404
LCS 460-387404/2-A	Lab Control Sample	Total/NA	Water	6020A	387404
460-118898-4 MS	OB-6-081816	Dissolved	Water	6020A	387404
460-118898-4 DU	OB-6-081816	Dissolved	Water	6020A	387404

General Chemistry

Prep Batch: 387409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-3	OB-20A-081816	Total/NA	Water	9012B	
460-118898-4	OB-6-081816	Total/NA	Water	9012B	
460-118898-5	OB-21-081816	Total/NA	Water	9012B	
460-118898-6	Dup-02-081816	Total/NA	Water	9012B	
460-118898-7	RW-6-081816	Total/NA	Water	9012B	
460-118898-8	RW-7-081816	Total/NA	Water	9012B	
460-118898-9	OB-5-081816	Total/NA	Water	9012B	
460-118898-10	OB-20B-081816	Total/NA	Water	9012B	
460-118898-11	RW-6A-081816	Total/NA	Water	9012B	
460-118898-12	RW-5A-081816	Total/NA	Water	9012B	
460-118898-13	OB-7-081816	Total/NA	Water	9012B	
460-118898-14	OB-25-081816	Total/NA	Water	9012B	
460-118898-15	RW-5-081816	Total/NA	Water	9012B	
MB 460-387409/1-A	Method Blank	Total/NA	Water	9012B	
HLCS 460-387409/3-A	Lab Control Sample	Total/NA	Water	9012B	
LLCS 460-387409/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-118898-4 MS	OB-6-081816	Total/NA	Water	9012B	
460-118898-4 MSD	OB-6-081816	Total/NA	Water	9012B	
460-118898-13 MS	OB-7-081816	Total/NA	Water	9012B	
460-118898-13 MSD	OB-7-081816	Total/NA	Water	9012B	

Analysis Batch: 387474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-3	OB-20A-081816	Total/NA	Water	9012B	387409
460-118898-4	OB-6-081816	Total/NA	Water	9012B	387409
460-118898-5	OB-21-081816	Total/NA	Water	9012B	387409
460-118898-6	Dup-02-081816	Total/NA	Water	9012B	387409
460-118898-7	RW-6-081816	Total/NA	Water	9012B	387409
460-118898-8	RW-7-081816	Total/NA	Water	9012B	387409
460-118898-9	OB-5-081816	Total/NA	Water	9012B	387409

General Chemistry (Continued)

Analysis Batch: 387474 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-10	OB-20B-081816	Total/NA	Water	9012B	387409
460-118898-11	RW-6A-081816	Total/NA	Water	9012B	387409
460-118898-12	RW-5A-081816	Total/NA	Water	9012B	387409
460-118898-13	OB-7-081816	Total/NA	Water	9012B	387409
460-118898-14	OB-25-081816	Total/NA	Water	9012B	387409
460-118898-15	RW-5-081816	Total/NA	Water	9012B	387409
MB 460-387409/1-A	Method Blank	Total/NA	Water	9012B	387409
HLCS 460-387409/3-A	Lab Control Sample	Total/NA	Water	9012B	387409
LLCS 460-387409/2-A	Lab Control Sample	Total/NA	Water	9012B	387409
460-118898-4 MS	OB-6-081816	Total/NA	Water	9012B	387409
460-118898-4 MSD	OB-6-081816	Total/NA	Water	9012B	387409
460-118898-13 MS	OB-7-081816	Total/NA	Water	9012B	387409
460-118898-13 MSD	OB-7-081816	Total/NA	Water	9012B	387409

Analysis Batch: 387653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-2	FB-02-081816	Total/NA	Water	SM 2320B	
460-118898-3	OB-20A-081816	Total/NA	Water	SM 2320B	
460-118898-4	OB-6-081816	Total/NA	Water	SM 2320B	
460-118898-5	OB-21-081816	Total/NA	Water	SM 2320B	
460-118898-6	Dup-02-081816	Total/NA	Water	SM 2320B	
MB 460-387653/1	Method Blank	Total/NA	Water	SM 2320B	
LCSSRM 460-387653/2	Lab Control Sample	Total/NA	Water	SM 2320B	
460-118898-4 DU	OB-6-081816	Total/NA	Water	SM 2320B	

Analysis Batch: 388178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118898-7	RW-6-081816	Total/NA	Water	SM 2320B	
460-118898-8	RW-7-081816	Total/NA	Water	SM 2320B	
460-118898-9	OB-5-081816	Total/NA	Water	SM 2320B	
460-118898-10	OB-20B-081816	Total/NA	Water	SM 2320B	
460-118898-11	RW-6A-081816	Total/NA	Water	SM 2320B	
460-118898-12	RW-5A-081816	Total/NA	Water	SM 2320B	
460-118898-13	OB-7-081816	Total/NA	Water	SM 2320B	
460-118898-14	OB-25-081816	Total/NA	Water	SM 2320B	
460-118898-15	RW-5-081816	Total/NA	Water	SM 2320B	
MB 460-388178/1	Method Blank	Total/NA	Water	SM 2320B	
LCSSRM 460-388178/2	Lab Control Sample	Total/NA	Water	SM 2320B	
460-118898-14 DU	OB-25-081816	Total/NA	Water	SM 2320B	

Client Sample ID: TB-03-081816

Lab Sample ID: 460-118898-1

Date Collected: 08/18/16 00:00

Matrix: Water

Date Received: 08/19/16 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386495	08/24/16 13:18	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386497	08/24/16 13:34	AAT	TAL EDI

Client Sample ID: FB-02-081816

Lab Sample ID: 460-118898-2

Date Collected: 08/18/16 08:30

Matrix: Water

Date Received: 08/19/16 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386495	08/24/16 13:45	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386497	08/24/16 13:59	AAT	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387265	08/28/16 11:53	MMC	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387556	08/30/16 19:30	MMC	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386462	08/24/16 14:55	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386092	08/22/16 18:08	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387675	08/29/16 15:09	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388143	09/01/16 09:16	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 20:28	PHP	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:00	RBS	TAL EDI
Total/NA	Prep	7470A			386526	08/24/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386593	08/24/16 14:17	RBS	TAL EDI
Total/NA	Analysis	SM 2320B		1	387653	08/30/16 10:00	IAA	TAL EDI

Client Sample ID: OB-20A-081816

Lab Sample ID: 460-118898-3

Date Collected: 08/18/16 09:55

Matrix: Water

Date Received: 08/19/16 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386495	08/24/16 15:05	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386497	08/24/16 14:49	AAT	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387265	08/28/16 12:14	MMC	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387556	08/30/16 17:00	MMC	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386462	08/24/16 15:12	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386092	08/22/16 18:26	FPO	TAL EDI
Total/NA	Analysis	9056A	DL	10	387602	08/30/16 16:30	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387675	08/29/16 15:15	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388143	09/01/16 09:22	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 20:31	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 15:24	RBS	TAL EDI
Total/NA	Prep	7470A			386526	08/24/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386593	08/24/16 14:19	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:34	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	387653	08/30/16 10:00	IAA	TAL EDI

Client Sample ID: OB-6-081816

Date Collected: 08/18/16 10:20
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386495	08/24/16 14:12	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386497	08/24/16 16:55	AAT	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387265	08/28/16 11:31	MMC	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387556	08/30/16 16:01	MMC	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386462	08/24/16 08:43	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386092	08/22/16 18:45	FPO	TAL EDI
Total/NA	Analysis	9056A	DL	5	386092	08/23/16 10:56	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387675	08/29/16 14:58	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388143	09/01/16 09:04	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 19:06	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 14:43	RBS	TAL EDI
Total/NA	Prep	7470A			386526	08/24/16 11:57	RBS	TAL EDI

Client Sample ID: OB-6-081816

Lab Sample ID: 460-118898-4

Date Collected: 08/18/16 10:20

Matrix: Water

Date Received: 08/19/16 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	386593	08/24/16 13:56	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:32	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	387653	08/30/16 10:00	IAA	TAL EDI

Client Sample ID: OB-21-081816

Lab Sample ID: 460-118898-5

Date Collected: 08/18/16 10:30

Matrix: Water

Date Received: 08/19/16 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386495	08/24/16 17:20	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386497	08/24/16 17:20	AAT	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387265	08/28/16 12:35	MMC	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387556	08/30/16 17:29	MMC	TAL EDI
Total/NA	Prep	3510C			386385	08/23/16 19:58	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386462	08/24/16 15:27	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386092	08/22/16 19:03	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387675	08/29/16 15:21	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388143	09/01/16 09:28	VAD	TAL EDI
Total/NA	Prep	3010A			387090	08/26/16 20:30	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387280	08/27/16 20:34	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 15:26	RBS	TAL EDI
Total/NA	Prep	7470A			386526	08/24/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386593	08/24/16 14:21	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:35	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	387653	08/30/16 10:00	IAA	TAL EDI

Client Sample ID: Dup-02-081816

Lab Sample ID: 460-118898-6

Date Collected: 08/18/16 12:00

Matrix: Water

Date Received: 08/19/16 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386495	08/24/16 17:47	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386497	08/24/16 17:45	AAT	TAL EDI

Client Sample ID: Dup-02-081816

Lab Sample ID: 460-118898-6

Date Collected: 08/18/16 12:00

Matrix: Water

Date Received: 08/19/16 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387265	08/28/16 12:56	MMC	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387556	08/30/16 17:58	MMC	TAL EDI
Total/NA	Prep	3510C			386469	08/24/16 07:49	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386789	08/25/16 19:13	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386092	08/22/16 19:21	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387675	08/29/16 15:26	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388143	09/01/16 09:33	VAD	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 19:43	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 19:33	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 15:28	RBS	TAL EDI
Total/NA	Prep	7470A			386526	08/24/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386593	08/24/16 14:23	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:36	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	387653	08/30/16 10:00	IAA	TAL EDI

Client Sample ID: RW-6-081816

Lab Sample ID: 460-118898-7

Date Collected: 08/18/16 11:20

Matrix: Water

Date Received: 08/19/16 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386495	08/24/16 18:14	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386497	08/24/16 15:15	AAT	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387265	08/28/16 13:17	MMC	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 11:06	MMC	TAL EDI
Total/NA	Prep	3510C			386469	08/24/16 07:49	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386921	08/26/16 08:29	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386092	08/22/16 19:39	FPO	TAL EDI
Total/NA	Analysis	9056A	DL	10	387602	08/30/16 17:24	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI

Client Sample ID: RW-6-081816

Date Collected: 08/18/16 11:20
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	6020A		2	387675	08/29/16 15:48	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388143	09/01/16 09:57	VAD	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 20:17	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 19:46	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 15:30	RBS	TAL EDI
Total/NA	Prep	7470A			386526	08/24/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386593	08/24/16 14:24	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:40	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	388178	09/01/16 12:00	IAA	TAL EDI

Client Sample ID: RW-7-081816

Date Collected: 08/18/16 12:20
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386495	08/24/16 18:41	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386497	08/24/16 18:10	AAT	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387265	08/28/16 13:39	MMC	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 11:35	MMC	TAL EDI
Total/NA	Prep	3510C			386469	08/24/16 07:49	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386789	08/25/16 19:49	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386092	08/22/16 19:58	FPO	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387675	08/29/16 15:54	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388143	09/01/16 10:03	VAD	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 19:49	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 19:36	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			386975	08/26/16 12:09	RBS	TAL EDI
Dissolved	Prep	7470A			386977	08/26/16 12:16	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387030	08/26/16 15:31	RBS	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			386526	08/24/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386593	08/24/16 14:26	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:41	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	388178	09/01/16 12:00	IAA	TAL EDI

Client Sample ID: OB-5-081816

Lab Sample ID: 460-118898-9

Date Collected: 08/18/16 12:40

Matrix: Water

Date Received: 08/19/16 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386495	08/24/16 19:08	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386497	08/24/16 18:35	AAT	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387265	08/28/16 14:00	MMC	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 12:04	MMC	TAL EDI
Total/NA	Prep	3510C			386469	08/24/16 07:49	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386921	08/26/16 08:47	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386092	08/22/16 20:16	FPO	TAL EDI
Total/NA	Analysis	9056A	DL	50	387892	08/31/16 14:04	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387675	08/29/16 16:00	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388143	09/01/16 10:08	VAD	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 20:22	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 19:51	PHP	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:02	RBS	TAL EDI
Total/NA	Prep	7470A			386526	08/24/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386593	08/24/16 14:28	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:42	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	388178	09/01/16 12:00	IAA	TAL EDI

Client Sample ID: OB-20B-081816

Lab Sample ID: 460-118898-10

Date Collected: 08/18/16 12:50

Matrix: Water

Date Received: 08/19/16 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386495	08/24/16 19:35	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386497	08/24/16 15:40	AAT	TAL EDI

Client Sample ID: OB-20B-081816

Date Collected: 08/18/16 12:50
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387265	08/28/16 14:21	MMC	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387556	08/30/16 19:59	MMC	TAL EDI
Total/NA	Prep	3510C			386469	08/24/16 07:49	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386789	08/25/16 20:25	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386092	08/22/16 20:34	FPO	TAL EDI
Total/NA	Analysis	9056A	DL	10	387602	08/30/16 18:01	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387675	08/29/16 16:05	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388143	09/01/16 10:14	VAD	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 20:28	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 19:54	PHP	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:04	RBS	TAL EDI
Total/NA	Prep	7470A			386526	08/24/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386593	08/24/16 14:34	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:43	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	388178	09/01/16 12:00	IAA	TAL EDI

Client Sample ID: RW-6A-081816

Date Collected: 08/18/16 14:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386495	08/24/16 20:02	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386497	08/24/16 16:05	AAT	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387265	08/28/16 14:42	MMC	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387556	08/30/16 20:27	MMC	TAL EDI
Total/NA	Prep	3510C			386469	08/24/16 07:49	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386789	08/25/16 20:43	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386092	08/22/16 22:42	FPO	TAL EDI
Total/NA	Analysis	9056A	DL	10	387602	08/30/16 20:09	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI

Client Sample ID: RW-6A-081816

Lab Sample ID: 460-118898-11

Date Collected: 08/18/16 14:30

Matrix: Water

Date Received: 08/19/16 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387675	08/29/16 16:11	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388143	09/01/16 10:20	VAD	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 20:34	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 19:59	PHP	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:06	RBS	TAL EDI
Total/NA	Prep	7470A			386526	08/24/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386593	08/24/16 14:36	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:44	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	388178	09/01/16 12:00	IAA	TAL EDI

Client Sample ID: RW-5A-081816

Lab Sample ID: 460-118898-12

Date Collected: 08/18/16 14:45

Matrix: Water

Date Received: 08/19/16 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386495	08/24/16 20:29	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386497	08/24/16 16:30	AAT	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387265	08/28/16 15:04	MMC	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387556	08/30/16 20:56	MMC	TAL EDI
Total/NA	Prep	3510C			386469	08/24/16 07:49	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386789	08/25/16 21:00	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386092	08/22/16 23:00	FPO	TAL EDI
Total/NA	Analysis	9056A	DL	10	387602	08/30/16 21:22	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387675	08/29/16 16:16	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:02	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388143	09/01/16 10:26	VAD	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 20:39	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 20:01	PHP	TAL EDI

Client Sample ID: RW-5A-081816

Lab Sample ID: 460-118898-12

Date Collected: 08/18/16 14:45

Matrix: Water

Date Received: 08/19/16 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:11	RBS	TAL EDI
Total/NA	Prep	7470A			386526	08/24/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386593	08/24/16 14:37	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:45	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	388178	09/01/16 12:00	IAA	TAL EDI

Client Sample ID: OB-7-081816

Lab Sample ID: 460-118898-13

Date Collected: 08/18/16 15:10

Matrix: Water

Date Received: 08/19/16 11:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386495	08/24/16 20:56	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386497	08/24/16 19:00	AAT	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387265	08/28/16 15:25	MMC	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387556	08/30/16 21:25	MMC	TAL EDI
Total/NA	Prep	3510C			386469	08/24/16 07:49	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386789	08/25/16 21:18	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386092	08/22/16 23:18	FPO	TAL EDI
Total/NA	Analysis	9056A	DL	10	387602	08/30/16 21:40	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:04	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387675	08/29/16 16:22	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:04	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388143	09/01/16 10:31	VAD	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 20:45	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 20:07	PHP	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:13	RBS	TAL EDI
Total/NA	Prep	7470A			386526	08/24/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386593	08/24/16 14:39	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:45	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	388178	09/01/16 12:00	IAA	TAL EDI

Client Sample ID: OB-25-081816

Date Collected: 08/18/16 16:30
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386495	08/24/16 21:23	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386497	08/24/16 19:25	AAT	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387265	08/28/16 15:46	MMC	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 12:33	MMC	TAL EDI
Total/NA	Prep	3510C			386469	08/24/16 07:49	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386789	08/25/16 21:36	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386092	08/22/16 23:37	FPO	TAL EDI
Total/NA	Analysis	9056A	DL2	100	386479	08/24/16 14:52	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:04	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387675	08/29/16 16:35	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:04	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:21	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388143	09/01/16 10:37	VAD	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 20:50	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 20:17	PHP	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:15	RBS	TAL EDI
Total/NA	Prep	7470A			386526	08/24/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386593	08/24/16 14:41	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:48	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	388178	09/01/16 12:00	IAA	TAL EDI

Client Sample ID: RW-5-081816

Date Collected: 08/18/16 16:50
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386495	08/24/16 21:49	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386835	08/26/16 02:33	DAS	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387265	08/28/16 16:07	MMC	TAL EDI
Total/NA	Prep	3510C			386330	08/23/16 14:12	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 13:02	MMC	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 09:07	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386092	08/22/16 23:55	FPO	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Client Sample ID: RW-5-081816

Date Collected: 08/18/16 16:50
Date Received: 08/19/16 11:10

Lab Sample ID: 460-118898-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:04	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:23	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387675	08/29/16 16:40	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			387390	08/29/16 10:04	MDC	TAL EDI
Dissolved	Prep	3010A			387404	08/29/16 11:23	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388143	09/01/16 10:43	VAD	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 20:56	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 20:19	PHP	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:17	RBS	TAL EDI
Total/NA	Prep	7470A			386526	08/24/16 11:57	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386593	08/24/16 14:43	RBS	TAL EDI
Total/NA	Prep	9012B			387409	08/29/16 11:55	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387474	08/29/16 15:52	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	388178	09/01/16 12:00	IAA	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Certification Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Laboratory: TestAmerica Edison

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New Jersey	NELAP	2	12028	06-30-17

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,4-Trichlorobenzene
8260C SIM		Water	1,2,3-Trichloropropane
8260C SIM		Water	1,2-Dibromo-3-Chloropropane
8260C SIM		Water	Ethylene Dibromide
8270D SIM	3510C	Water	Bis(2-chloroethyl)ether
9056A		Water	Chloride
9056A		Water	Sulfate

Method Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
9056A	Anions, Ion Chromatography	SW846	TAL EDI
6020A	Metals (ICP/MS)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
9012B	Cyanide, Total andor Amenable	SW846	TAL EDI
SM 2320B	Alkalinity	SM	TAL EDI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118898-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-118898-1	TB-03-081816	Water	08/18/16 00:00	08/19/16 11:10
460-118898-2	FB-02-081816	Water	08/18/16 08:30	08/19/16 11:10
460-118898-3	OB-20A-081816	Water	08/18/16 09:55	08/19/16 11:10
460-118898-4	OB-6-081816	Water	08/18/16 10:20	08/19/16 11:10
460-118898-5	OB-21-081816	Water	08/18/16 10:30	08/19/16 11:10
460-118898-6	Dup-02-081816	Water	08/18/16 12:00	08/19/16 11:10
460-118898-7	RW-6-081816	Water	08/18/16 11:20	08/19/16 11:10
460-118898-8	RW-7-081816	Water	08/18/16 12:20	08/19/16 11:10
460-118898-9	OB-5-081816	Water	08/18/16 12:40	08/19/16 11:10
460-118898-10	OB-20B-081816	Water	08/18/16 12:50	08/19/16 11:10
460-118898-11	RW-6A-081816	Water	08/18/16 14:30	08/19/16 11:10
460-118898-12	RW-5A-081816	Water	08/18/16 14:45	08/19/16 11:10
460-118898-13	OB-7-081816	Water	08/18/16 15:10	08/19/16 11:10
460-118898-14	OB-25-081816	Water	08/18/16 16:30	08/19/16 11:10
460-118898-15	RW-5-081816	Water	08/18/16 16:50	08/19/16 11:10

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF C

460-118898 Chain of Custody

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Name (for report and invoice): Tim Roeper
Samplers Name (Printed): Robert Lautenberg
Site/Project Identification: Ford - Ringwood

Company: Cornerstone Environmental Group
P. O. #: 140802-015
State (Location of site): NJ: ☒ NY: ☐ Other:
Regulatory Program:
DKQP: ☐

Address: 100 Crystal Run Rd, Suite 101
City: Middletown State: NY 10941
Phone: 845-695-0200 Fax

Analysis Turnaround Time: Standard ☒
Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐

LAB USE ONLY — Project No: / Job No: 118898

ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + 15 TICs 8260B	TCL SVOC + 15 TICs 8270C	TCL Metals TEI + Filtered 6010/7470A	PCB's	Alkalinity, Total as $CaCO_3$ 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide				Sample Numbers
TB-03-081816	8/18/16	—	BW	3	✓											-1
FB-02-081816	8/18/16	08:30	BW	13	✓	✓	✓	✓	✓	✓	✓	✓				-2
OB-20A-081816	8/18/16	09:55	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-3
OB-6-081816	8/18/16	10:20	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-4
OB-6-081816 MS	8/18/16	10:20	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-4
OB-6-081816 MSD	8/18/16	10:20	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-4
OB-21-081816	8/18/16	10:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-5
Dup-02-081816	8/18/16	12:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-6
RW-6-081816	8/18/16	11:20	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-7
RW-7-081816	8/18/16	12:20	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-8

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other ______, 7 = Other ______
Soil:
Water:

Special Instructions
Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
1) [signature]	Cornerstone	8/19/16 839	1) James Thom[signature]	TA
2) James Thom[signature]	TA	8/19/16 1110	2) Alex Acierno	TA
3)			3)	
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0715)

IR 7 No CS 07/02/08/00/01/07

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

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CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 2 of 2

Name (for report and invoice): Tim Roeper
Samplers Name (Printed): Robert Lautenberg
Site/Project Identification: Ford - Ringwood
Company: Cornerstone Environmental Group
P. O. #: 140802-015
State (Location of site): NJ: [X] NY: [ ] Other:
Regulatory Program:
DKQP: [ ]
Address: 100 Crystal Run Rd, Suite 101
City: Middletown State: NY 10941
Phone: 845-695-0200 Fax:

Analysis Turnaround Time
Standard [X]
Rush Charges Authorized For:
2 Week [ ]
1 Week [ ]
Other [ ] ______

LAB USE ONLY
Project No:
Job No: 118898

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC+15TICs 8260B	TCL BVOC+15TICs 8270D	TCL Metals-Total + Filtered-6010B/7470A	PCB's	Alkalinity-Total as $CaCO_3$-2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide				Sample Numbers
OB-5-081816	8/18/16	12:40	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-9
OB-20B-081816	8/18/16	12:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-10
RW-6A-081816	8/18/16	14:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-11
RW-5A-081816	8/18/16	14:45	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-12
OB-7-081816	8/18/16	15:10	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-13
OB-25-081816	8/18/16	16:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-14
RW-5-081816	8/18/16	16:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-15

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other ________, 7 = Other ________
Soil:
Water:

Special Instructions

Water Metals Filtered (Yes/No)? ______

Relinquished by	Company	Date / Time	Received by	Company
1) [signature]	Cornerstone	8/19/16 839	1) [signature]	TA
2) [signature]	TA	8/19/16 1110	2)	
3)			3)	
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

TAL-0016 (0715)

IR7 - NOCS

Job Number: 118898

TestAmerica Edison
Receipt Temperature and pH Log

Number of Coolers: 6 IR Gun # 7

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	0.7 °C	0.7 °C	Cooler #4:	0.0 °C	0.0 °C	Cooler #7:	°C	°C
Cooler #2:	0.7 °C	0.7 °C	Cooler #5:	0.1 °C	0.1 °C	Cooler #8:	°C	°C
Cooler #3:	0.9 °C	0.8 °C	Cooler #6:	0.7 °C	0.7 °C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
2				<2											
3				<2								>12		--	
4				<2								>12			
5				<2								>12			
4DUP/MSD				<2								>12			
4MS				<2								>12			
5				<2								>12			
6				<2								>12			
7				<2								>12			
8				<2								>12			
9				<2								>12			
10				<2								>12			
11				<2								>12			

If pH adjustments are required record the information below:

Sample No(s). adjusted: NA

Preservative Name/Conc.: NA Volume of Preservative used (ml): NA

Lot # of Preservative(s): NA Expiration Date: NA

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: [signature] Date: 8/19/16

Job Number: 118898

TestAmerica Edison
Receipt Temperature and pH Log

Number of Coolers: 6 IR Gun #: 7

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	0.7 °C	°C	Cooler #4:	0.0 °C	°C	Cooler #7:	°C	°C
Cooler #2:	0.2 °C	°C	Cooler #5:	0.1 °C	°C	Cooler #8:	°C	°C
Cooler #3:	0.8 °C	°C	Cooler #6:	0.7 °C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
12				<2								>12			
13				<2								>12			
14				<2								>12			
15				<2								>12			

If pH adjustments are required record the information below:

Sample No(s). adjusted: N/A

Preservative Name/Conc.: N/A Volume of Preservative used (ml): N/A

Lot # of Preservative(s): N/A Expiration Date: N/A

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: [illegible] Date: 8/19/16

Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 460-118898-1

Login Number: 118898
List Number: 1
Creator: Rivera, Kenneth

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.7, 0.2, 0.8, 0, 0.1, 0.7°C, IR #7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	See NCM
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-118951-1
Client Project/Site: FORD Ringwood Mines E203361

For:
Cornerstone Environmental Group, LLC
100 Crystal Run Road
Suite 101
Middletown, New York 10941

Attn: Tim Roeper

Maegen Pane

Authorized for release by:
9/2/2016 5:01:38 PM
Maegen Pane, Project Management Assistant I
(732)549-3900
maegen.pane@testamericainc.com

Designee for

Marie Meidhof, Project Manager II
(732)549-3900
marie.meidhof@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	This flag indicates the presumptive evidence of a compound.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
F1	MS and/or MSD Recovery is outside acceptance limits.
*	LCS or LCSD is outside acceptance limits.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F3	Duplicate RPD exceeds the control limit
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: TestAmerica Edison

Client: Cornerstone Environmental Group, LLC

Project Location: FORD Ringwood Mines E203361

Project Number: 460-118951-1

Laboratory Sample ID(s): 460-118951-1, 460-118951-2, 460-118951-3, 460-118951-4, 460-118951-5, 460-118951-6, 460-118951-7, 460-118951-8, 460-118951-9, 460-118951-10, 460-118951-11, 460-118951-12, 460-118951-13, 460-118951-14, 460-118951-15, 460-118951-16, 460-118951-17, 460-118951-18

Sampling Date(s): 08/19/2016

List DKQP Methods Used: 8260C, 8260C SIM, 8270D, 8270D SIM, 8082A, 6020A, 7470A, 9012B

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	☑Yes ☐No
1A	Were the method specified handling, preservation, and holding time requirements met?	☐Yes ☐No ☑ See case narrative
1B	*EPH Method:* Was the EPH method conducted without significant modifications? (see Section 11.3 of respective DKQ methods)	☐Yes ☐No ☑N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody documents(s)?	☐Yes ☐No ☑ See case narrative
3	Were samples received at an appropriate temperature (4±2° C)?	☑Yes ☐No ☐N/A
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	☐Yes ☑No
5	a) Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	☐Yes ☐No ☑ See case narrative
	b) Were these reporting limits met?	☐Yes ☐No ☐N/A ☑ See case narrative
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	☑Yes ☐No
7	Are project-specific matrix spike and/or laboratory duplicates included in this data set?	☑Yes ☐No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information should be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet requirements for "Data of Known Quality."

Job ID: 460-118951-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: Cornerstone Environmental Group, LLC

Project: FORD Ringwood Mines E203361

Report Number: 460-118951-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 8/19/2016 6:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 7 coolers at receipt time were 1.0º C, 1.0º C, 1.2º C, 1.2º C, 1.3º C, 1.4º C and 1.5º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS DKQP AQUEOUS

Samples SC-1-081916 (460-118951-1), SW-11-081916 (460-118951-2), SW-PAB-00-081916 (460-118951-3), SR3-Pond-081916 (460-118951-4), SR3-SEEP-1-081916 (460-118951-5), SR3-SEEP-2-081916 (460-118951-6), SW-PAB-01-081916 (460-118951-7), SW-PAB-01A-081916 (460-118951-8), SW-MRB-00-081916 (460-118951-9), SW-NOB-02-081916 (460-118951-10), SW-PAB-04-081916 (460-118951-11), SW-SP-01-081916 (460-118951-12), SW-03-081916 (460-118951-13), SW-04-081916 (460-118951-14), SW-MRB-03-081916 (460-118951-15), SW-MRB-02-081916 (460-118951-16), FB-03-081916 (460-118951-17) and TB-04-081916 (460-118951-18) were analyzed for Volatile organic compounds DKQP Aqueous in accordance with EPA SW-846 Methods 8260C DKQP. The samples were analyzed on 08/24/2016 and 08/25/2016.

Chloroethane failed the recovery criteria high for the MS of sample SR3-Pond-081916MS (460-118951-4) in batch 460-386348.

Chloroethane failed the recovery criteria high for the MSD of sample SR3-Pond-081916MSD (460-118951-4) in batch 460-386348.

The continuing calibration verification (CCV) associated with batch 460-386590 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The continuing calibration verification (CCV) associated with batch 460-386348 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

Refer to the QC report for details.

Job ID: 460-118951-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

No other difficulties were encountered during the Volatile organic compounds DKQP Aqueous analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) DKQP

Samples SC-1-081916 (460-118951-1), SW-11-081916 (460-118951-2), SW-PAB-00-081916 (460-118951-3), SR3-Pond-081916 (460-118951-4), SR3-SEEP-1-081916 (460-118951-5), SR3-SEEP-2-081916 (460-118951-6), SW-PAB-01-081916 (460-118951-7), SW-PAB-01A-081916 (460-118951-8), SW-MRB-00-081916 (460-118951-9), SW-NOB-02-081916 (460-118951-10), SW-PAB-04-081916 (460-118951-11), SW-SP-01-081916 (460-118951-12), SW-03-081916 (460-118951-13), SW-04-081916 (460-118951-14), SW-MRB-03-081916 (460-118951-15), SW-MRB-02-081916 (460-118951-16) and FB-03-081916 (460-118951-17) were analyzed for Semivolatile organic compounds (GC/MS) DKQP in accordance with EPA SW-846 Method 8270D DKQP. The samples were prepared on 08/24/2016 and analyzed on 08/30/2016.

Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: SR3-Pond-081916 (460-118951-4). These results have been reported and qualified.

Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: SW-PAB-00-081916 (460-118951-3). These results have been reported and qualified.

Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: SR3-SEEP-1-081916 (460-118951-5). These results have been reported and qualified.

Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: SR3-SEEP-2-081916 (460-118951-6). These results have been reported and qualified.

Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: SW-PAB-01-081916 (460-118951-7). These results have been reported and qualified.

2-Methylphenol failed the recovery criteria low for the MSD of sample SR3-Pond-081916MSD (460-118951-4) in batch 460-387628. Pyrene exceeded the RPD limit.

The continuing calibration verification (CCV) analyzed in batch 460-387628 was outside the method criteria for the following analyte(s): 1,1'-Biphenyl and Pentachlorophenol. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)

Samples SC-1-081916 (460-118951-1), SW-11-081916 (460-118951-2), SW-PAB-00-081916 (460-118951-3), SR3-Pond-081916 (460-118951-4), SR3-SEEP-1-081916 (460-118951-5), SR3-SEEP-2-081916 (460-118951-6), SW-PAB-01-081916 (460-118951-7), SW-PAB-01A-081916 (460-118951-8), SW-MRB-00-081916 (460-118951-9), SW-NOB-02-081916 (460-118951-10), SW-PAB-04-081916 (460-118951-11), SW-SP-01-081916 (460-118951-12), SW-03-081916 (460-118951-13), SW-04-081916 (460-118951-14), SW-MRB-03-081916 (460-118951-15), SW-MRB-02-081916 (460-118951-16) and FB-03-081916 (460-118951-17) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) in accordance with EPA Method 8270C SIM DKQP. The samples were prepared on 08/24/2016 and analyzed on 08/31/2016.

Job ID: 460-118951-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

The laboratory control sample (LCS) for batch preparation batch 460-386536 and analytical batch 460-387794 recovered outside control limits for multiple analytes. These analytes were outside DKQP limits, but within the house limits; therefore, the data have been reported.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatile organic compounds - Selected Ion Mode (SIM) analysis.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS) DKQP

Samples SC-1-081916 (460-118951-1), SW-11-081916 (460-118951-2), SW-PAB-00-081916 (460-118951-3), SR3-Pond-081916 (460-118951-4), SR3-SEEP-1-081916 (460-118951-5), SR3-SEEP-2-081916 (460-118951-6), SW-PAB-01-081916 (460-118951-7), SW-PAB-01A-081916 (460-118951-8), SW-MRB-00-081916 (460-118951-9), SW-NOB-02-081916 (460-118951-10), SW-PAB-04-081916 (460-118951-11), SW-SP-01-081916 (460-118951-12), SW-03-081916 (460-118951-13), SW-04-081916 (460-118951-14), SW-MRB-03-081916 (460-118951-15), SW-MRB-02-081916 (460-118951-16), FB-03-081916 (460-118951-17) and TB-04-081916 (460-118951-18) were analyzed for volatile organic compounds (GC-MS) DKQP in accordance with EPA SW-846 Method 8260C SIM DKQP. The samples were analyzed on 08/25/2016 and 08/26/2016.

Ethylene Dibromide exceeded the RPD limit for the MSD of sample SR3-Pond-081916MSD (460-118951-4) in batch 460-387501.

Refer to the QC report for details.

No other difficulties were encountered during the volatile organic compounds (GC-MS) DKQP analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS) DKQP

Samples SC-1-081916 (460-118951-1), SW-11-081916 (460-118951-2), SW-PAB-00-081916 (460-118951-3), SR3-Pond-081916 (460-118951-4), SR3-SEEP-1-081916 (460-118951-5), SR3-SEEP-2-081916 (460-118951-6), SW-PAB-01-081916 (460-118951-7), SW-PAB-01A-081916 (460-118951-8), SW-MRB-00-081916 (460-118951-9), SW-NOB-02-081916 (460-118951-10), SW-PAB-04-081916 (460-118951-11), SW-SP-01-081916 (460-118951-12), SW-03-081916 (460-118951-13), SW-04-081916 (460-118951-14), SW-MRB-03-081916 (460-118951-15), SW-MRB-02-081916 (460-118951-16) and FB-03-081916 (460-118951-17) were analyzed for polychlorinated biphenyls (PCBs) DKQP in accordance with EPA SW-846 Method 8082A DKQP. The samples were prepared on 08/24/2016 and analyzed on 08/25/2016.

PCB-1260 failed the recovery criteria high for the MSD of sample SR3-Pond-081916MSD (460-118951-4) in batch 460-386701.

Refer to the QC report for details.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

METALS DKQP

Samples SC-1-081916 (460-118951-1), SW-11-081916 (460-118951-2), SW-PAB-00-081916 (460-118951-3), SR3-Pond-081916 (460-118951-4), SR3-SEEP-1-081916 (460-118951-5), SR3-SEEP-2-081916 (460-118951-6), SW-PAB-01-081916 (460-118951-7), SW-PAB-01A-081916 (460-118951-8), SW-MRB-00-081916 (460-118951-9), SW-NOB-02-081916 (460-118951-10), SW-PAB-04-081916 (460-118951-11), SW-SP-01-081916 (460-118951-12), SW-03-081916 (460-118951-13), SW-04-081916 (460-118951-14), SW-MRB-03-081916 (460-118951-15), SW-MRB-02-081916 (460-118951-16) and FB-03-081916 (460-118951-17) were analyzed for Metals DKQP in accordance with EPA SW-846 Method 6020A DKQP. The samples were prepared on 08/29/2016 and analyzed on 09/01/2016.

Sodium failed the recovery criteria low for the MS of sample SR3-Pond-081916MS (460-118951-4) in batch 460-388223.

Job ID: 460-118951-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

Refer to the QC report for details.

Sodium exceeded the RPD limit for the duplicate of sample SR3-Pond-081916DU (460-118951-4). Refer to the QC report for details.

No other difficulties were encountered during the Metals DKQP analysis.

All other quality control parameters were within the acceptance limits.

METALS

Samples SC-1-081916 (460-118951-1), SW-11-081916 (460-118951-2), SW-PAB-00-081916 (460-118951-3), SR3-Pond-081916 (460-118951-4), SR3-SEEP-1-081916 (460-118951-5), SR3-SEEP-2-081916 (460-118951-6), SW-PAB-01-081916 (460-118951-7), SW-PAB-01A-081916 (460-118951-8), SW-MRB-00-081916 (460-118951-9), SW-NOB-02-081916 (460-118951-10), SW-PAB-04-081916 (460-118951-11), SW-SP-01-081916 (460-118951-12), SW-03-081916 (460-118951-13), SW-04-081916 (460-118951-14), SW-MRB-03-081916 (460-118951-15), SW-MRB-02-081916 (460-118951-16) and FB-03-081916 (460-118951-17) were analyzed for Metals in accordance with EPA SW-846 Method 6020A DKQP. The samples were prepared on 08/26/2016, 08/28/2016 and 08/29/2016 and analyzed on 08/28/2016, 08/30/2016, 09/01/2016 and 09/02/2016.

Calcium failed the recovery criteria low for the MS of sample SR3-Pond-081916MS (460-118951-4) in batch 460-387394.

Calcium and Sodium failed the recovery criteria low for the MS of sample 460-119005-12 in batch 460-388293.

Several analytes failed the recovery criteria high for the MS of sample 460-119272-2 in batch 460-388143.

Refer to the QC report for details.

for the duplicate of sample 460-119005-12. Refer to the QC report for details.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

MERCURY DKQP

Samples SC-1-081916 (460-118951-1), SW-11-081916 (460-118951-2), SW-PAB-00-081916 (460-118951-3), SR3-Pond-081916 (460-118951-4), SR3-SEEP-1-081916 (460-118951-5), SR3-SEEP-2-081916 (460-118951-6), SW-PAB-01-081916 (460-118951-7), SW-PAB-01A-081916 (460-118951-8), SW-MRB-00-081916 (460-118951-9), SW-NOB-02-081916 (460-118951-10), SW-PAB-04-081916 (460-118951-11), SW-SP-01-081916 (460-118951-12), SW-03-081916 (460-118951-13), SW-04-081916 (460-118951-14), SW-MRB-03-081916 (460-118951-15), SW-MRB-02-081916 (460-118951-16) and FB-03-081916 (460-118951-17) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 08/29/2016 and 08/30/2016.

No difficulties were encountered during the dissolved Hg analysis.

All quality control parameters were within the acceptance limits.

MERCURY DKQP

Samples SC-1-081916 (460-118951-1), SW-11-081916 (460-118951-2), SW-PAB-00-081916 (460-118951-3), SR3-Pond-081916 (460-118951-4), SR3-SEEP-1-081916 (460-118951-5), SR3-SEEP-2-081916 (460-118951-6), SW-PAB-01-081916 (460-118951-7), SW-PAB-01A-081916 (460-118951-8), SW-MRB-00-081916 (460-118951-9), SW-NOB-02-081916 (460-118951-10), SW-PAB-04-081916 (460-118951-11), SW-SP-01-081916 (460-118951-12), SW-03-081916 (460-118951-13), SW-04-081916 (460-118951-14), SW-MRB-03-081916 (460-118951-15), SW-MRB-02-081916 (460-118951-16) and FB-03-081916 (460-118951-17) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 08/25/2016.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

Job ID: 460-118951-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

ANIONS

Samples SC-1-081916 (460-118951-1), SW-11-081916 (460-118951-2), SW-PAB-00-081916 (460-118951-3), SR3-Pond-081916 (460-118951-4), SR3-SEEP-1-081916 (460-118951-5), SR3-SEEP-2-081916 (460-118951-6), SW-PAB-01-081916 (460-118951-7), SW-PAB-01A-081916 (460-118951-8), SW-MRB-00-081916 (460-118951-9), SW-NOB-02-081916 (460-118951-10), SW-PAB-04-081916 (460-118951-11), SW-SP-01-081916 (460-118951-12), SW-03-081916 (460-118951-13), SW-04-081916 (460-118951-14), SW-MRB-03-081916 (460-118951-15), SW-MRB-02-081916 (460-118951-16) and FB-03-081916 (460-118951-17) were analyzed for anions in accordance with EPA SW-846 Method 9056. The samples were analyzed on 08/24/2016 and 08/25/2016.

The laboratory control sample (LCS) for 386769 recovered outside control limits for the Fluoride: <AffectedAnalytes>. This analyte were biased high in the LCS and was not reported in the associated samples; therefore, the data have been reported.

Sulfate failed the recovery criteria low for the MS of sample SR3-SEEP-2-081916MS (460-118951-6) in batch 460-386769.

Refer to the QC report for details.

Samples SC-1-081916 (460-118951-1)[10X], SR3-SEEP-1-081916 (460-118951-5)[5X], SR3-SEEP-2-081916 (460-118951-6)[2X], SW-PAB-01-081916 (460-118951-7)[2X], SW-PAB-04-081916 (460-118951-11)[5X], SW-SP-01-081916 (460-118951-12)[20X], SW-03-081916 (460-118951-13)[100X], SW-04-081916 (460-118951-14)[100X] and SW-MRB-03-081916 (460-118951-15)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The following samples was diluted to bring the concentration of target analytes within the calibration range: SR3-SEEP-1-081916 (460-118951-5) and SW-PAB-04-081916 (460-118951-11) at 5.0 and 5.0. Elevated reporting limits (RLs) are provided.

The following samples was diluted to bring the concentration of target analytes within the calibration range: SR3-SEEP-2-081916 (460-118951-6) and SW-PAB-01-081916 (460-118951-7) at 2.0 and 2.0. Elevated reporting limits (RLs) are provided.

The following samples was diluted to bring the concentration of target analytes within the calibration range: SW-SP-01-081916 (460-118951-12) and SW-MRB-03-081916 (460-118951-15). Elevated reporting limits (RLs) are provided.

The following samples was diluted to bring the concentration of target analytes within the calibration range: SW-03-081916 (460-118951-13) and SW-04-081916 (460-118951-14) at 100.0 and 100.0. Elevated reporting limits (RLs) are provided.

The following sample was diluted to bring the concentration of target analytes within the calibration range: SC-1-081916 (460-118951-1) at 10.0. Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the anions analysis.

All other quality control parameters were within the acceptance limits.

ALKALINITY

Samples SC-1-081916 (460-118951-1), SW-11-081916 (460-118951-2), SW-PAB-00-081916 (460-118951-3), SR3-Pond-081916 (460-118951-4), SR3-SEEP-1-081916 (460-118951-5), SR3-SEEP-2-081916 (460-118951-6), SW-PAB-01-081916 (460-118951-7), SW-PAB-01A-081916 (460-118951-8), SW-MRB-00-081916 (460-118951-9), SW-NOB-02-081916 (460-118951-10), SW-PAB-04-081916 (460-118951-11), SW-SP-01-081916 (460-118951-12), SW-03-081916 (460-118951-13), SW-04-081916 (460-118951-14), SW-MRB-03-081916 (460-118951-15), SW-MRB-02-081916 (460-118951-16) and FB-03-081916 (460-118951-17) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 09/02/2016.

No difficulties were encountered during the alkalinity analysis.

All quality control parameters were within the acceptance limits.

CYANIDE

Samples SC-1-081916 (460-118951-1), SW-11-081916 (460-118951-2), SW-PAB-00-081916 (460-118951-3), SR3-Pond-081916 (460-118951-4), SR3-SEEP-1-081916 (460-118951-5), SR3-SEEP-2-081916 (460-118951-6), SW-PAB-01-081916 (460-118951-7),

Job ID: 460-118951-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

SW-PAB-01A-081916 (460-118951-8), SW-MRB-00-081916 (460-118951-9), SW-NOB-02-081916 (460-118951-10), SW-PAB-04-081916 (460-118951-11), SW-SP-01-081916 (460-118951-12), SW-03-081916 (460-118951-13), SW-04-081916 (460-118951-14), SW-MRB-03-081916 (460-118951-15), SW-MRB-02-081916 (460-118951-16) and FB-03-081916 (460-118951-17) were analyzed for cyanide in accordance with EPA SW-846 Method 9012B (DKQP). The samples were prepared on 08/29/2016 and analyzed on 08/30/2016.

No difficulties were encountered during the cyanide analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SC-1-081916 — Lab Sample ID: 460-118951-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.8		1.0	0.090	ug/L	1		8260C	Total/NA
Chlorobenzene	0.35	J	1.0	0.24	ug/L	1		8260C	Total/NA
Chloroethane	2.0		1.0	0.37	ug/L	1		8260C	Total/NA
Cyclohexane	2.5		1.0	0.26	ug/L	1		8260C	Total/NA
Ethylbenzene	1.5		1.0	0.30	ug/L	1		8260C	Total/NA
Isopropylbenzene	2.0		1.0	0.32	ug/L	1		8260C	Total/NA
Methylcyclohexane	1.9		1.0	0.22	ug/L	1		8260C	Total/NA
Toluene	0.38	J	1.0	0.25	ug/L	1		8260C	Total/NA
Xylenes, Total	64		2.0	0.28	ug/L	1		8260C	Total/NA
Pentachlorophenol	0.11	J	0.21	0.080	ug/L	1		8270D SIM	Total/NA
Naphthalene	5.9	J	10	0.83	ug/L	1		8270D	Total/NA
N-Nitrosodiphenylamine	1.1	J	10	0.77	ug/L	1		8270D	Total/NA
Di-n-butyl phthalate	0.89	J	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.2	J	2.1	0.75	ug/L	1		8270D	Total/NA
Chloride - DL2	3.41	D	1.20	0.30	mg/L	10		9056A	Total/NA
Barium	429		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	3.4	J	4.0	1.5	ug/L	2		6020A	Total/NA
Chromium	3.5	J	4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	839		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	13.2		4.0	1.6	ug/L	2		6020A	Total/NA
Lead	7.9		1.2	0.44	ug/L	2		6020A	Total/NA
Vanadium	2.6	J	4.0	1.4	ug/L	2		6020A	Total/NA
Zinc	18.3		16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	50.0		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	4000		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	4720		200	68.4	ug/L	2		6020A	Total/NA
Potassium	2610		200	74.8	ug/L	2		6020A	Total/NA
Calcium	43600		200	69.5	ug/L	2		6020A	Total/NA
Iron	77200		120	49.1	ug/L	2		6020A	Total/NA
Barium	360		4.0	1.5	ug/L	2		6020A	Dissolved
Cobalt	3.2	J	4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	764		8.0	3.0	ug/L	2		6020A	Dissolved
Nickel	27.6		4.0	1.6	ug/L	2		6020A	Dissolved
Sodium	3960		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	4820		200	68.4	ug/L	2		6020A	Dissolved
Potassium	2530		200	74.8	ug/L	2		6020A	Dissolved
Calcium	42900		200	69.5	ug/L	2		6020A	Dissolved
Iron	44600		120	49.1	ug/L	2		6020A	Dissolved
Cyanide, Total	0.0031	J	0.010	0.0020	mg/L	1		9012B	Total/NA
Bicarbonate Alkalinity as CaCO3	171		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	171		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SW-11-081916 — Lab Sample ID: 460-118951-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.00		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	5.68		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	10.3		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	128		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	14.0	J	40.0	13.5	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SW-11-081916 (Continued) — Lab Sample ID: 460-118951-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	4420		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	3310		200	68.4	ug/L	2		6020A	Total/NA
Potassium	630		200	74.8	ug/L	2		6020A	Total/NA
Calcium	11500		200	69.5	ug/L	2		6020A	Total/NA
Iron	422		120	49.1	ug/L	2		6020A	Total/NA
Barium	9.6		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	84.2		8.0	3.0	ug/L	2		6020A	Dissolved
Aluminum	16.8	J	40.0	13.5	ug/L	2		6020A	Dissolved
Sodium	4250		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	3400		200	68.4	ug/L	2		6020A	Dissolved
Potassium	598		200	74.8	ug/L	2		6020A	Dissolved
Calcium	11300		200	69.5	ug/L	2		6020A	Dissolved
Iron	242		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	40.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	40.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SW-PAB-00-081916 — Lab Sample ID: 460-118951-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.6	J	5.0	1.1	ug/L	1		8260C	Total/NA
Chloride	1.69		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	6.39		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	11.3		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	42.5		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	27.6	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	4900		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	3710		200	68.4	ug/L	2		6020A	Total/NA
Potassium	671		200	74.8	ug/L	2		6020A	Total/NA
Calcium	12600		200	69.5	ug/L	2		6020A	Total/NA
Iron	78.7	J	120	49.1	ug/L	2		6020A	Total/NA
Barium	10.6		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	14.9		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	4860		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	3770		200	68.4	ug/L	2		6020A	Dissolved
Potassium	662		200	74.8	ug/L	2		6020A	Dissolved
Calcium	12300		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	40.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	40.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SR3-Pond-081916 — Lab Sample ID: 460-118951-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.5		5.0	1.1	ug/L	1		8260C	Total/NA
Toluene	0.36	J	1.0	0.25	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	1.3	J	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.5	J	2.1	0.75	ug/L	1		8270D	Total/NA
Chloride	2.09		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	0.83		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	116		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	577		8.0	3.0	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SR3-Pond-081916 (Continued) — Lab Sample ID: 460-118951-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	4310		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	4780		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1910		200	74.8	ug/L	2		6020A	Total/NA
Calcium	28700		200	69.5	ug/L	2		6020A	Total/NA
Iron	1350		120	49.1	ug/L	2		6020A	Total/NA
Barium	94.1		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	4.1	J	8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	5970		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	4760		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1880		200	74.8	ug/L	2		6020A	Dissolved
Calcium	29300		200	69.5	ug/L	2		6020A	Dissolved
Cyanide, Total	0.0020	J	0.010	0.0020	mg/L	1		9012B	Total/NA
Bicarbonate Alkalinity as CaCO3	92.5		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	92.5		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SR3-SEEP-1-081916 — Lab Sample ID: 460-118951-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.3		5.0	1.1	ug/L	1		8260C	Total/NA
Benzene	0.38	J	1.0	0.090	ug/L	1		8260C	Total/NA
Chloroethane	2.5		1.0	0.37	ug/L	1		8260C	Total/NA
Sulfate	0.98		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	2.91	D	0.60	0.15	mg/L	5		9056A	Total/NA
Arsenic	1.4	J	2.0	0.71	ug/L	2		6020A	Total/NA
Barium	327		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	2.1	J	4.0	1.5	ug/L	2		6020A	Total/NA
Chromium	2.3	J	4.0	1.5	ug/L	2		6020A	Total/NA
Copper	5.4		4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	1030		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	4.5		4.0	1.6	ug/L	2		6020A	Total/NA
Lead	17.0		1.2	0.44	ug/L	2		6020A	Total/NA
Vanadium	3.3	J	4.0	1.4	ug/L	2		6020A	Total/NA
Zinc	36.7		16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	521		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3900		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	4380		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1970		200	74.8	ug/L	2		6020A	Total/NA
Calcium	27300		200	69.5	ug/L	2		6020A	Total/NA
Iron	48200		120	49.1	ug/L	2		6020A	Total/NA
Barium	214		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	877		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	3940		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	4190		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1740		200	74.8	ug/L	2		6020A	Dissolved
Calcium	27600		200	69.5	ug/L	2		6020A	Dissolved
Iron	72.1	J	120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	84.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	84.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SR3-SEEP-2-081916 — Lab Sample ID: 460-118951-6

This Detection Summary does not include radiochemical test results.

Client Sample ID: SR3-SEEP-2-081916 (Continued) — Lab Sample ID: 460-118951-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.9		5.0	1.1	ug/L	1		8260C	Total/NA
Benzene	0.61	J	1.0	0.090	ug/L	1		8260C	Total/NA
Chloroethane	4.1		1.0	0.37	ug/L	1		8260C	Total/NA
Sulfate	1.0		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	2.21	D	0.24	0.060	mg/L	2		9056A	Total/NA
Arsenic	0.80	J	2.0	0.71	ug/L	2		6020A	Total/NA
Barium	264		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	890		8.0	3.0	ug/L	2		6020A	Total/NA
Lead	0.90	J	1.2	0.44	ug/L	2		6020A	Total/NA
Aluminum	31.3	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3860		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	4130		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1660		200	74.8	ug/L	2		6020A	Total/NA
Calcium	26800		200	69.5	ug/L	2		6020A	Total/NA
Iron	35600		120	49.1	ug/L	2		6020A	Total/NA
Barium	215		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	857		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	3920		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	4190		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1720		200	74.8	ug/L	2		6020A	Dissolved
Calcium	27700		200	69.5	ug/L	2		6020A	Dissolved
Iron	119	J	120	49.1	ug/L	2		6020A	Dissolved
Cyanide, Total	0.0020	J	0.010	0.0020	mg/L	1		9012B	Total/NA
Bicarbonate Alkalinity as CaCO3	82.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	82.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SW-PAB-01-081916 — Lab Sample ID: 460-118951-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.1		5.0	1.1	ug/L	1		8260C	Total/NA
Benzene	0.12	J	1.0	0.090	ug/L	1		8260C	Total/NA
Chloroethane	1.5		1.0	0.37	ug/L	1		8260C	Total/NA
Methylene Chloride	0.38	J	1.0	0.21	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	0.89	J	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.4	J	2.1	0.75	ug/L	1		8270D	Total/NA
Sulfate	1.25		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	1.83	D	0.24	0.060	mg/L	2		9056A	Total/NA
Arsenic	1.1	J	2.0	0.71	ug/L	2		6020A	Total/NA
Barium	133		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	678		8.0	3.0	ug/L	2		6020A	Total/NA
Lead	0.66	J	1.2	0.44	ug/L	2		6020A	Total/NA
Vanadium	1.4	J	4.0	1.4	ug/L	2		6020A	Total/NA
Aluminum	38.0	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3630		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	3450		200	68.4	ug/L	2		6020A	Total/NA
Potassium	986		200	74.8	ug/L	2		6020A	Total/NA
Calcium	16800		200	69.5	ug/L	2		6020A	Total/NA
Iron	31100		120	49.1	ug/L	2		6020A	Total/NA
Barium	110		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	621		8.0	3.0	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: SW-PAB-01-081916 (Continued) — Lab Sample ID: 460-118951-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	3710		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	3540		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1020		200	74.8	ug/L	2		6020A	Dissolved
Calcium	17300		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	56.3		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	56.3		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SW-PAB-01A-081916 — Lab Sample ID: 460-118951-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.8		5.0	1.1	ug/L	1		8260C	Total/NA
Methylene Chloride	0.53	J	1.0	0.21	ug/L	1		8260C	Total/NA
Chloride	2.54		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	1.36		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	70.2		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	1310		8.0	3.0	ug/L	2		6020A	Total/NA
Sodium	4180		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	5020		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1690		200	74.8	ug/L	2		6020A	Total/NA
Calcium	26500		200	69.5	ug/L	2		6020A	Total/NA
Iron	3870		120	49.1	ug/L	2		6020A	Total/NA
Barium	63.8		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	1240		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	4250		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	5060		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1710		200	74.8	ug/L	2		6020A	Dissolved
Calcium	27300		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	84.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	84.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SW-MRB-00-081916 — Lab Sample ID: 460-118951-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.87		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	5.67		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	8.9		4.0	1.5	ug/L	2		6020A	Total/NA
Copper	1.9	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	25.9		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	73.8		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	2670		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	1690		200	68.4	ug/L	2		6020A	Total/NA
Potassium	506		200	74.8	ug/L	2		6020A	Total/NA
Calcium	4040		200	69.5	ug/L	2		6020A	Total/NA
Iron	323		120	49.1	ug/L	2		6020A	Total/NA
Barium	8.0		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	3.7	J	8.0	3.0	ug/L	2		6020A	Dissolved
Aluminum	25.7	J	40.0	13.5	ug/L	2		6020A	Dissolved
Sodium	2620		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	1700		200	68.4	ug/L	2		6020A	Dissolved
Potassium	529		200	74.8	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: SW-MRB-00-081916 (Continued) — Lab Sample ID: 460-118951-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	4140		200	69.5	ug/L	2		6020A	Dissolved
Iron	76.2	J	120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	15.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	15.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SW-NOB-02-081916 — Lab Sample ID: 460-118951-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.6		5.0	1.1	ug/L	1		8260C	Total/NA
Pentachlorophenol	0.11	J	0.21	0.080	ug/L	1		8270D SIM	Total/NA
Chloride	1.68		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	7.05		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	9.2		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	14.2		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	36.0	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3520		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	4830		200	68.4	ug/L	2		6020A	Total/NA
Potassium	862		200	74.8	ug/L	2		6020A	Total/NA
Calcium	10500		200	69.5	ug/L	2		6020A	Total/NA
Iron	77.8	J	120	49.1	ug/L	2		6020A	Total/NA
Barium	8.6		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	6.3	J	8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	3320		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	4930		200	68.4	ug/L	2		6020A	Dissolved
Potassium	908		200	74.8	ug/L	2		6020A	Dissolved
Calcium	11000		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	40.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	40.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SW-PAB-04-081916 — Lab Sample ID: 460-118951-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	8.2		5.0	1.1	ug/L	1		8260C	Total/NA
Sulfate	2.47		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	7.66	D	0.60	0.15	mg/L	5		9056A	Total/NA
Barium	24.8		4.0	1.5	ug/L	2		6020A	Total/NA
Copper	3.1	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	64.4		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	26.7	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	6380		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	5380		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1110		200	74.8	ug/L	2		6020A	Total/NA
Calcium	23600		200	69.5	ug/L	2		6020A	Total/NA
Iron	210		120	49.1	ug/L	2		6020A	Total/NA
Barium	23.0		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	29.5		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	6320		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	5470		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1160		200	74.8	ug/L	2		6020A	Dissolved
Calcium	24700		200	69.5	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: SW-PAB-04-081916 (Continued) — Lab Sample ID: 460-118951-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	76.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	76.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SW-SP-01-081916 — Lab Sample ID: 460-118951-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	9.4		5.0	1.1	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	2.4	J	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	4.0		2.1	0.75	ug/L	1		8270D	Total/NA
Sulfate	5.29		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	34.3	D	2.40	0.60	mg/L	20		9056A	Total/NA
Barium	12.7		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	113		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	18.7	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	18100		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	3670		200	68.4	ug/L	2		6020A	Total/NA
Potassium	914		200	74.8	ug/L	2		6020A	Total/NA
Calcium	12000		200	69.5	ug/L	2		6020A	Total/NA
Iron	695		120	49.1	ug/L	2		6020A	Total/NA
Barium	12.0		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	12.6		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	18800		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	3860		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1020		200	74.8	ug/L	2		6020A	Dissolved
Calcium	13000		200	69.5	ug/L	2		6020A	Dissolved
Iron	291		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	30.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	30.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SW-03-081916 — Lab Sample ID: 460-118951-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Di-n-butyl phthalate	1.9	J	10	0.86	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	2.0	J	2.1	0.75	ug/L	1		8270D	Total/NA
Sulfate	5.13		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	134	D	12.0	3.00	mg/L	100		9056A	Total/NA
Barium	18.1		4.0	1.5	ug/L	2		6020A	Total/NA
Copper	2.7	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	193		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	26.1	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	82700		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	6350		200	68.4	ug/L	2		6020A	Total/NA
Potassium	887		200	74.8	ug/L	2		6020A	Total/NA
Calcium	18300		200	69.5	ug/L	2		6020A	Total/NA
Iron	505		120	49.1	ug/L	2		6020A	Total/NA
Barium	16.1		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	103		8.0	3.0	ug/L	2		6020A	Dissolved
Nickel	2.7	J	4.0	1.6	ug/L	2		6020A	Dissolved
Sodium	78100		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	6100		200	68.4	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-03-081916 (Continued)

Lab Sample ID: 460-118951-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	873		200	74.8	ug/L	2		6020A	Dissolved
Calcium	17900		200	69.5	ug/L	2		6020A	Dissolved
Iron	179		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	32.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	32.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SW-04-081916

Lab Sample ID: 460-118951-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Di-n-butyl phthalate	1.3	J	10	0.82	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.7	J	2.0	0.72	ug/L	1		8270D	Total/NA
Sulfate	7.70		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	149	D	12.0	3.00	mg/L	100		9056A	Total/NA
Barium	18.3		4.0	1.5	ug/L	2		6020A	Total/NA
Copper	1.6	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	31.6		8.0	3.0	ug/L	2		6020A	Total/NA
Sodium	81700		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	9840		200	68.4	ug/L	2		6020A	Total/NA
Potassium	2690		200	74.8	ug/L	2		6020A	Total/NA
Calcium	36800		200	69.5	ug/L	2		6020A	Total/NA
Iron	131		120	49.1	ug/L	2		6020A	Total/NA
Barium	18.4		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	16.5		8.0	3.0	ug/L	2		6020A	Dissolved
Aluminum	63.0		40.0	13.5	ug/L	2		6020A	Dissolved
Sodium	87100		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	10600		200	68.4	ug/L	2		6020A	Dissolved
Potassium	2700		200	74.8	ug/L	2		6020A	Dissolved
Calcium	37600		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	98.5		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	98.5		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SW-MRB-03-081916

Lab Sample ID: 460-118951-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Di-n-butyl phthalate	2.0	J	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	2.1		2.1	0.75	ug/L	1		8270D	Total/NA
Sulfate	4.46		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	9.67	D	2.40	0.60	mg/L	20		9056A	Total/NA
Barium	11.9		4.0	1.5	ug/L	2		6020A	Total/NA
Copper	1.6	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	226		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	27.3	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	18600		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	4330		200	68.4	ug/L	2		6020A	Total/NA
Potassium	680		200	74.8	ug/L	2		6020A	Total/NA
Calcium	12800		200	69.5	ug/L	2		6020A	Total/NA
Iron	709		120	49.1	ug/L	2		6020A	Total/NA
Barium	10.1		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	116		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	18700		200	87.6	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: SW-MRB-03-081916 (Continued) — Lab Sample ID: 460-118951-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	4310		200	68.4	ug/L	2		6020A	Dissolved
Potassium	642		200	74.8	ug/L	2		6020A	Dissolved
Calcium	12300		200	69.5	ug/L	2		6020A	Dissolved
Iron	219		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	28.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	28.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SW-MRB-02-081916 — Lab Sample ID: 460-118951-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.39	J	1.0	0.25	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	1.7	J	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	3.1		2.1	0.75	ug/L	1		8270D	Total/NA
Chloride	2.54		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	3.48		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	15.0		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	697		8.0	3.0	ug/L	2		6020A	Total/NA
Lead	0.68	J	1.2	0.44	ug/L	2		6020A	Total/NA
Vanadium	1.4	J	4.0	1.4	ug/L	2		6020A	Total/NA
Zinc	12.8	J	16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	135		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3040		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	2100		200	68.4	ug/L	2		6020A	Total/NA
Potassium	276		200	74.8	ug/L	2		6020A	Total/NA
Calcium	6350		200	69.5	ug/L	2		6020A	Total/NA
Iron	3580		120	49.1	ug/L	2		6020A	Total/NA
Barium	11.1		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	110		8.0	3.0	ug/L	2		6020A	Dissolved
Aluminum	15.1	J	40.0	13.5	ug/L	2		6020A	Dissolved
Sodium	3030		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	2030		200	68.4	ug/L	2		6020A	Dissolved
Potassium	250		200	74.8	ug/L	2		6020A	Dissolved
Calcium	5810		200	69.5	ug/L	2		6020A	Dissolved
Iron	834		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	31.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	31.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: FB-03-081916 — Lab Sample ID: 460-118951-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.3		5.0	1.1	ug/L	1		8260C	Total/NA
Methylene Chloride	1.4		1.0	0.21	ug/L	1		8260C	Total/NA
Chloride	0.21		0.12	0.030	mg/L	1		9056A	Total/NA

Client Sample ID: TB-04-081916 — Lab Sample ID: 460-118951-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	8.4		5.0	1.1	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SC-1-081916
Date Collected: 08/19/16 11:35
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-1
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 10:41	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 10:41	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 10:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*08/25/16 10:41*	*1*
4-Bromofluorobenzene	*96*		*70 - 130*		*08/25/16 10:41*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 03:31	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 03:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 03:31	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 03:31	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 03:31	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 03:31	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 03:31	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 03:31	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 03:31	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 03:31	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 03:31	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 03:31	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 03:31	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 03:31	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 03:31	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 03:31	1
Acetone	1.1	U	5.0	1.1	ug/L			08/24/16 03:31	1
Benzene	**1.8**		1.0	0.090	ug/L			08/24/16 03:31	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 03:31	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 03:31	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 03:31	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 03:31	1
Chlorobenzene	**0.35**	**J**	1.0	0.24	ug/L			08/24/16 03:31	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 03:31	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 03:31	1
Chloroethane	**2.0**		1.0	0.37	ug/L			08/24/16 03:31	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 03:31	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 03:31	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 03:31	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 03:31	1
Cyclohexane	**2.5**		1.0	0.26	ug/L			08/24/16 03:31	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 03:31	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 03:31	1
Ethylbenzene	**1.5**		1.0	0.30	ug/L			08/24/16 03:31	1
Isopropylbenzene	**2.0**		1.0	0.32	ug/L			08/24/16 03:31	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 03:31	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 03:31	1
Methylcyclohexane	**1.9**		1.0	0.22	ug/L			08/24/16 03:31	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 03:31	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 03:31	1

Client Sample ID: SC-1-081916
Date Collected: 08/19/16 11:35
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 03:31	1
Toluene	**0.38**	**J**	1.0	0.25	ug/L			08/24/16 03:31	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 03:31	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 03:31	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 03:31	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 03:31	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 03:31	1
Xylenes, Total	**64**		2.0	0.28	ug/L			08/24/16 03:31	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzene, 1,2,4-trimethyl-	*8.3*	*J N*	*ug/L*		*9.63*	*95-63-6*		*08/24/16 03:31*	*1*
Benzene, 1,2,3-trimethyl-	*6.6*	*J N*	*ug/L*		*10.31*	*526-73-8*		*08/24/16 03:31*	*1*
Benzene, 1-ethyl-2,3-dimethyl-	*8.8*	*J N*	*ug/L*		*11.33*	*933-98-2*		*08/24/16 03:31*	*1*
Benzene, 1,2,4,5-tetramethyl-	*7.0*	*J N*	*ug/L*		*11.79*	*95-93-2*		*08/24/16 03:31*	*1*
Benzene, 1,2,3,5-tetramethyl-	*11*	*J N*	*ug/L*		*11.84*	*527-53-7*		*08/24/16 03:31*	*1*
3-Phenylbut-1-ene	*6.4*	*J N*	*ug/L*		*12.15*	*934-10-1*		*08/24/16 03:31*	*1*
Benzene, 1,2,3,4-tetramethyl-	*6.2*	*J N*	*ug/L*		*12.19*	*488-23-3*		*08/24/16 03:31*	*1*
Naphthalene	*8.8*	*J N*	*ug/L*		*12.69*	*91-20-3*		*08/24/16 03:31*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*70 - 130*		*08/24/16 03:31*	*1*
4-Bromofluorobenzene	*105*		*70 - 130*		*08/24/16 03:31*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 130*		*08/24/16 03:31*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*08/24/16 03:31*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U *	0.052	0.039	ug/L		08/24/16 12:24	08/31/16 09:39	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/24/16 12:24	08/31/16 09:39	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/24/16 12:24	08/31/16 09:39	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 09:39	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/24/16 12:24	08/31/16 09:39	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 09:39	1
Indeno[1,2,3-cd]pyrene	0.028	U *	0.052	0.028	ug/L		08/24/16 12:24	08/31/16 09:39	1
Pentachlorophenol	**0.11**	**J**	0.21	0.080	ug/L		08/24/16 12:24	08/31/16 09:39	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 17:08	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 17:08	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 17:08	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 17:08	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 17:08	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/24/16 12:24	08/30/16 17:08	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 17:08	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/24/16 12:24	08/30/16 17:08	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/24/16 12:24	08/30/16 17:08	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/24/16 12:24	08/30/16 17:08	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/24/16 12:24	08/30/16 17:08	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/24/16 12:24	08/30/16 17:08	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SC-1-081916
Date Collected: 08/19/16 11:35
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/24/16 12:24	08/30/16 17:08	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/24/16 12:24	08/30/16 17:08	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/24/16 12:24	08/30/16 17:08	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/24/16 12:24	08/30/16 17:08	1
Isophorone	0.70	U	10	0.70	ug/L		08/24/16 12:24	08/30/16 17:08	1
Naphthalene	**5.9**	**J**	10	0.83	ug/L		08/24/16 12:24	08/30/16 17:08	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 17:08	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/24/16 12:24	08/30/16 17:08	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 17:08	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 17:08	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 17:08	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 17:08	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 17:08	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 17:08	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/24/16 12:24	08/30/16 17:08	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 17:08	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 17:08	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 17:08	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/24/16 12:24	08/30/16 17:08	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 17:08	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 17:08	1
Fluorene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 17:08	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/24/16 12:24	08/30/16 17:08	1
N-Nitrosodiphenylamine	**1.1**	**J**	10	0.77	ug/L		08/24/16 12:24	08/30/16 17:08	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 17:08	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 17:08	1
Anthracene	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 17:08	1
Carbazole	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 17:08	1
Di-n-butyl phthalate	**0.89**	**J**	10	0.85	ug/L		08/24/16 12:24	08/30/16 17:08	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 17:08	1
Pyrene	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 17:08	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 17:08	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/24/16 12:24	08/30/16 17:08	1
Bis(2-ethylhexyl) phthalate	**1.2**	**J**	2.1	0.75	ug/L		08/24/16 12:24	08/30/16 17:08	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 17:08	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/24/16 12:24	08/30/16 17:08	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/24/16 12:24	08/30/16 17:08	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 17:08	1
Acetophenone	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 17:08	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/24/16 12:24	08/30/16 17:08	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 17:08	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/24/16 12:24	08/30/16 17:08	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/24/16 12:24	08/30/16 17:08	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/24/16 12:24	08/30/16 17:08	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 17:08	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 17:08	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 17:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*78*		*30 - 130*	*08/24/16 12:24*	*08/30/16 17:08*	*1*

Client Sample ID: SC-1-081916

Date Collected: 08/19/16 11:35
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-1

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d5 (Surr)	*20*		*15 - 110*	*08/24/16 12:24*	*08/30/16 17:08*	*1*
Terphenyl-d14 (Surr)	*100*		*30 - 130*	*08/24/16 12:24*	*08/30/16 17:08*	*1*
2,4,6-Tribromophenol (Surr)	*106*		*15 - 110*	*08/24/16 12:24*	*08/30/16 17:08*	*1*
2-Fluorophenol (Surr)	*40*		*15 - 110*	*08/24/16 12:24*	*08/30/16 17:08*	*1*
2-Fluorobiphenyl	*84*		*30 - 130*	*08/24/16 12:24*	*08/30/16 17:08*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:25	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:25	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:25	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:25	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:25	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:25	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 09:25	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 09:25	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 09:25	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 09:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	*52*	*p*	*30 - 150*	*08/24/16 19:43*	*08/25/16 09:25*	*1*
Tetrachloro-m-xylene	*93*		*30 - 150*	*08/24/16 19:43*	*08/25/16 09:25*	*1*
DCB Decachlorobiphenyl	*67*		*30 - 150*	*08/24/16 19:43*	*08/25/16 09:25*	*1*
DCB Decachlorobiphenyl	*96*		*30 - 150*	*08/24/16 19:43*	*08/25/16 09:25*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	0.11	U	0.60	0.11	mg/L			08/24/16 23:59	1

Method: 9056A - Anions, Ion Chromatography - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.41**	**D**	1.20	0.30	mg/L			08/25/16 16:43	10

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/28/16 17:27	09/01/16 04:56	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/28/16 17:27	09/01/16 04:56	2
Barium	**429**		4.0	1.5	ug/L		08/28/16 17:27	09/01/16 04:56	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/28/16 17:27	09/01/16 04:56	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/28/16 17:27	09/01/16 04:56	2
Cobalt	**3.4**	**J**	4.0	1.5	ug/L		08/28/16 17:27	09/01/16 04:56	2
Chromium	**3.5**	**J**	4.0	1.5	ug/L		08/28/16 17:27	09/01/16 04:56	2
Copper	1.6	U	4.0	1.6	ug/L		08/28/16 17:27	09/01/16 04:56	2
Manganese	**839**		8.0	3.0	ug/L		08/28/16 17:27	09/01/16 04:56	2
Nickel	**13.2**		4.0	1.6	ug/L		08/28/16 17:27	09/01/16 04:56	2
Lead	**7.9**		1.2	0.44	ug/L		08/28/16 17:27	09/01/16 04:56	2
Antimony	0.76	U	2.0	0.76	ug/L		08/28/16 17:27	09/01/16 04:56	2
Selenium	0.79	U	10.0	0.79	ug/L		08/28/16 17:27	09/01/16 04:56	2
Vanadium	**2.6**	**J**	4.0	1.4	ug/L		08/28/16 17:27	09/01/16 04:56	2
Zinc	**18.3**		16.0	6.5	ug/L		08/28/16 17:27	09/01/16 04:56	2

Client Sample ID: SC-1-081916
Date Collected: 08/19/16 11:35
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-1
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**50.0**		40.0	13.5	ug/L		08/28/16 17:27	09/01/16 04:56	2
Sodium	**4000**		200	87.6	ug/L		08/28/16 17:27	09/01/16 21:40	2
Magnesium	**4720**		200	68.4	ug/L		08/28/16 17:27	09/01/16 04:56	2
Potassium	**2610**		200	74.8	ug/L		08/28/16 17:27	09/01/16 04:56	2
Calcium	**43600**		200	69.5	ug/L		08/28/16 17:27	09/01/16 04:56	2
Iron	**77200**		120	49.1	ug/L		08/28/16 17:27	09/01/16 04:56	2
Thallium	0.31	U	0.80	0.31	ug/L		08/28/16 17:27	09/01/16 04:56	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:46	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:47	09/01/16 20:46	2
Barium	**360**		4.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:46	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:47	09/01/16 20:46	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:47	09/01/16 20:46	2
Cobalt	**3.2**	**J**	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:46	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:46	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 20:46	2
Manganese	**764**		8.0	3.0	ug/L		08/29/16 14:47	09/01/16 20:46	2
Nickel	**27.6**		4.0	1.6	ug/L		08/29/16 14:47	09/01/16 20:46	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:47	09/01/16 20:46	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:47	09/01/16 20:46	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:47	09/01/16 20:46	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:47	09/01/16 20:46	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:47	09/01/16 20:46	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 14:47	09/01/16 20:46	2
Sodium	**3960**		200	87.6	ug/L		08/29/16 14:47	09/01/16 20:46	2
Magnesium	**4820**		200	68.4	ug/L		08/29/16 14:47	09/01/16 20:46	2
Potassium	**2530**		200	74.8	ug/L		08/29/16 14:47	09/01/16 20:46	2
Calcium	**42900**		200	69.5	ug/L		08/29/16 14:47	09/01/16 20:46	2
Iron	**44600**		120	49.1	ug/L		08/29/16 14:47	09/01/16 20:46	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:47	09/01/16 20:46	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:16	08/25/16 15:19	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0031**	**J**	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:37	1
Bicarbonate Alkalinity as CaCO3	**171**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**171**		5.0	5.0	mg/L			09/02/16 09:00	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-11-081916
Date Collected: 08/19/16 08:25
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-2
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 11:07	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 11:07	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 11:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/25/16 11:07*	*1*
4-Bromofluorobenzene	*93*		*70 - 130*		*08/25/16 11:07*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 02:48	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 02:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 02:48	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 02:48	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 02:48	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 02:48	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 02:48	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 02:48	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 02:48	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 02:48	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 02:48	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 02:48	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 02:48	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 02:48	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 02:48	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 02:48	1
Acetone	1.1	U	5.0	1.1	ug/L			08/25/16 02:48	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 02:48	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 02:48	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 02:48	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 02:48	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 02:48	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 02:48	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 02:48	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 02:48	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 02:48	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 02:48	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 02:48	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 02:48	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 02:48	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 02:48	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 02:48	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 02:48	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 02:48	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 02:48	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 02:48	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 02:48	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 02:48	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 02:48	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 02:48	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-11-081916
Date Collected: 08/19/16 08:25
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 02:48	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 02:48	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 02:48	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 02:48	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 02:48	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 02:48	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 02:48	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 02:48	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 02:48*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*08/25/16 02:48*	*1*
4-Bromofluorobenzene	*106*		*70 - 130*		*08/25/16 02:48*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*08/25/16 02:48*	*1*
Toluene-d8 (Surr)	*90*		*70 - 130*		*08/25/16 02:48*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U *	0.050	0.037	ug/L		08/24/16 12:24	08/31/16 10:08	1
Benzo[a]pyrene	0.026	U *	0.050	0.026	ug/L		08/24/16 12:24	08/31/16 10:08	1
Benzo[b]fluoranthene	0.012	U *	0.050	0.012	ug/L		08/24/16 12:24	08/31/16 10:08	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/24/16 12:24	08/31/16 10:08	1
Dibenz(a,h)anthracene	0.022	U *	0.050	0.022	ug/L		08/24/16 12:24	08/31/16 10:08	1
Hexachlorobenzene	0.0090	U *	0.020	0.0090	ug/L		08/24/16 12:24	08/31/16 10:08	1
Indeno[1,2,3-cd]pyrene	0.027	U *	0.050	0.027	ug/L		08/24/16 12:24	08/31/16 10:08	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/24/16 12:24	08/31/16 10:08	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/24/16 12:24	08/30/16 17:28	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/24/16 12:24	08/30/16 17:28	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 17:28	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/24/16 12:24	08/30/16 17:28	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 17:28	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 17:28	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 17:28	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 17:28	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		08/24/16 12:24	08/30/16 17:28	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/24/16 12:24	08/30/16 17:28	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/24/16 12:24	08/30/16 17:28	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/24/16 12:24	08/30/16 17:28	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/24/16 12:24	08/30/16 17:28	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/24/16 12:24	08/30/16 17:28	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/24/16 12:24	08/30/16 17:28	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/24/16 12:24	08/30/16 17:28	1
Isophorone	0.67	U	10	0.67	ug/L		08/24/16 12:24	08/30/16 17:28	1
Naphthalene	0.80	U	10	0.80	ug/L		08/24/16 12:24	08/30/16 17:28	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/24/16 12:24	08/30/16 17:28	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-11-081916
Date Collected: 08/19/16 08:25
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/24/16 12:24	08/30/16 17:28	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/24/16 12:24	08/30/16 17:28	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 17:28	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 17:28	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/24/16 12:24	08/30/16 17:28	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/24/16 12:24	08/30/16 17:28	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/24/16 12:24	08/30/16 17:28	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/24/16 12:24	08/30/16 17:28	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/24/16 12:24	08/30/16 17:28	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/24/16 12:24	08/30/16 17:28	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 17:28	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/24/16 12:24	08/30/16 17:28	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 17:28	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/24/16 12:24	08/30/16 17:28	1
Fluorene	0.80	U	10	0.80	ug/L		08/24/16 12:24	08/30/16 17:28	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/24/16 12:24	08/30/16 17:28	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/24/16 12:24	08/30/16 17:28	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 17:28	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/24/16 12:24	08/30/16 17:28	1
Anthracene	0.57	U	10	0.57	ug/L		08/24/16 12:24	08/30/16 17:28	1
Carbazole	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 17:28	1
Di-n-butyl phthalate	0.82	U	10	0.82	ug/L		08/24/16 12:24	08/30/16 17:28	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 17:28	1
Pyrene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 17:28	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/24/16 12:24	08/30/16 17:28	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/24/16 12:24	08/30/16 17:28	1
Bis(2-ethylhexyl) phthalate	0.72	U	2.0	0.72	ug/L		08/24/16 12:24	08/30/16 17:28	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/24/16 12:24	08/30/16 17:28	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/24/16 12:24	08/30/16 17:28	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 17:28	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 17:28	1
Acetophenone	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 17:28	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 17:28	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 17:28	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/24/16 12:24	08/30/16 17:28	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/24/16 12:24	08/30/16 17:28	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 17:28	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/24/16 12:24	08/30/16 17:28	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 17:28	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/24/16 12:24	08/30/16 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*86*		*30 - 130*	*08/24/16 12:24*	*08/30/16 17:28*	*1*
Phenol-d5 (Surr)	*27*		*15 - 110*	*08/24/16 12:24*	*08/30/16 17:28*	*1*
Terphenyl-d14 (Surr)	*96*		*30 - 130*	*08/24/16 12:24*	*08/30/16 17:28*	*1*
2,4,6-Tribromophenol (Surr)	*99*		*15 - 110*	*08/24/16 12:24*	*08/30/16 17:28*	*1*
2-Fluorophenol (Surr)	*44*		*15 - 110*	*08/24/16 12:24*	*08/30/16 17:28*	*1*
2-Fluorobiphenyl	*85*		*30 - 130*	*08/24/16 12:24*	*08/30/16 17:28*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-11-081916
Date Collected: 08/19/16 08:25
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-2
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:43	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:43	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:43	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:43	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:43	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 09:43	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 09:43	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 09:43	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 09:43	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 09:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*92*		*30 - 150*	*08/24/16 19:43*	*08/25/16 09:43*	*1*
Tetrachloro-m-xylene	*91*		*30 - 150*	*08/24/16 19:43*	*08/25/16 09:43*	*1*
DCB Decachlorobiphenyl	*116*		*30 - 150*	*08/24/16 19:43*	*08/25/16 09:43*	*1*
DCB Decachlorobiphenyl	*117*		*30 - 150*	*08/24/16 19:43*	*08/25/16 09:43*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.00**		0.12	0.030	mg/L			08/25/16 00:18	1
Sulfate	**5.68**		0.60	0.11	mg/L			08/25/16 00:18	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:13	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/28/16 17:27	09/01/16 05:13	2
Barium	**10.3**		4.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:13	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/28/16 17:27	09/01/16 05:13	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/28/16 17:27	09/01/16 05:13	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:13	2
Chromium	1.5	U	4.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:13	2
Copper	1.6	U	4.0	1.6	ug/L		08/28/16 17:27	09/01/16 05:13	2
Manganese	**128**		8.0	3.0	ug/L		08/28/16 17:27	09/01/16 05:13	2
Nickel	1.6	U	4.0	1.6	ug/L		08/28/16 17:27	09/01/16 05:13	2
Lead	0.44	U	1.2	0.44	ug/L		08/28/16 17:27	09/01/16 05:13	2
Antimony	0.76	U	2.0	0.76	ug/L		08/28/16 17:27	09/01/16 05:13	2
Selenium	0.79	U	10.0	0.79	ug/L		08/28/16 17:27	09/01/16 05:13	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/28/16 17:27	09/01/16 05:13	2
Zinc	6.5	U	16.0	6.5	ug/L		08/28/16 17:27	09/01/16 05:13	2
Aluminum	**14.0**	**J**	40.0	13.5	ug/L		08/28/16 17:27	09/01/16 05:13	2
Sodium	**4420**		200	87.6	ug/L		08/28/16 17:27	09/01/16 21:51	2
Magnesium	**3310**		200	68.4	ug/L		08/28/16 17:27	09/01/16 05:13	2
Potassium	**630**		200	74.8	ug/L		08/28/16 17:27	09/01/16 05:13	2
Calcium	**11500**		200	69.5	ug/L		08/28/16 17:27	09/01/16 05:13	2
Iron	**422**		120	49.1	ug/L		08/28/16 17:27	09/01/16 05:13	2
Thallium	0.31	U	0.80	0.31	ug/L		08/28/16 17:27	09/01/16 05:13	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:51	2

Client Sample ID: SW-11-081916

Lab Sample ID: 460-118951-2

Date Collected: 08/19/16 08:25

Matrix: Water

Date Received: 08/19/16 18:00

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:47	09/01/16 20:51	2
Barium	**9.6**		4.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:51	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:47	09/01/16 20:51	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:47	09/01/16 20:51	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:51	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:51	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 20:51	2
Manganese	**84.2**		8.0	3.0	ug/L		08/29/16 14:47	09/01/16 20:51	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 20:51	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:47	09/01/16 20:51	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:47	09/01/16 20:51	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:47	09/01/16 20:51	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:47	09/01/16 20:51	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:47	09/01/16 20:51	2
Aluminum	**16.8**	**J**	40.0	13.5	ug/L		08/29/16 14:47	09/01/16 20:51	2
Sodium	**4250**		200	87.6	ug/L		08/29/16 14:47	09/01/16 20:51	2
Magnesium	**3400**		200	68.4	ug/L		08/29/16 14:47	09/01/16 20:51	2
Potassium	**598**		200	74.8	ug/L		08/29/16 14:47	09/01/16 20:51	2
Calcium	**11300**		200	69.5	ug/L		08/29/16 14:47	09/01/16 20:51	2
Iron	**242**		120	49.1	ug/L		08/29/16 14:47	09/01/16 20:51	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:47	09/01/16 20:51	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:16	08/25/16 15:21	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:38	1
Bicarbonate Alkalinity as CaCO3	**40.2**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**40.2**		5.0	5.0	mg/L			09/02/16 09:00	1

Client Sample ID: SW-PAB-00-081916

Lab Sample ID: 460-118951-3

Date Collected: 08/19/16 07:55

Matrix: Water

Date Received: 08/19/16 18:00

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 11:32	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 11:32	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 11:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*08/25/16 11:32*	*1*
4-Bromofluorobenzene	*93*		*70 - 130*		*08/25/16 11:32*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-PAB-00-081916
Date Collected: 08/19/16 07:55
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 03:58	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 03:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 03:58	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 03:58	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 03:58	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 03:58	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 03:58	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 03:58	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 03:58	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 03:58	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 03:58	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 03:58	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 03:58	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 03:58	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 03:58	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 03:58	1
Acetone	**4.6**	**J**	5.0	1.1	ug/L			08/24/16 03:58	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 03:58	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 03:58	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 03:58	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 03:58	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 03:58	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 03:58	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 03:58	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 03:58	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 03:58	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 03:58	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 03:58	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 03:58	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 03:58	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 03:58	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 03:58	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 03:58	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 03:58	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 03:58	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 03:58	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 03:58	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 03:58	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 03:58	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 03:58	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 03:58	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 03:58	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 03:58	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 03:58	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 03:58	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 03:58	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 03:58	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 03:58	1

Client Sample ID: SW-PAB-00-081916
Date Collected: 08/19/16 07:55
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-3
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/24/16 03:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		08/24/16 03:58	1
4-Bromofluorobenzene	107		70 - 130		08/24/16 03:58	1
Dibromofluoromethane (Surr)	104		70 - 130		08/24/16 03:58	1
Toluene-d8 (Surr)	93		70 - 130		08/24/16 03:58	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U *	0.052	0.039	ug/L		08/24/16 12:24	08/31/16 10:37	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/24/16 12:24	08/31/16 10:37	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/24/16 12:24	08/31/16 10:37	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 10:37	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/24/16 12:24	08/31/16 10:37	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 10:37	1
Indeno[1,2,3-cd]pyrene	0.028	U *	0.052	0.028	ug/L		08/24/16 12:24	08/31/16 10:37	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/24/16 12:24	08/31/16 10:37	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 17:48	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 17:48	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 17:48	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 17:48	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 17:48	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/24/16 12:24	08/30/16 17:48	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 17:48	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/24/16 12:24	08/30/16 17:48	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/24/16 12:24	08/30/16 17:48	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/24/16 12:24	08/30/16 17:48	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/24/16 12:24	08/30/16 17:48	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/24/16 12:24	08/30/16 17:48	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/24/16 12:24	08/30/16 17:48	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/24/16 12:24	08/30/16 17:48	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/24/16 12:24	08/30/16 17:48	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/24/16 12:24	08/30/16 17:48	1
Isophorone	0.70	U	10	0.70	ug/L		08/24/16 12:24	08/30/16 17:48	1
Naphthalene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 17:48	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 17:48	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/24/16 12:24	08/30/16 17:48	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 17:48	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 17:48	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 17:48	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 17:48	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 17:48	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 17:48	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/24/16 12:24	08/30/16 17:48	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 17:48	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 17:48	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 17:48	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-PAB-00-081916
Date Collected: 08/19/16 07:55
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/24/16 12:24	08/30/16 17:48	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 17:48	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 17:48	1
Fluorene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 17:48	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/24/16 12:24	08/30/16 17:48	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 17:48	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 17:48	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 17:48	1
Anthracene	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 17:48	1
Carbazole	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 17:48	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 17:48	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 17:48	1
Pyrene	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 17:48	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 17:48	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/24/16 12:24	08/30/16 17:48	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/24/16 12:24	08/30/16 17:48	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 17:48	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/24/16 12:24	08/30/16 17:48	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/24/16 12:24	08/30/16 17:48	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 17:48	1
Acetophenone	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 17:48	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/24/16 12:24	08/30/16 17:48	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 17:48	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/24/16 12:24	08/30/16 17:48	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/24/16 12:24	08/30/16 17:48	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/24/16 12:24	08/30/16 17:48	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 17:48	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 17:48	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 17:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*94*		*30 - 130*	*08/24/16 12:24*	*08/30/16 17:48*	*1*
Phenol-d5 (Surr)	*24*		*15 - 110*	*08/24/16 12:24*	*08/30/16 17:48*	*1*
Terphenyl-d14 (Surr)	*94*		*30 - 130*	*08/24/16 12:24*	*08/30/16 17:48*	*1*
2,4,6-Tribromophenol (Surr)	*114*	*X*	*15 - 110*	*08/24/16 12:24*	*08/30/16 17:48*	*1*
2-Fluorophenol (Surr)	*56*		*15 - 110*	*08/24/16 12:24*	*08/30/16 17:48*	*1*
2-Fluorobiphenyl	*95*		*30 - 130*	*08/24/16 12:24*	*08/30/16 17:48*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:01	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:01	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:01	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:01	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:01	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:01	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:01	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:01	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:01	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:01	1

Client Sample ID: SW-PAB-00-081916

Date Collected: 08/19/16 07:55
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-3

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*30 - 150*	*08/24/16 19:43*	*08/25/16 10:01*	*1*
Tetrachloro-m-xylene	*78*		*30 - 150*	*08/24/16 19:43*	*08/25/16 10:01*	*1*
DCB Decachlorobiphenyl	*108*		*30 - 150*	*08/24/16 19:43*	*08/25/16 10:01*	*1*
DCB Decachlorobiphenyl	*109*		*30 - 150*	*08/24/16 19:43*	*08/25/16 10:01*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.69**		0.12	0.030	mg/L			08/25/16 00:36	1
Sulfate	**6.39**		0.60	0.11	mg/L			08/25/16 00:36	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:37	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/28/16 17:27	09/01/16 05:37	2
Barium	**11.3**		4.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:37	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/28/16 17:27	09/01/16 05:37	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/28/16 17:27	09/01/16 05:37	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:37	2
Chromium	1.5	U	4.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:37	2
Copper	1.6	U	4.0	1.6	ug/L		08/28/16 17:27	09/01/16 05:37	2
Manganese	**42.5**		8.0	3.0	ug/L		08/28/16 17:27	09/01/16 05:37	2
Nickel	1.6	U	4.0	1.6	ug/L		08/28/16 17:27	09/01/16 05:37	2
Lead	0.44	U	1.2	0.44	ug/L		08/28/16 17:27	09/01/16 05:37	2
Antimony	0.76	U	2.0	0.76	ug/L		08/28/16 17:27	09/01/16 05:37	2
Selenium	0.79	U	10.0	0.79	ug/L		08/28/16 17:27	09/01/16 05:37	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/28/16 17:27	09/01/16 05:37	2
Zinc	6.5	U	16.0	6.5	ug/L		08/28/16 17:27	09/01/16 05:37	2
Aluminum	**27.6**	**J**	40.0	13.5	ug/L		08/28/16 17:27	09/01/16 05:37	2
Sodium	**4900**		200	87.6	ug/L		08/28/16 17:27	09/01/16 21:57	2
Magnesium	**3710**		200	68.4	ug/L		08/28/16 17:27	09/01/16 05:37	2
Potassium	**671**		200	74.8	ug/L		08/28/16 17:27	09/01/16 05:37	2
Calcium	**12600**		200	69.5	ug/L		08/28/16 17:27	09/01/16 05:37	2
Iron	**78.7**	**J**	120	49.1	ug/L		08/28/16 17:27	09/01/16 05:37	2
Thallium	0.31	U	0.80	0.31	ug/L		08/28/16 17:27	09/01/16 05:37	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:57	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:47	09/01/16 20:57	2
Barium	**10.6**		4.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:57	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:47	09/01/16 20:57	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:47	09/01/16 20:57	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:57	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:57	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 20:57	2
Manganese	**14.9**		8.0	3.0	ug/L		08/29/16 14:47	09/01/16 20:57	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 20:57	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:47	09/01/16 20:57	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:47	09/01/16 20:57	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:47	09/01/16 20:57	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:47	09/01/16 20:57	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-PAB-00-081916

Lab Sample ID: 460-118951-3

Date Collected: 08/19/16 07:55

Matrix: Water

Date Received: 08/19/16 18:00

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:47	09/01/16 20:57	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 14:47	09/01/16 20:57	2
Sodium	**4860**		200	87.6	ug/L		08/29/16 14:47	09/01/16 20:57	2
Magnesium	**3770**		200	68.4	ug/L		08/29/16 14:47	09/01/16 20:57	2
Potassium	**662**		200	74.8	ug/L		08/29/16 14:47	09/01/16 20:57	2
Calcium	**12300**		200	69.5	ug/L		08/29/16 14:47	09/01/16 20:57	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 14:47	09/01/16 20:57	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:47	09/01/16 20:57	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:16	08/25/16 15:26	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:39	1
Bicarbonate Alkalinity as CaCO3	**40.2**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**40.2**		5.0	5.0	mg/L			09/02/16 09:00	1

Client Sample ID: SR3-Pond-081916

Lab Sample ID: 460-118951-4

Date Collected: 08/19/16 10:35

Matrix: Water

Date Received: 08/19/16 18:00

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 11:57	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 11:57	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 11:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*08/25/16 11:57*	*1*
4-Bromofluorobenzene	*102*		*70 - 130*		*08/25/16 11:57*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 03:04	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 03:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 03:04	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 03:04	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 03:04	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 03:04	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 03:04	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 03:04	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 03:04	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 03:04	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 03:04	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 03:04	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SR3-Pond-081916
Date Collected: 08/19/16 10:35
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 03:04	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 03:04	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 03:04	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 03:04	1
Acetone	**5.5**		5.0	1.1	ug/L			08/24/16 03:04	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 03:04	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 03:04	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 03:04	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 03:04	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 03:04	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 03:04	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 03:04	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 03:04	1
Chloroethane	0.37	U F1	1.0	0.37	ug/L			08/24/16 03:04	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 03:04	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 03:04	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 03:04	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 03:04	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 03:04	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 03:04	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 03:04	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 03:04	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 03:04	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 03:04	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 03:04	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 03:04	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 03:04	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 03:04	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 03:04	1
Toluene	**0.36**	**J**	1.0	0.25	ug/L			08/24/16 03:04	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 03:04	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 03:04	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 03:04	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 03:04	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 03:04	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 03:04	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 03:04*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*08/24/16 03:04*	*1*
4-Bromofluorobenzene	*120*		*70 - 130*		*08/24/16 03:04*	*1*
Dibromofluoromethane (Surr)	*117*		*70 - 130*		*08/24/16 03:04*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*08/24/16 03:04*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U *	0.052	0.039	ug/L		08/24/16 12:24	08/31/16 16:28	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/24/16 12:24	08/31/16 16:28	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SR3-Pond-081916
Date Collected: 08/19/16 10:35
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-4
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/24/16 12:24	08/31/16 16:28	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 16:28	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/24/16 12:24	08/31/16 16:28	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 16:28	1
Indeno[1,2,3-cd]pyrene	0.028	U *	0.052	0.028	ug/L		08/24/16 12:24	08/31/16 16:28	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/24/16 12:24	08/31/16 16:28	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 16:09	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 16:09	1
2-Methylphenol	1.3	U F1	10	1.3	ug/L		08/24/16 12:24	08/30/16 16:09	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 16:09	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 16:09	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/24/16 12:24	08/30/16 16:09	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 16:09	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/24/16 12:24	08/30/16 16:09	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/24/16 12:24	08/30/16 16:09	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/24/16 12:24	08/30/16 16:09	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/24/16 12:24	08/30/16 16:09	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/24/16 12:24	08/30/16 16:09	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/24/16 12:24	08/30/16 16:09	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/24/16 12:24	08/30/16 16:09	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/24/16 12:24	08/30/16 16:09	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/24/16 12:24	08/30/16 16:09	1
Isophorone	0.70	U	10	0.70	ug/L		08/24/16 12:24	08/30/16 16:09	1
Naphthalene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 16:09	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 16:09	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/24/16 12:24	08/30/16 16:09	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 16:09	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 16:09	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 16:09	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 16:09	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 16:09	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 16:09	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/24/16 12:24	08/30/16 16:09	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 16:09	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 16:09	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 16:09	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/24/16 12:24	08/30/16 16:09	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 16:09	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 16:09	1
Fluorene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 16:09	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/24/16 12:24	08/30/16 16:09	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 16:09	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 16:09	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 16:09	1
Anthracene	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 16:09	1
Carbazole	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 16:09	1
Di-n-butyl phthalate	**1.3**	**J**	10	0.85	ug/L		08/24/16 12:24	08/30/16 16:09	1

Client Sample ID: SR3-Pond-081916
Date Collected: 08/19/16 10:35
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 16:09	1
Pyrene	0.86	U F2	10	0.86	ug/L		08/24/16 12:24	08/30/16 16:09	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 16:09	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/24/16 12:24	08/30/16 16:09	1
Bis(2-ethylhexyl) phthalate	**1.5**	**J**	2.1	0.75	ug/L		08/24/16 12:24	08/30/16 16:09	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 16:09	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/24/16 12:24	08/30/16 16:09	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/24/16 12:24	08/30/16 16:09	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 16:09	1
Acetophenone	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 16:09	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/24/16 12:24	08/30/16 16:09	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 16:09	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/24/16 12:24	08/30/16 16:09	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/24/16 12:24	08/30/16 16:09	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/24/16 12:24	08/30/16 16:09	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 16:09	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 16:09	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*99*		*30 - 130*	*08/24/16 12:24*	*08/30/16 16:09*	*1*
Phenol-d5 (Surr)	*27*		*15 - 110*	*08/24/16 12:24*	*08/30/16 16:09*	*1*
Terphenyl-d14 (Surr)	*94*		*30 - 130*	*08/24/16 12:24*	*08/30/16 16:09*	*1*
2,4,6-Tribromophenol (Surr)	*117*	*X*	*15 - 110*	*08/24/16 12:24*	*08/30/16 16:09*	*1*
2-Fluorophenol (Surr)	*39*		*15 - 110*	*08/24/16 12:24*	*08/30/16 16:09*	*1*
2-Fluorobiphenyl	*89*		*30 - 130*	*08/24/16 12:24*	*08/30/16 16:09*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 08:13	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 08:13	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 08:13	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 08:13	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 08:13	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 08:13	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 08:13	1
PCB-1260	0.084	U F1	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 08:13	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 08:13	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 08:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*78*		*30 - 150*	*08/24/16 19:43*	*08/25/16 08:13*	*1*
Tetrachloro-m-xylene	*82*		*30 - 150*	*08/24/16 19:43*	*08/25/16 08:13*	*1*
DCB Decachlorobiphenyl	*95*		*30 - 150*	*08/24/16 19:43*	*08/25/16 08:13*	*1*
DCB Decachlorobiphenyl	*92*		*30 - 150*	*08/24/16 19:43*	*08/25/16 08:13*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.09**		0.12	0.030	mg/L			08/25/16 00:54	1
Sulfate	**0.83**		0.60	0.11	mg/L			08/25/16 00:54	1

Client Sample ID: SR3-Pond-081916
Date Collected: 08/19/16 10:35
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-4
Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:28	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 19:31	2
Barium	**116**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:28	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 19:28	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 19:28	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:28	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:28	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:28	2
Manganese	**577**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 19:28	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:28	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 19:28	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 19:28	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 19:31	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 19:28	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 19:28	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 21:49	08/28/16 19:28	2
Sodium	**4310**		200	87.6	ug/L		08/26/16 21:49	08/28/16 19:28	2
Magnesium	**4780**		200	68.4	ug/L		08/26/16 21:49	08/28/16 19:28	2
Potassium	**1910**		200	74.8	ug/L		08/26/16 21:49	08/28/16 19:28	2
Calcium	**28700**		200	69.5	ug/L		08/26/16 21:49	08/28/16 19:28	2
Iron	**1350**		120	49.1	ug/L		08/26/16 21:49	08/28/16 19:28	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 19:28	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:34	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:47	09/01/16 20:34	2
Barium	**94.1**		4.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:34	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:47	09/01/16 20:34	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:47	09/01/16 20:34	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:34	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:34	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 20:34	2
Manganese	**4.1**	**J**	8.0	3.0	ug/L		08/29/16 14:47	09/01/16 20:34	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 20:34	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:47	09/01/16 20:34	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:47	09/01/16 20:34	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:47	09/01/16 20:34	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:47	09/01/16 20:34	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:47	09/01/16 20:34	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 14:47	09/01/16 20:34	2
Sodium	**5970**		200	87.6	ug/L		08/29/16 14:47	09/01/16 20:34	2
Magnesium	**4760**		200	68.4	ug/L		08/29/16 14:47	09/01/16 20:34	2
Potassium	**1880**		200	74.8	ug/L		08/29/16 14:47	09/01/16 20:34	2
Calcium	**29300**		200	69.5	ug/L		08/29/16 14:47	09/01/16 20:34	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 14:47	09/01/16 20:34	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:47	09/01/16 20:34	2

Client Sample ID: SR3-Pond-081916

Lab Sample ID: 460-118951-4

Date Collected: 08/19/16 10:35

Matrix: Water

Date Received: 08/19/16 18:00

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:16	08/25/16 14:49	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 15:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0020**	**J**	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:35	1
Bicarbonate Alkalinity as CaCO3	**92.5**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**92.5**		5.0	5.0	mg/L			09/02/16 09:00	1

Client Sample ID: SR3-SEEP-1-081916

Lab Sample ID: 460-118951-5

Date Collected: 08/19/16 11:40

Matrix: Water

Date Received: 08/19/16 18:00

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 14:02	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 14:02	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*08/25/16 14:02*	*1*
4-Bromofluorobenzene	*112*		*70 - 130*		*08/25/16 14:02*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 04:25	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 04:25	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 04:25	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 04:25	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 04:25	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 04:25	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 04:25	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 04:25	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 04:25	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 04:25	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 04:25	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 04:25	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 04:25	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 04:25	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 04:25	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 04:25	1
Acetone	**5.3**		5.0	1.1	ug/L			08/24/16 04:25	1
Benzene	**0.38**	**J**	1.0	0.090	ug/L			08/24/16 04:25	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 04:25	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 04:25	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 04:25	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 04:25	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 04:25	1

Client Sample ID: SR3-SEEP-1-081916
Date Collected: 08/19/16 11:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 04:25	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 04:25	1
Chloroethane	**2.5**		1.0	0.37	ug/L			08/24/16 04:25	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 04:25	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 04:25	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 04:25	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 04:25	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 04:25	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 04:25	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 04:25	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 04:25	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 04:25	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 04:25	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 04:25	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 04:25	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 04:25	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 04:25	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 04:25	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 04:25	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 04:25	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 04:25	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 04:25	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 04:25	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 04:25	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 04:25	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 04:25*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*		*08/24/16 04:25*	*1*
4-Bromofluorobenzene	*107*		*70 - 130*		*08/24/16 04:25*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*08/24/16 04:25*	*1*
Toluene-d8 (Surr)	*93*		*70 - 130*		*08/24/16 04:25*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U *	0.052	0.039	ug/L		08/24/16 12:24	08/31/16 16:57	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/24/16 12:24	08/31/16 16:57	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/24/16 12:24	08/31/16 16:57	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 16:57	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/24/16 12:24	08/31/16 16:57	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 16:57	1
Indeno[1,2,3-cd]pyrene	0.028	U *	0.052	0.028	ug/L		08/24/16 12:24	08/31/16 16:57	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/24/16 12:24	08/31/16 16:57	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 18:07	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 18:07	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SR3-SEEP-1-081916
Date Collected: 08/19/16 11:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 18:07	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 18:07	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 18:07	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/24/16 12:24	08/30/16 18:07	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 18:07	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/24/16 12:24	08/30/16 18:07	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/24/16 12:24	08/30/16 18:07	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/24/16 12:24	08/30/16 18:07	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/24/16 12:24	08/30/16 18:07	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/24/16 12:24	08/30/16 18:07	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/24/16 12:24	08/30/16 18:07	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/24/16 12:24	08/30/16 18:07	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/24/16 12:24	08/30/16 18:07	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/24/16 12:24	08/30/16 18:07	1
Isophorone	0.70	U	10	0.70	ug/L		08/24/16 12:24	08/30/16 18:07	1
Naphthalene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 18:07	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 18:07	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/24/16 12:24	08/30/16 18:07	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 18:07	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 18:07	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 18:07	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 18:07	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 18:07	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 18:07	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/24/16 12:24	08/30/16 18:07	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 18:07	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 18:07	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 18:07	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/24/16 12:24	08/30/16 18:07	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 18:07	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 18:07	1
Fluorene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 18:07	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/24/16 12:24	08/30/16 18:07	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 18:07	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 18:07	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 18:07	1
Anthracene	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 18:07	1
Carbazole	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 18:07	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 18:07	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 18:07	1
Pyrene	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 18:07	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 18:07	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/24/16 12:24	08/30/16 18:07	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/24/16 12:24	08/30/16 18:07	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 18:07	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/24/16 12:24	08/30/16 18:07	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/24/16 12:24	08/30/16 18:07	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 18:07	1
Acetophenone	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 18:07	1

Client Sample ID: SR3-SEEP-1-081916
Date Collected: 08/19/16 11:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	0.90	U	10	0.90	ug/L		08/24/16 12:24	08/30/16 18:07	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 18:07	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/24/16 12:24	08/30/16 18:07	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/24/16 12:24	08/30/16 18:07	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/24/16 12:24	08/30/16 18:07	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 18:07	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 18:07	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*108*		*30 - 130*	*08/24/16 12:24*	*08/30/16 18:07*	*1*
Phenol-d5 (Surr)	*26*		*15 - 110*	*08/24/16 12:24*	*08/30/16 18:07*	*1*
Terphenyl-d14 (Surr)	*102*		*30 - 130*	*08/24/16 12:24*	*08/30/16 18:07*	*1*
2,4,6-Tribromophenol (Surr)	*112*	*X*	*15 - 110*	*08/24/16 12:24*	*08/30/16 18:07*	*1*
2-Fluorophenol (Surr)	*53*		*15 - 110*	*08/24/16 12:24*	*08/30/16 18:07*	*1*
2-Fluorobiphenyl	*100*		*30 - 130*	*08/24/16 12:24*	*08/30/16 18:07*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:19	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:19	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:19	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:19	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:19	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:19	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:19	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:19	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:19	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*82*		*30 - 150*	*08/24/16 19:43*	*08/25/16 10:19*	*1*
Tetrachloro-m-xylene	*121*		*30 - 150*	*08/24/16 19:43*	*08/25/16 10:19*	*1*
DCB Decachlorobiphenyl	*95*		*30 - 150*	*08/24/16 19:43*	*08/25/16 10:19*	*1*
DCB Decachlorobiphenyl	*127*		*30 - 150*	*08/24/16 19:43*	*08/25/16 10:19*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**0.98**		0.60	0.11	mg/L			08/25/16 01:12	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.91**	**D**	0.60	0.15	mg/L			08/25/16 13:41	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:22	2
Arsenic	**1.4**	**J**	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 21:18	2
Barium	**327**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:22	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 20:22	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 20:22	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SR3-SEEP-1-081916
Date Collected: 08/19/16 11:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-5
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	**2.1**	**J**	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:22	2
Chromium	**2.3**	**J**	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:22	2
Copper	**5.4**		4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:22	2
Manganese	**1030**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 20:22	2
Nickel	**4.5**		4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:22	2
Lead	**17.0**		1.2	0.44	ug/L		08/26/16 21:49	08/28/16 20:22	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 20:22	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 21:18	2
Vanadium	**3.3**	**J**	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 20:22	2
Zinc	**36.7**		16.0	6.5	ug/L		08/26/16 21:49	08/28/16 20:22	2
Aluminum	**521**		40.0	13.5	ug/L		08/26/16 21:49	08/28/16 20:22	2
Sodium	**3900**		200	87.6	ug/L		08/26/16 21:49	08/28/16 20:22	2
Magnesium	**4380**		200	68.4	ug/L		08/26/16 21:49	08/28/16 20:22	2
Potassium	**1970**		200	74.8	ug/L		08/26/16 21:49	08/28/16 20:22	2
Calcium	**27300**		200	69.5	ug/L		08/26/16 21:49	08/28/16 20:22	2
Iron	**48200**		120	49.1	ug/L		08/26/16 21:49	08/28/16 20:22	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 20:22	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:03	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:47	09/01/16 21:03	2
Barium	**214**		4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:03	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:47	09/01/16 21:03	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:47	09/01/16 21:03	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:03	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:03	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:03	2
Manganese	**877**		8.0	3.0	ug/L		08/29/16 14:47	09/01/16 21:03	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:03	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:47	09/01/16 21:03	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:47	09/01/16 21:03	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:47	09/01/16 21:03	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:47	09/01/16 21:03	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:47	09/01/16 21:03	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 14:47	09/01/16 21:03	2
Sodium	**3940**		200	87.6	ug/L		08/29/16 14:47	09/01/16 21:03	2
Magnesium	**4190**		200	68.4	ug/L		08/29/16 14:47	09/01/16 21:03	2
Potassium	**1740**		200	74.8	ug/L		08/29/16 14:47	09/01/16 21:03	2
Calcium	**27600**		200	69.5	ug/L		08/29/16 14:47	09/01/16 21:03	2
Iron	**72.1**	**J**	120	49.1	ug/L		08/29/16 14:47	09/01/16 21:03	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:47	09/01/16 21:03	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:16	08/25/16 15:28	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:24	1

Client Sample ID: SR3-SEEP-1-081916

Lab Sample ID: 460-118951-5

Date Collected: 08/19/16 11:40

Matrix: Water

Date Received: 08/19/16 18:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:43	1
Bicarbonate Alkalinity as CaCO3	**84.4**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**84.4**		5.0	5.0	mg/L			09/02/16 09:00	1

Client Sample ID: SR3-SEEP-2-081916

Lab Sample ID: 460-118951-6

Date Collected: 08/19/16 12:10

Matrix: Water

Date Received: 08/19/16 18:00

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 14:27	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 14:27	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/25/16 14:27*	*1*
4-Bromofluorobenzene	*105*		*70 - 130*		*08/25/16 14:27*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 04:52	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 04:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 04:52	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 04:52	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 04:52	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 04:52	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 04:52	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 04:52	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 04:52	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 04:52	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 04:52	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 04:52	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 04:52	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 04:52	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 04:52	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 04:52	1
Acetone	**5.9**		5.0	1.1	ug/L			08/24/16 04:52	1
Benzene	**0.61**	**J**	1.0	0.090	ug/L			08/24/16 04:52	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 04:52	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 04:52	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 04:52	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 04:52	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 04:52	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 04:52	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 04:52	1
Chloroethane	**4.1**		1.0	0.37	ug/L			08/24/16 04:52	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 04:52	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 04:52	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 04:52	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 04:52	1

Client Sample ID: SR3-SEEP-2-081916
Date Collected: 08/19/16 12:10
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 04:52	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 04:52	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 04:52	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 04:52	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 04:52	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 04:52	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 04:52	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 04:52	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 04:52	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 04:52	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 04:52	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 04:52	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 04:52	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 04:52	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 04:52	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 04:52	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 04:52	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 04:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 04:52*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*08/24/16 04:52*	*1*
4-Bromofluorobenzene	*106*		*70 - 130*		*08/24/16 04:52*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*08/24/16 04:52*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*08/24/16 04:52*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U *	0.052	0.039	ug/L		08/24/16 12:24	08/31/16 17:26	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/24/16 12:24	08/31/16 17:26	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/24/16 12:24	08/31/16 17:26	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 17:26	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/24/16 12:24	08/31/16 17:26	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 17:26	1
Indeno[1,2,3-cd]pyrene	0.028	U *	0.052	0.028	ug/L		08/24/16 12:24	08/31/16 17:26	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/24/16 12:24	08/31/16 17:26	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 18:27	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 18:27	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 18:27	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 18:27	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 18:27	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/24/16 12:24	08/30/16 18:27	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 18:27	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/24/16 12:24	08/30/16 18:27	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/24/16 12:24	08/30/16 18:27	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SR3-SEEP-2-081916
Date Collected: 08/19/16 12:10
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/24/16 12:24	08/30/16 18:27	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/24/16 12:24	08/30/16 18:27	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/24/16 12:24	08/30/16 18:27	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/24/16 12:24	08/30/16 18:27	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/24/16 12:24	08/30/16 18:27	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/24/16 12:24	08/30/16 18:27	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/24/16 12:24	08/30/16 18:27	1
Isophorone	0.70	U	10	0.70	ug/L		08/24/16 12:24	08/30/16 18:27	1
Naphthalene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 18:27	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 18:27	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/24/16 12:24	08/30/16 18:27	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 18:27	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 18:27	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 18:27	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 18:27	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 18:27	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 18:27	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/24/16 12:24	08/30/16 18:27	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 18:27	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 18:27	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 18:27	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/24/16 12:24	08/30/16 18:27	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 18:27	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 18:27	1
Fluorene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 18:27	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/24/16 12:24	08/30/16 18:27	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 18:27	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 18:27	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 18:27	1
Anthracene	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 18:27	1
Carbazole	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 18:27	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 18:27	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 18:27	1
Pyrene	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 18:27	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 18:27	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/24/16 12:24	08/30/16 18:27	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/24/16 12:24	08/30/16 18:27	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 18:27	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/24/16 12:24	08/30/16 18:27	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/24/16 12:24	08/30/16 18:27	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 18:27	1
Acetophenone	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 18:27	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/24/16 12:24	08/30/16 18:27	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 18:27	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/24/16 12:24	08/30/16 18:27	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/24/16 12:24	08/30/16 18:27	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/24/16 12:24	08/30/16 18:27	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 18:27	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 18:27	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SR3-SEEP-2-081916
Date Collected: 08/19/16 12:10
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 18:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*87*		*30 - 130*	*08/24/16 12:24*	*08/30/16 18:27*	*1*
Phenol-d5 (Surr)	*26*		*15 - 110*	*08/24/16 12:24*	*08/30/16 18:27*	*1*
Terphenyl-d14 (Surr)	*96*		*30 - 130*	*08/24/16 12:24*	*08/30/16 18:27*	*1*
2,4,6-Tribromophenol (Surr)	*113*	*X*	*15 - 110*	*08/24/16 12:24*	*08/30/16 18:27*	*1*
2-Fluorophenol (Surr)	*47*		*15 - 110*	*08/24/16 12:24*	*08/30/16 18:27*	*1*
2-Fluorobiphenyl	*93*		*30 - 130*	*08/24/16 12:24*	*08/30/16 18:27*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:37	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:37	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:37	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:37	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:37	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:37	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:37	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:37	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:37	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*54*	*p*	*30 - 150*	*08/24/16 19:43*	*08/25/16 10:37*	*1*
Tetrachloro-m-xylene	*104*		*30 - 150*	*08/24/16 19:43*	*08/25/16 10:37*	*1*
DCB Decachlorobiphenyl	*83*	*p*	*30 - 150*	*08/24/16 19:43*	*08/25/16 10:37*	*1*
DCB Decachlorobiphenyl	*136*		*30 - 150*	*08/24/16 19:43*	*08/25/16 10:37*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1.0**		0.60	0.11	mg/L			08/25/16 01:31	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.21**	**D**	0.24	0.060	mg/L			08/25/16 13:59	2

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:24	2
Arsenic	**0.80**	**J**	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 21:24	2
Barium	**264**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:24	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 20:24	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 20:24	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:24	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:24	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:24	2
Manganese	**890**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 20:24	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:24	2
Lead	**0.90**	**J**	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 20:24	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 20:24	2

Client Sample ID: SR3-SEEP-2-081916
Date Collected: 08/19/16 12:10
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-6
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 21:24	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 20:24	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 20:24	2
Aluminum	**31.3**	**J**	40.0	13.5	ug/L		08/26/16 21:49	08/28/16 20:24	2
Sodium	**3860**		200	87.6	ug/L		08/26/16 21:49	08/28/16 20:24	2
Magnesium	**4130**		200	68.4	ug/L		08/26/16 21:49	08/28/16 20:24	2
Potassium	**1660**		200	74.8	ug/L		08/26/16 21:49	08/28/16 20:24	2
Calcium	**26800**		200	69.5	ug/L		08/26/16 21:49	08/28/16 20:24	2
Iron	**35600**		120	49.1	ug/L		08/26/16 21:49	08/28/16 20:24	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 20:24	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:25	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:47	09/01/16 21:25	2
Barium	**215**		4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:25	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:47	09/01/16 21:25	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:47	09/01/16 21:25	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:25	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:25	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:25	2
Manganese	**857**		8.0	3.0	ug/L		08/29/16 14:47	09/01/16 21:25	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:25	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:47	09/01/16 21:25	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:47	09/01/16 21:25	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:47	09/01/16 21:25	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:47	09/01/16 21:25	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:47	09/01/16 21:25	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 14:47	09/01/16 21:25	2
Sodium	**3920**		200	87.6	ug/L		08/29/16 14:47	09/01/16 21:25	2
Magnesium	**4190**		200	68.4	ug/L		08/29/16 14:47	09/01/16 21:25	2
Potassium	**1720**		200	74.8	ug/L		08/29/16 14:47	09/01/16 21:25	2
Calcium	**27700**		200	69.5	ug/L		08/29/16 14:47	09/01/16 21:25	2
Iron	**119**	**J**	120	49.1	ug/L		08/29/16 14:47	09/01/16 21:25	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:47	09/01/16 21:25	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:16	08/25/16 15:30	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0020**	**J**	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:44	1
Bicarbonate Alkalinity as CaCO3	**82.4**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**82.4**		5.0	5.0	mg/L			09/02/16 09:00	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-PAB-01-081916
Date Collected: 08/19/16 13:15
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-7
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 14:52	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 14:52	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/25/16 14:52*	*1*
4-Bromofluorobenzene	*106*		*70 - 130*		*08/25/16 14:52*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 05:19	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 05:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 05:19	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 05:19	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 05:19	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 05:19	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 05:19	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 05:19	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 05:19	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 05:19	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 05:19	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 05:19	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 05:19	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 05:19	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 05:19	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 05:19	1
Acetone	**5.1**		5.0	1.1	ug/L			08/24/16 05:19	1
Benzene	**0.12**	**J**	1.0	0.090	ug/L			08/24/16 05:19	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 05:19	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 05:19	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 05:19	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 05:19	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 05:19	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 05:19	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 05:19	1
Chloroethane	**1.5**		1.0	0.37	ug/L			08/24/16 05:19	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 05:19	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 05:19	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 05:19	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 05:19	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 05:19	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 05:19	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 05:19	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 05:19	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 05:19	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 05:19	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 05:19	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 05:19	1
Methylene Chloride	**0.38**	**J**	1.0	0.21	ug/L			08/24/16 05:19	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 05:19	1

Client Sample ID: SW-PAB-01-081916
Date Collected: 08/19/16 13:15
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 05:19	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 05:19	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 05:19	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 05:19	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 05:19	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 05:19	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 05:19	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 05:19	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 05:19*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*08/24/16 05:19*	*1*
4-Bromofluorobenzene	*106*		*70 - 130*		*08/24/16 05:19*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*08/24/16 05:19*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*08/24/16 05:19*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U *	0.052	0.039	ug/L		08/24/16 12:24	08/31/16 17:54	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/24/16 12:24	08/31/16 17:54	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/24/16 12:24	08/31/16 17:54	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 17:54	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/24/16 12:24	08/31/16 17:54	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 17:54	1
Indeno[1,2,3-cd]pyrene	0.028	U *	0.052	0.028	ug/L		08/24/16 12:24	08/31/16 17:54	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/24/16 12:24	08/31/16 17:54	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 18:47	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 18:47	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 18:47	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 18:47	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 18:47	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/24/16 12:24	08/30/16 18:47	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 18:47	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/24/16 12:24	08/30/16 18:47	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/24/16 12:24	08/30/16 18:47	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/24/16 12:24	08/30/16 18:47	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/24/16 12:24	08/30/16 18:47	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/24/16 12:24	08/30/16 18:47	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/24/16 12:24	08/30/16 18:47	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/24/16 12:24	08/30/16 18:47	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/24/16 12:24	08/30/16 18:47	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/24/16 12:24	08/30/16 18:47	1
Isophorone	0.70	U	10	0.70	ug/L		08/24/16 12:24	08/30/16 18:47	1
Naphthalene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 18:47	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 18:47	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-PAB-01-081916
Date Collected: 08/19/16 13:15
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/24/16 12:24	08/30/16 18:47	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 18:47	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 18:47	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 18:47	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 18:47	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 18:47	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 18:47	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/24/16 12:24	08/30/16 18:47	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 18:47	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 18:47	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 18:47	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/24/16 12:24	08/30/16 18:47	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 18:47	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 18:47	1
Fluorene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 18:47	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/24/16 12:24	08/30/16 18:47	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 18:47	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 18:47	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 18:47	1
Anthracene	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 18:47	1
Carbazole	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 18:47	1
Di-n-butyl phthalate	**0.89**	**J**	10	0.85	ug/L		08/24/16 12:24	08/30/16 18:47	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 18:47	1
Pyrene	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 18:47	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 18:47	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/24/16 12:24	08/30/16 18:47	1
Bis(2-ethylhexyl) phthalate	**1.4**	**J**	2.1	0.75	ug/L		08/24/16 12:24	08/30/16 18:47	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 18:47	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/24/16 12:24	08/30/16 18:47	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/24/16 12:24	08/30/16 18:47	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 18:47	1
Acetophenone	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 18:47	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/24/16 12:24	08/30/16 18:47	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 18:47	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/24/16 12:24	08/30/16 18:47	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/24/16 12:24	08/30/16 18:47	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/24/16 12:24	08/30/16 18:47	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 18:47	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 18:47	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*101*		*30 - 130*	*08/24/16 12:24*	*08/30/16 18:47*	*1*
Phenol-d5 (Surr)	*27*		*15 - 110*	*08/24/16 12:24*	*08/30/16 18:47*	*1*
Terphenyl-d14 (Surr)	*97*		*30 - 130*	*08/24/16 12:24*	*08/30/16 18:47*	*1*
2,4,6-Tribromophenol (Surr)	*119*	*X*	*15 - 110*	*08/24/16 12:24*	*08/30/16 18:47*	*1*
2-Fluorophenol (Surr)	*56*		*15 - 110*	*08/24/16 12:24*	*08/30/16 18:47*	*1*
2-Fluorobiphenyl	*95*		*30 - 130*	*08/24/16 12:24*	*08/30/16 18:47*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-PAB-01-081916
Date Collected: 08/19/16 13:15
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-7
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:55	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:55	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:55	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:55	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:55	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 10:55	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:55	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:55	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:55	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 10:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*60*	*p*	*30 - 150*	*08/24/16 19:43*	*08/25/16 10:55*	*1*
Tetrachloro-m-xylene	*94*		*30 - 150*	*08/24/16 19:43*	*08/25/16 10:55*	*1*
DCB Decachlorobiphenyl	*93*		*30 - 150*	*08/24/16 19:43*	*08/25/16 10:55*	*1*
DCB Decachlorobiphenyl	*133*		*30 - 150*	*08/24/16 19:43*	*08/25/16 10:55*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1.25**		0.60	0.11	mg/L			08/25/16 01:49	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.83**	**D**	0.24	0.060	mg/L			08/25/16 14:17	2

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:27	2
Arsenic	**1.1**	**J**	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 21:29	2
Barium	**133**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:27	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 20:27	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 20:27	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:27	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:27	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:27	2
Manganese	**678**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 20:27	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:27	2
Lead	**0.66**	**J**	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 20:27	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 20:27	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 21:29	2
Vanadium	**1.4**	**J**	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 20:27	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 20:27	2
Aluminum	**38.0**	**J**	40.0	13.5	ug/L		08/26/16 21:49	08/28/16 20:27	2
Sodium	**3630**		200	87.6	ug/L		08/26/16 21:49	08/28/16 20:27	2
Magnesium	**3450**		200	68.4	ug/L		08/26/16 21:49	08/28/16 20:27	2
Potassium	**986**		200	74.8	ug/L		08/26/16 21:49	08/28/16 20:27	2
Calcium	**16800**		200	69.5	ug/L		08/26/16 21:49	08/28/16 20:27	2
Iron	**31100**		120	49.1	ug/L		08/26/16 21:49	08/28/16 20:27	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 20:27	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-PAB-01-081916

Lab Sample ID: 460-118951-7

Date Collected: 08/19/16 13:15

Matrix: Water

Date Received: 08/19/16 18:00

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:31	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:47	09/01/16 21:31	2
Barium	**110**		4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:31	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:47	09/01/16 21:31	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:47	09/01/16 21:31	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:31	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:31	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:31	2
Manganese	**621**		8.0	3.0	ug/L		08/29/16 14:47	09/01/16 21:31	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:31	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:47	09/01/16 21:31	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:47	09/01/16 21:31	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:47	09/01/16 21:31	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:47	09/01/16 21:31	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:47	09/01/16 21:31	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 14:47	09/01/16 21:31	2
Sodium	**3710**		200	87.6	ug/L		08/29/16 14:47	09/01/16 21:31	2
Magnesium	**3540**		200	68.4	ug/L		08/29/16 14:47	09/01/16 21:31	2
Potassium	**1020**		200	74.8	ug/L		08/29/16 14:47	09/01/16 21:31	2
Calcium	**17300**		200	69.5	ug/L		08/29/16 14:47	09/01/16 21:31	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 14:47	09/01/16 21:31	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:47	09/01/16 21:31	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:16	08/25/16 15:32	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:45	1
Bicarbonate Alkalinity as CaCO3	**56.3**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**56.3**		5.0	5.0	mg/L			09/02/16 09:00	1

Client Sample ID: SW-PAB-01A-081916

Lab Sample ID: 460-118951-8

Date Collected: 08/19/16 13:40

Matrix: Water

Date Received: 08/19/16 18:00

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/26/16 02:08	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 02:08	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 02:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/26/16 02:08*	*1*
4-Bromofluorobenzene	*94*		*70 - 130*		*08/26/16 02:08*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-PAB-01A-081916
Date Collected: 08/19/16 13:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 05:46	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 05:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 05:46	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 05:46	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 05:46	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 05:46	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 05:46	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 05:46	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 05:46	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 05:46	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 05:46	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 05:46	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 05:46	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 05:46	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 05:46	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 05:46	1
Acetone	**5.8**		5.0	1.1	ug/L			08/24/16 05:46	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 05:46	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 05:46	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 05:46	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 05:46	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 05:46	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 05:46	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 05:46	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 05:46	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 05:46	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 05:46	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 05:46	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 05:46	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 05:46	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 05:46	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 05:46	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 05:46	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 05:46	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 05:46	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 05:46	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 05:46	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 05:46	1
Methylene Chloride	**0.53**	**J**	1.0	0.21	ug/L			08/24/16 05:46	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 05:46	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 05:46	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 05:46	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 05:46	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 05:46	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 05:46	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 05:46	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 05:46	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 05:46	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-PAB-01A-081916
Date Collected: 08/19/16 13:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-8
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/24/16 05:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		08/24/16 05:46	1
4-Bromofluorobenzene	106		70 - 130		08/24/16 05:46	1
Dibromofluoromethane (Surr)	106		70 - 130		08/24/16 05:46	1
Toluene-d8 (Surr)	93		70 - 130		08/24/16 05:46	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U *	0.052	0.039	ug/L		08/24/16 12:24	08/31/16 18:23	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/24/16 12:24	08/31/16 18:23	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/24/16 12:24	08/31/16 18:23	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 18:23	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/24/16 12:24	08/31/16 18:23	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 18:23	1
Indeno[1,2,3-cd]pyrene	0.028	U *	0.052	0.028	ug/L		08/24/16 12:24	08/31/16 18:23	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/24/16 12:24	08/31/16 18:23	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 19:06	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 19:06	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 19:06	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 19:06	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 19:06	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/24/16 12:24	08/30/16 19:06	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 19:06	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/24/16 12:24	08/30/16 19:06	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/24/16 12:24	08/30/16 19:06	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/24/16 12:24	08/30/16 19:06	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/24/16 12:24	08/30/16 19:06	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/24/16 12:24	08/30/16 19:06	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/24/16 12:24	08/30/16 19:06	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/24/16 12:24	08/30/16 19:06	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/24/16 12:24	08/30/16 19:06	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/24/16 12:24	08/30/16 19:06	1
Isophorone	0.70	U	10	0.70	ug/L		08/24/16 12:24	08/30/16 19:06	1
Naphthalene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 19:06	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 19:06	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/24/16 12:24	08/30/16 19:06	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 19:06	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 19:06	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 19:06	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 19:06	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 19:06	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 19:06	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/24/16 12:24	08/30/16 19:06	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 19:06	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 19:06	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 19:06	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-PAB-01A-081916
Date Collected: 08/19/16 13:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/24/16 12:24	08/30/16 19:06	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 19:06	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 19:06	1
Fluorene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 19:06	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/24/16 12:24	08/30/16 19:06	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 19:06	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 19:06	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 19:06	1
Anthracene	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 19:06	1
Carbazole	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 19:06	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 19:06	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 19:06	1
Pyrene	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 19:06	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 19:06	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/24/16 12:24	08/30/16 19:06	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/24/16 12:24	08/30/16 19:06	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 19:06	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/24/16 12:24	08/30/16 19:06	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/24/16 12:24	08/30/16 19:06	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 19:06	1
Acetophenone	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 19:06	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/24/16 12:24	08/30/16 19:06	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 19:06	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/24/16 12:24	08/30/16 19:06	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/24/16 12:24	08/30/16 19:06	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/24/16 12:24	08/30/16 19:06	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 19:06	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 19:06	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 19:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*83*		*30 - 130*	*08/24/16 12:24*	*08/30/16 19:06*	*1*
Phenol-d5 (Surr)	*23*		*15 - 110*	*08/24/16 12:24*	*08/30/16 19:06*	*1*
Terphenyl-d14 (Surr)	*89*		*30 - 130*	*08/24/16 12:24*	*08/30/16 19:06*	*1*
2,4,6-Tribromophenol (Surr)	*89*		*15 - 110*	*08/24/16 12:24*	*08/30/16 19:06*	*1*
2-Fluorophenol (Surr)	*47*		*15 - 110*	*08/24/16 12:24*	*08/30/16 19:06*	*1*
2-Fluorobiphenyl	*84*		*30 - 130*	*08/24/16 12:24*	*08/30/16 19:06*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:13	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:13	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:13	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:13	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:13	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:13	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 11:13	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 11:13	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 11:13	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 11:13	1

Client Sample ID: SW-PAB-01A-081916

Date Collected: 08/19/16 13:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-8

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*67*		*30 - 150*	*08/24/16 19:43*	*08/25/16 11:13*	*1*
Tetrachloro-m-xylene	*94*		*30 - 150*	*08/24/16 19:43*	*08/25/16 11:13*	*1*
DCB Decachlorobiphenyl	*105*		*30 - 150*	*08/24/16 19:43*	*08/25/16 11:13*	*1*
DCB Decachlorobiphenyl	*138*		*30 - 150*	*08/24/16 19:43*	*08/25/16 11:13*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.54**		0.12	0.030	mg/L			08/25/16 03:57	1
Sulfate	**1.36**		0.60	0.11	mg/L			08/25/16 03:57	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:32	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 21:35	2
Barium	**70.2**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:32	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 20:32	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 20:32	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:32	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:32	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:32	2
Manganese	**1310**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 20:32	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:32	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 20:32	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 20:32	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 21:35	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 20:32	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 20:32	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 21:49	08/28/16 20:32	2
Sodium	**4180**		200	87.6	ug/L		08/26/16 21:49	08/28/16 20:32	2
Magnesium	**5020**		200	68.4	ug/L		08/26/16 21:49	08/28/16 20:32	2
Potassium	**1690**		200	74.8	ug/L		08/26/16 21:49	08/28/16 20:32	2
Calcium	**26500**		200	69.5	ug/L		08/26/16 21:49	08/28/16 20:32	2
Iron	**3870**		120	49.1	ug/L		08/26/16 21:49	08/28/16 20:32	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 20:32	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:36	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:47	09/01/16 21:36	2
Barium	**63.8**		4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:36	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:47	09/01/16 21:36	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:47	09/01/16 21:36	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:36	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:36	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:36	2
Manganese	**1240**		8.0	3.0	ug/L		08/29/16 14:47	09/01/16 21:36	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:36	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:47	09/01/16 21:36	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:47	09/01/16 21:36	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:47	09/01/16 21:36	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:47	09/01/16 21:36	2

Client Sample ID: SW-PAB-01A-081916

Lab Sample ID: 460-118951-8

Date Collected: 08/19/16 13:40

Matrix: Water

Date Received: 08/19/16 18:00

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:47	09/01/16 21:36	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 14:47	09/01/16 21:36	2
Sodium	**4250**		200	87.6	ug/L		08/29/16 14:47	09/01/16 21:36	2
Magnesium	**5060**		200	68.4	ug/L		08/29/16 14:47	09/01/16 21:36	2
Potassium	**1710**		200	74.8	ug/L		08/29/16 14:47	09/01/16 21:36	2
Calcium	**27300**		200	69.5	ug/L		08/29/16 14:47	09/01/16 21:36	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 14:47	09/01/16 21:36	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:47	09/01/16 21:36	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:16	08/25/16 15:34	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:46	1
Bicarbonate Alkalinity as CaCO3	**84.4**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**84.4**		5.0	5.0	mg/L			09/02/16 09:00	1

Client Sample ID: SW-MRB-00-081916

Lab Sample ID: 460-118951-9

Date Collected: 08/19/16 13:05

Matrix: Water

Date Received: 08/19/16 18:00

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 15:43	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 15:43	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 130*		*08/25/16 15:43*	*1*
4-Bromofluorobenzene	*96*		*70 - 130*		*08/25/16 15:43*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 03:15	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 03:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 03:15	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 03:15	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 03:15	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 03:15	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 03:15	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 03:15	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 03:15	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 03:15	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 03:15	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 03:15	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-MRB-00-081916
Date Collected: 08/19/16 13:05
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 03:15	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 03:15	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 03:15	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 03:15	1
Acetone	1.1	U	5.0	1.1	ug/L			08/25/16 03:15	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 03:15	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 03:15	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 03:15	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 03:15	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 03:15	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 03:15	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 03:15	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 03:15	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 03:15	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 03:15	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 03:15	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 03:15	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 03:15	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 03:15	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 03:15	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 03:15	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 03:15	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 03:15	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 03:15	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 03:15	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 03:15	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 03:15	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 03:15	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 03:15	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 03:15	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 03:15	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 03:15	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 03:15	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 03:15	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 03:15	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 03:15	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 03:15*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/25/16 03:15*	*1*
4-Bromofluorobenzene	*119*		*70 - 130*		*08/25/16 03:15*	*1*
Dibromofluoromethane (Surr)	*117*		*70 - 130*		*08/25/16 03:15*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*08/25/16 03:15*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U *	0.052	0.039	ug/L		08/24/16 12:24	08/31/16 13:32	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/24/16 12:24	08/31/16 13:32	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-MRB-00-081916
Date Collected: 08/19/16 13:05
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-9
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/24/16 12:24	08/31/16 13:32	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 13:32	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/24/16 12:24	08/31/16 13:32	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 13:32	1
Indeno[1,2,3-cd]pyrene	0.028	U *	0.052	0.028	ug/L		08/24/16 12:24	08/31/16 13:32	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/24/16 12:24	08/31/16 13:32	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 22:25	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 22:25	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 22:25	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 22:25	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 22:25	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/24/16 12:24	08/30/16 22:25	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 22:25	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/24/16 12:24	08/30/16 22:25	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/24/16 12:24	08/30/16 22:25	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/24/16 12:24	08/30/16 22:25	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/24/16 12:24	08/30/16 22:25	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/24/16 12:24	08/30/16 22:25	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/24/16 12:24	08/30/16 22:25	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/24/16 12:24	08/30/16 22:25	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/24/16 12:24	08/30/16 22:25	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/24/16 12:24	08/30/16 22:25	1
Isophorone	0.70	U	10	0.70	ug/L		08/24/16 12:24	08/30/16 22:25	1
Naphthalene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 22:25	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 22:25	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/24/16 12:24	08/30/16 22:25	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 22:25	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 22:25	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 22:25	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 22:25	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 22:25	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 22:25	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/24/16 12:24	08/30/16 22:25	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 22:25	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 22:25	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 22:25	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/24/16 12:24	08/30/16 22:25	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 22:25	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 22:25	1
Fluorene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 22:25	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/24/16 12:24	08/30/16 22:25	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 22:25	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 22:25	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 22:25	1
Anthracene	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 22:25	1
Carbazole	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 22:25	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 22:25	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-MRB-00-081916
Date Collected: 08/19/16 13:05
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 22:25	1
Pyrene	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 22:25	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 22:25	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/24/16 12:24	08/30/16 22:25	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/24/16 12:24	08/30/16 22:25	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 22:25	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/24/16 12:24	08/30/16 22:25	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/24/16 12:24	08/30/16 22:25	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 22:25	1
Acetophenone	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 22:25	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/24/16 12:24	08/30/16 22:25	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 22:25	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/24/16 12:24	08/30/16 22:25	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/24/16 12:24	08/30/16 22:25	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/24/16 12:24	08/30/16 22:25	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 22:25	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 22:25	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 22:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*88*		*30 - 130*	*08/24/16 12:24*	*08/30/16 22:25*	*1*
Phenol-d5 (Surr)	*26*		*15 - 110*	*08/24/16 12:24*	*08/30/16 22:25*	*1*
Terphenyl-d14 (Surr)	*96*		*30 - 130*	*08/24/16 12:24*	*08/30/16 22:25*	*1*
2,4,6-Tribromophenol (Surr)	*100*		*15 - 110*	*08/24/16 12:24*	*08/30/16 22:25*	*1*
2-Fluorophenol (Surr)	*50*		*15 - 110*	*08/24/16 12:24*	*08/30/16 22:25*	*1*
2-Fluorobiphenyl	*89*		*30 - 130*	*08/24/16 12:24*	*08/30/16 22:25*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:31	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:31	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:31	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:31	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:31	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:31	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 11:31	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 11:31	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 11:31	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 11:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*30 - 150*	*08/24/16 19:43*	*08/25/16 11:31*	*1*
Tetrachloro-m-xylene	*80*		*30 - 150*	*08/24/16 19:43*	*08/25/16 11:31*	*1*
DCB Decachlorobiphenyl	*107*		*30 - 150*	*08/24/16 19:43*	*08/25/16 11:31*	*1*
DCB Decachlorobiphenyl	*110*		*30 - 150*	*08/24/16 19:43*	*08/25/16 11:31*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.87**		0.12	0.030	mg/L			08/25/16 04:15	1
Sulfate	**5.67**		0.60	0.11	mg/L			08/25/16 04:15	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-MRB-00-081916
Date Collected: 08/19/16 13:05
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-9
Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:42	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 21:41	2
Barium	**8.9**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:42	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/30/16 21:41	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 20:42	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:42	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:42	2
Copper	**1.9**	**J**	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:42	2
Manganese	**25.9**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 20:42	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:42	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 20:42	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 20:42	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 21:41	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 20:42	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 20:42	2
Aluminum	**73.8**		40.0	13.5	ug/L		08/26/16 21:49	08/28/16 20:42	2
Sodium	**2670**		200	87.6	ug/L		08/26/16 21:49	08/28/16 20:42	2
Magnesium	**1690**		200	68.4	ug/L		08/26/16 21:49	08/28/16 20:42	2
Potassium	**506**		200	74.8	ug/L		08/26/16 21:49	08/28/16 20:42	2
Calcium	**4040**		200	69.5	ug/L		08/26/16 21:49	08/28/16 20:42	2
Iron	**323**		120	49.1	ug/L		08/26/16 21:49	08/28/16 20:42	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 20:42	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:42	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:47	09/01/16 21:42	2
Barium	**8.0**		4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:42	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:47	09/01/16 21:42	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:47	09/01/16 21:42	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:42	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:42	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:42	2
Manganese	**3.7**	**J**	8.0	3.0	ug/L		08/29/16 14:47	09/01/16 21:42	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:42	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:47	09/01/16 21:42	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:47	09/01/16 21:42	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:47	09/01/16 21:42	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:47	09/01/16 21:42	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:47	09/01/16 21:42	2
Aluminum	**25.7**	**J**	40.0	13.5	ug/L		08/29/16 14:47	09/01/16 21:42	2
Sodium	**2620**		200	87.6	ug/L		08/29/16 14:47	09/01/16 21:42	2
Magnesium	**1700**		200	68.4	ug/L		08/29/16 14:47	09/01/16 21:42	2
Potassium	**529**		200	74.8	ug/L		08/29/16 14:47	09/01/16 21:42	2
Calcium	**4140**		200	69.5	ug/L		08/29/16 14:47	09/01/16 21:42	2
Iron	**76.2**	**J**	120	49.1	ug/L		08/29/16 14:47	09/01/16 21:42	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:47	09/01/16 21:42	2

Client Sample ID: SW-MRB-00-081916

Lab Sample ID: 460-118951-9

Date Collected: 08/19/16 13:05

Matrix: Water

Date Received: 08/19/16 18:00

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:16	08/25/16 15:36	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:47	1
Bicarbonate Alkalinity as CaCO3	**15.1**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**15.1**		5.0	5.0	mg/L			09/02/16 09:00	1

Client Sample ID: SW-NOB-02-081916

Lab Sample ID: 460-118951-10

Date Collected: 08/19/16 10:25

Matrix: Water

Date Received: 08/19/16 18:00

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 16:08	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 16:08	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 16:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*		*08/25/16 16:08*	*1*
4-Bromofluorobenzene	*94*		*70 - 130*		*08/25/16 16:08*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 06:13	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 06:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 06:13	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 06:13	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 06:13	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 06:13	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 06:13	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 06:13	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 06:13	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 06:13	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 06:13	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 06:13	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 06:13	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 06:13	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 06:13	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 06:13	1
Acetone	**6.6**		5.0	1.1	ug/L			08/24/16 06:13	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 06:13	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 06:13	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 06:13	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 06:13	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 06:13	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 06:13	1

Client Sample ID: SW-NOB-02-081916
Date Collected: 08/19/16 10:25
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-10
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 06:13	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 06:13	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 06:13	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 06:13	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 06:13	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 06:13	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 06:13	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 06:13	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 06:13	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 06:13	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 06:13	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 06:13	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 06:13	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 06:13	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 06:13	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 06:13	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 06:13	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 06:13	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 06:13	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 06:13	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 06:13	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 06:13	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 06:13	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 06:13	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 06:13	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 06:13*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*08/24/16 06:13*	*1*
4-Bromofluorobenzene	*109*		*70 - 130*		*08/24/16 06:13*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 130*		*08/24/16 06:13*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*08/24/16 06:13*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U *	0.052	0.039	ug/L		08/24/16 12:24	08/31/16 14:01	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/24/16 12:24	08/31/16 14:01	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/24/16 12:24	08/31/16 14:01	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 14:01	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/24/16 12:24	08/31/16 14:01	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 14:01	1
Indeno[1,2,3-cd]pyrene	0.028	U *	0.052	0.028	ug/L		08/24/16 12:24	08/31/16 14:01	1
Pentachlorophenol	**0.11**	**J**	0.21	0.080	ug/L		08/24/16 12:24	08/31/16 14:01	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 19:48	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 19:48	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-NOB-02-081916
Date Collected: 08/19/16 10:25
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-10
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 19:48	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 19:48	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 19:48	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/24/16 12:24	08/30/16 19:48	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 19:48	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/24/16 12:24	08/30/16 19:48	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/24/16 12:24	08/30/16 19:48	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/24/16 12:24	08/30/16 19:48	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/24/16 12:24	08/30/16 19:48	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/24/16 12:24	08/30/16 19:48	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/24/16 12:24	08/30/16 19:48	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/24/16 12:24	08/30/16 19:48	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/24/16 12:24	08/30/16 19:48	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/24/16 12:24	08/30/16 19:48	1
Isophorone	0.70	U	10	0.70	ug/L		08/24/16 12:24	08/30/16 19:48	1
Naphthalene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 19:48	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 19:48	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/24/16 12:24	08/30/16 19:48	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 19:48	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 19:48	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 19:48	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 19:48	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 19:48	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 19:48	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/24/16 12:24	08/30/16 19:48	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 19:48	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 19:48	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 19:48	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/24/16 12:24	08/30/16 19:48	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 19:48	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 19:48	1
Fluorene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 19:48	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/24/16 12:24	08/30/16 19:48	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 19:48	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 19:48	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 19:48	1
Anthracene	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 19:48	1
Carbazole	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 19:48	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 19:48	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 19:48	1
Pyrene	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 19:48	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 19:48	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/24/16 12:24	08/30/16 19:48	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/24/16 12:24	08/30/16 19:48	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 19:48	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/24/16 12:24	08/30/16 19:48	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/24/16 12:24	08/30/16 19:48	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 19:48	1
Acetophenone	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 19:48	1

Client Sample ID: SW-NOB-02-081916
Date Collected: 08/19/16 10:25
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-10
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	0.90	U	10	0.90	ug/L		08/24/16 12:24	08/30/16 19:48	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 19:48	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/24/16 12:24	08/30/16 19:48	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/24/16 12:24	08/30/16 19:48	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/24/16 12:24	08/30/16 19:48	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 19:48	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 19:48	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*86*		*30 - 130*	*08/24/16 12:24*	*08/30/16 19:48*	*1*
Phenol-d5 (Surr)	*27*		*15 - 110*	*08/24/16 12:24*	*08/30/16 19:48*	*1*
Terphenyl-d14 (Surr)	*104*		*30 - 130*	*08/24/16 12:24*	*08/30/16 19:48*	*1*
2,4,6-Tribromophenol (Surr)	*99*		*15 - 110*	*08/24/16 12:24*	*08/30/16 19:48*	*1*
2-Fluorophenol (Surr)	*55*		*15 - 110*	*08/24/16 12:24*	*08/30/16 19:48*	*1*
2-Fluorobiphenyl	*86*		*30 - 130*	*08/24/16 12:24*	*08/30/16 19:48*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:49	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:49	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:49	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:49	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:49	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 11:49	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 11:49	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 11:49	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 11:49	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 11:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*91*		*30 - 150*	*08/24/16 19:43*	*08/25/16 11:49*	*1*
Tetrachloro-m-xylene	*93*		*30 - 150*	*08/24/16 19:43*	*08/25/16 11:49*	*1*
DCB Decachlorobiphenyl	*109*		*30 - 150*	*08/24/16 19:43*	*08/25/16 11:49*	*1*
DCB Decachlorobiphenyl	*117*		*30 - 150*	*08/24/16 19:43*	*08/25/16 11:49*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.68**		0.12	0.030	mg/L			08/25/16 04:33	1
Sulfate	**7.05**		0.60	0.11	mg/L			08/25/16 04:33	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:45	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 21:46	2
Barium	**9.2**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:45	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/30/16 21:46	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 20:45	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:45	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:45	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:45	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-NOB-02-081916
Date Collected: 08/19/16 10:25
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-10
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**14.2**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 20:45	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:45	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 20:45	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 20:45	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 21:46	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 20:45	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 20:45	2
Aluminum	**36.0**	**J**	40.0	13.5	ug/L		08/26/16 21:49	08/28/16 20:45	2
Sodium	**3520**		200	87.6	ug/L		08/26/16 21:49	08/28/16 20:45	2
Magnesium	**4830**		200	68.4	ug/L		08/26/16 21:49	08/28/16 20:45	2
Potassium	**862**		200	74.8	ug/L		08/26/16 21:49	08/28/16 20:45	2
Calcium	**10500**		200	69.5	ug/L		08/26/16 21:49	08/28/16 20:45	2
Iron	**77.8**	**J**	120	49.1	ug/L		08/26/16 21:49	08/28/16 20:45	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 20:45	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:47	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:47	09/01/16 21:47	2
Barium	**8.6**		4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:47	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:47	09/01/16 21:47	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:47	09/01/16 21:47	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:47	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:47	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:47	2
Manganese	**6.3**	**J**	8.0	3.0	ug/L		08/29/16 14:47	09/01/16 21:47	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:47	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:47	09/01/16 21:47	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:47	09/01/16 21:47	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:47	09/01/16 21:47	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:47	09/01/16 21:47	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:47	09/01/16 21:47	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 14:47	09/01/16 21:47	2
Sodium	**3320**		200	87.6	ug/L		08/29/16 14:47	09/01/16 21:47	2
Magnesium	**4930**		200	68.4	ug/L		08/29/16 14:47	09/01/16 21:47	2
Potassium	**908**		200	74.8	ug/L		08/29/16 14:47	09/01/16 21:47	2
Calcium	**11000**		200	69.5	ug/L		08/29/16 14:47	09/01/16 21:47	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 14:47	09/01/16 21:47	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:47	09/01/16 21:47	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:16	08/25/16 15:38	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 16:38	1

Client Sample ID: SW-NOB-02-081916

Lab Sample ID: 460-118951-10

Date Collected: 08/19/16 10:25

Matrix: Water

Date Received: 08/19/16 18:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:48	1
Bicarbonate Alkalinity as CaCO3	**40.2**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**40.2**		5.0	5.0	mg/L			09/02/16 09:00	1

Client Sample ID: SW-PAB-04-081916

Lab Sample ID: 460-118951-11

Date Collected: 08/19/16 10:40

Matrix: Water

Date Received: 08/19/16 18:00

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 16:33	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 16:33	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 16:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 130*		*08/25/16 16:33*	*1*
4-Bromofluorobenzene	*89*		*70 - 130*		*08/25/16 16:33*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 06:40	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 06:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 06:40	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 06:40	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 06:40	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 06:40	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 06:40	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 06:40	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 06:40	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 06:40	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 06:40	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 06:40	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 06:40	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 06:40	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 06:40	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 06:40	1
Acetone	**8.2**		5.0	1.1	ug/L			08/24/16 06:40	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 06:40	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 06:40	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 06:40	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 06:40	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 06:40	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 06:40	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 06:40	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 06:40	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 06:40	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 06:40	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 06:40	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 06:40	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 06:40	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-PAB-04-081916
Date Collected: 08/19/16 10:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-11
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 06:40	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 06:40	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 06:40	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 06:40	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 06:40	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 06:40	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 06:40	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 06:40	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 06:40	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 06:40	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 06:40	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 06:40	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 06:40	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 06:40	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 06:40	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 06:40	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 06:40	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 06:40	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 06:40*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*		*08/24/16 06:40*	*1*
4-Bromofluorobenzene	*108*		*70 - 130*		*08/24/16 06:40*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*08/24/16 06:40*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*08/24/16 06:40*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U *	0.052	0.039	ug/L		08/24/16 12:24	08/31/16 14:31	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/24/16 12:24	08/31/16 14:31	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/24/16 12:24	08/31/16 14:31	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 14:31	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/24/16 12:24	08/31/16 14:31	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 14:31	1
Indeno[1,2,3-cd]pyrene	0.028	U *	0.052	0.028	ug/L		08/24/16 12:24	08/31/16 14:31	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/24/16 12:24	08/31/16 14:31	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 20:08	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 20:08	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 20:08	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 20:08	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 20:08	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/24/16 12:24	08/30/16 20:08	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 20:08	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/24/16 12:24	08/30/16 20:08	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/24/16 12:24	08/30/16 20:08	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-PAB-04-081916
Date Collected: 08/19/16 10:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/24/16 12:24	08/30/16 20:08	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/24/16 12:24	08/30/16 20:08	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/24/16 12:24	08/30/16 20:08	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/24/16 12:24	08/30/16 20:08	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/24/16 12:24	08/30/16 20:08	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/24/16 12:24	08/30/16 20:08	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/24/16 12:24	08/30/16 20:08	1
Isophorone	0.70	U	10	0.70	ug/L		08/24/16 12:24	08/30/16 20:08	1
Naphthalene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 20:08	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 20:08	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/24/16 12:24	08/30/16 20:08	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 20:08	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 20:08	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 20:08	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 20:08	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 20:08	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 20:08	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/24/16 12:24	08/30/16 20:08	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 20:08	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 20:08	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 20:08	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/24/16 12:24	08/30/16 20:08	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 20:08	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 20:08	1
Fluorene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 20:08	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/24/16 12:24	08/30/16 20:08	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 20:08	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 20:08	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 20:08	1
Anthracene	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 20:08	1
Carbazole	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 20:08	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 20:08	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 20:08	1
Pyrene	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 20:08	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 20:08	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/24/16 12:24	08/30/16 20:08	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/24/16 12:24	08/30/16 20:08	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 20:08	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/24/16 12:24	08/30/16 20:08	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/24/16 12:24	08/30/16 20:08	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 20:08	1
Acetophenone	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 20:08	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/24/16 12:24	08/30/16 20:08	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 20:08	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/24/16 12:24	08/30/16 20:08	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/24/16 12:24	08/30/16 20:08	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/24/16 12:24	08/30/16 20:08	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 20:08	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 20:08	1

Client Sample ID: SW-PAB-04-081916
Date Collected: 08/19/16 10:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*89*		*30 - 130*	*08/24/16 12:24*	*08/30/16 20:08*	*1*
Phenol-d5 (Surr)	*25*		*15 - 110*	*08/24/16 12:24*	*08/30/16 20:08*	*1*
Terphenyl-d14 (Surr)	*91*		*30 - 130*	*08/24/16 12:24*	*08/30/16 20:08*	*1*
2,4,6-Tribromophenol (Surr)	*97*		*15 - 110*	*08/24/16 12:24*	*08/30/16 20:08*	*1*
2-Fluorophenol (Surr)	*52*		*15 - 110*	*08/24/16 12:24*	*08/30/16 20:08*	*1*
2-Fluorobiphenyl	*82*		*30 - 130*	*08/24/16 12:24*	*08/30/16 20:08*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:07	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:07	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:07	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:07	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:07	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:07	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 12:07	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 12:07	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 12:07	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 12:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*87*		*30 - 150*	*08/24/16 19:43*	*08/25/16 12:07*	*1*
Tetrachloro-m-xylene	*93*		*30 - 150*	*08/24/16 19:43*	*08/25/16 12:07*	*1*
DCB Decachlorobiphenyl	*118*		*30 - 150*	*08/24/16 19:43*	*08/25/16 12:07*	*1*
DCB Decachlorobiphenyl	*120*		*30 - 150*	*08/24/16 19:43*	*08/25/16 12:07*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**2.47**		0.60	0.11	mg/L			08/25/16 04:51	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.66**	**D**	0.60	0.15	mg/L			08/25/16 14:36	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:48	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 21:52	2
Barium	**24.8**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:48	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/30/16 21:52	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 20:48	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:48	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:48	2
Copper	**3.1**	**J**	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:48	2
Manganese	**64.4**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 20:48	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:48	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 20:48	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 20:48	2

Client Sample ID: SW-PAB-04-081916
Date Collected: 08/19/16 10:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-11
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 21:52	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 20:48	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 20:48	2
Aluminum	**26.7**	**J**	40.0	13.5	ug/L		08/26/16 21:49	08/28/16 20:48	2
Sodium	**6380**		200	87.6	ug/L		08/26/16 21:49	08/28/16 20:48	2
Magnesium	**5380**		200	68.4	ug/L		08/26/16 21:49	08/28/16 20:48	2
Potassium	**1110**		200	74.8	ug/L		08/26/16 21:49	08/28/16 20:48	2
Calcium	**23600**		200	69.5	ug/L		08/26/16 21:49	08/28/16 20:48	2
Iron	**210**		120	49.1	ug/L		08/26/16 21:49	08/28/16 20:48	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 20:48	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:53	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:47	09/01/16 21:53	2
Barium	**23.0**		4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:53	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:47	09/01/16 21:53	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:47	09/01/16 21:53	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:53	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:53	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:53	2
Manganese	**29.5**		8.0	3.0	ug/L		08/29/16 14:47	09/01/16 21:53	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:53	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:47	09/01/16 21:53	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:47	09/01/16 21:53	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:47	09/01/16 21:53	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:47	09/01/16 21:53	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:47	09/01/16 21:53	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 14:47	09/01/16 21:53	2
Sodium	**6320**		200	87.6	ug/L		08/29/16 14:47	09/01/16 21:53	2
Magnesium	**5470**		200	68.4	ug/L		08/29/16 14:47	09/01/16 21:53	2
Potassium	**1160**		200	74.8	ug/L		08/29/16 14:47	09/01/16 21:53	2
Calcium	**24700**		200	69.5	ug/L		08/29/16 14:47	09/01/16 21:53	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 14:47	09/01/16 21:53	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:47	09/01/16 21:53	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:22	08/25/16 15:47	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 15:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:48	1
Bicarbonate Alkalinity as CaCO3	**76.4**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**76.4**		5.0	5.0	mg/L			09/02/16 09:00	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-SP-01-081916
Date Collected: 08/19/16 11:05
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-12
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 16:58	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 16:58	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 16:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 130*		*08/25/16 16:58*	*1*
4-Bromofluorobenzene	*99*		*70 - 130*		*08/25/16 16:58*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/24/16 07:07	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/24/16 07:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/24/16 07:07	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/24/16 07:07	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/24/16 07:07	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/24/16 07:07	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/24/16 07:07	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/24/16 07:07	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/24/16 07:07	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/24/16 07:07	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/24/16 07:07	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 07:07	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/24/16 07:07	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/24/16 07:07	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/24/16 07:07	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/24/16 07:07	1
Acetone	**9.4**		5.0	1.1	ug/L			08/24/16 07:07	1
Benzene	0.090	U	1.0	0.090	ug/L			08/24/16 07:07	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/24/16 07:07	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/24/16 07:07	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/24/16 07:07	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/24/16 07:07	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/24/16 07:07	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/24/16 07:07	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/24/16 07:07	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/24/16 07:07	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/24/16 07:07	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/24/16 07:07	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/24/16 07:07	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/24/16 07:07	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/24/16 07:07	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/24/16 07:07	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/24/16 07:07	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/24/16 07:07	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/24/16 07:07	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/24/16 07:07	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/24/16 07:07	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/24/16 07:07	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/24/16 07:07	1
Styrene	0.17	U	1.0	0.17	ug/L			08/24/16 07:07	1

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Lab Sample ID: 460-118951-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/24/16 07:07	1
Toluene	0.25	U	1.0	0.25	ug/L			08/24/16 07:07	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/24/16 07:07	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/24/16 07:07	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/24/16 07:07	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/24/16 07:07	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/24/16 07:07	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/24/16 07:07	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/24/16 07:07*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/24/16 07:07*	*1*
4-Bromofluorobenzene	*118*		*70 - 130*		*08/24/16 07:07*	*1*
Dibromofluoromethane (Surr)	*119*		*70 - 130*		*08/24/16 07:07*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*08/24/16 07:07*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U *	0.052	0.039	ug/L		08/24/16 12:24	08/31/16 15:00	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/24/16 12:24	08/31/16 15:00	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/24/16 12:24	08/31/16 15:00	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 15:00	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/24/16 12:24	08/31/16 15:00	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 15:00	1
Indeno[1,2,3-cd]pyrene	0.028	U *	0.052	0.028	ug/L		08/24/16 12:24	08/31/16 15:00	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/24/16 12:24	08/31/16 15:00	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 20:27	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 20:27	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 20:27	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 20:27	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 20:27	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/24/16 12:24	08/30/16 20:27	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 20:27	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/24/16 12:24	08/30/16 20:27	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/24/16 12:24	08/30/16 20:27	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/24/16 12:24	08/30/16 20:27	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/24/16 12:24	08/30/16 20:27	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/24/16 12:24	08/30/16 20:27	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/24/16 12:24	08/30/16 20:27	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/24/16 12:24	08/30/16 20:27	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/24/16 12:24	08/30/16 20:27	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/24/16 12:24	08/30/16 20:27	1
Isophorone	0.70	U	10	0.70	ug/L		08/24/16 12:24	08/30/16 20:27	1
Naphthalene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 20:27	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 20:27	1

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Lab Sample ID: 460-118951-12
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/24/16 12:24	08/30/16 20:27	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 20:27	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 20:27	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 20:27	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 20:27	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 20:27	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 20:27	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/24/16 12:24	08/30/16 20:27	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 20:27	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 20:27	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 20:27	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/24/16 12:24	08/30/16 20:27	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 20:27	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 20:27	1
Fluorene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 20:27	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/24/16 12:24	08/30/16 20:27	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 20:27	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 20:27	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 20:27	1
Anthracene	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 20:27	1
Carbazole	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 20:27	1
Di-n-butyl phthalate	**2.4**	**J**	10	0.85	ug/L		08/24/16 12:24	08/30/16 20:27	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 20:27	1
Pyrene	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 20:27	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 20:27	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/24/16 12:24	08/30/16 20:27	1
Bis(2-ethylhexyl) phthalate	**4.0**		2.1	0.75	ug/L		08/24/16 12:24	08/30/16 20:27	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 20:27	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/24/16 12:24	08/30/16 20:27	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/24/16 12:24	08/30/16 20:27	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 20:27	1
Acetophenone	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 20:27	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/24/16 12:24	08/30/16 20:27	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 20:27	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/24/16 12:24	08/30/16 20:27	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/24/16 12:24	08/30/16 20:27	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/24/16 12:24	08/30/16 20:27	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 20:27	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 20:27	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 20:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*94*		*30 - 130*	*08/24/16 12:24*	*08/30/16 20:27*	*1*
Phenol-d5 (Surr)	*30*		*15 - 110*	*08/24/16 12:24*	*08/30/16 20:27*	*1*
Terphenyl-d14 (Surr)	*98*		*30 - 130*	*08/24/16 12:24*	*08/30/16 20:27*	*1*
2,4,6-Tribromophenol (Surr)	*102*		*15 - 110*	*08/24/16 12:24*	*08/30/16 20:27*	*1*
2-Fluorophenol (Surr)	*51*		*15 - 110*	*08/24/16 12:24*	*08/30/16 20:27*	*1*
2-Fluorobiphenyl	*91*		*30 - 130*	*08/24/16 12:24*	*08/30/16 20:27*	*1*

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Lab Sample ID: 460-118951-12
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:25	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:25	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:25	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:25	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:25	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:25	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 12:25	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 12:25	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 12:25	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 12:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*85*		*30 - 150*	*08/24/16 19:43*	*08/25/16 12:25*	*1*
Tetrachloro-m-xylene	*87*		*30 - 150*	*08/24/16 19:43*	*08/25/16 12:25*	*1*
DCB Decachlorobiphenyl	*108*		*30 - 150*	*08/24/16 19:43*	*08/25/16 12:25*	*1*
DCB Decachlorobiphenyl	*107*		*30 - 150*	*08/24/16 19:43*	*08/25/16 12:25*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**5.29**		0.60	0.11	mg/L			08/25/16 05:10	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**34.3**	**D**	2.40	0.60	mg/L			08/25/16 14:54	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:50	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 21:58	2
Barium	**12.7**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:50	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/30/16 21:58	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 20:50	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:50	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:50	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:50	2
Manganese	**113**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 20:50	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:50	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 20:50	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 20:50	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 21:58	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 20:50	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 20:50	2
Aluminum	**18.7**	**J**	40.0	13.5	ug/L		08/26/16 21:49	08/28/16 20:50	2
Sodium	**18100**		200	87.6	ug/L		08/26/16 21:49	08/28/16 20:50	2
Magnesium	**3670**		200	68.4	ug/L		08/26/16 21:49	08/28/16 20:50	2
Potassium	**914**		200	74.8	ug/L		08/26/16 21:49	08/28/16 20:50	2
Calcium	**12000**		200	69.5	ug/L		08/26/16 21:49	08/28/16 20:50	2
Iron	**695**		120	49.1	ug/L		08/26/16 21:49	08/28/16 20:50	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 20:50	2

Client Sample ID: SW-SP-01-081916

Lab Sample ID: 460-118951-12

Date Collected: 08/19/16 11:05

Matrix: Water

Date Received: 08/19/16 18:00

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:59	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:47	09/01/16 21:59	2
Barium	**12.0**		4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:59	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:47	09/01/16 21:59	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:47	09/01/16 21:59	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:59	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 21:59	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:59	2
Manganese	**12.6**		8.0	3.0	ug/L		08/29/16 14:47	09/01/16 21:59	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 21:59	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:47	09/01/16 21:59	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:47	09/01/16 21:59	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:47	09/01/16 21:59	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:47	09/01/16 21:59	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:47	09/01/16 21:59	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 14:47	09/01/16 21:59	2
Sodium	**18800**		200	87.6	ug/L		08/29/16 14:47	09/01/16 21:59	2
Magnesium	**3860**		200	68.4	ug/L		08/29/16 14:47	09/01/16 21:59	2
Potassium	**1020**		200	74.8	ug/L		08/29/16 14:47	09/01/16 21:59	2
Calcium	**13000**		200	69.5	ug/L		08/29/16 14:47	09/01/16 21:59	2
Iron	**291**		120	49.1	ug/L		08/29/16 14:47	09/01/16 21:59	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:47	09/01/16 21:59	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:22	08/25/16 15:54	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 15:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:51	1
Bicarbonate Alkalinity as CaCO3	**30.2**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**30.2**		5.0	5.0	mg/L			09/02/16 09:00	1

Client Sample ID: SW-03-081916

Lab Sample ID: 460-118951-13

Date Collected: 08/19/16 12:40

Matrix: Water

Date Received: 08/19/16 18:00

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 17:23	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 17:23	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 130*		*08/25/16 17:23*	*1*
4-Bromofluorobenzene	*90*		*70 - 130*		*08/25/16 17:23*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-03-081916
Date Collected: 08/19/16 12:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-13
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 03:42	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 03:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 03:42	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 03:42	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 03:42	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 03:42	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 03:42	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 03:42	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 03:42	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 03:42	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 03:42	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 03:42	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 03:42	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 03:42	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 03:42	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 03:42	1
Acetone	1.1	U	5.0	1.1	ug/L			08/25/16 03:42	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 03:42	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 03:42	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 03:42	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 03:42	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 03:42	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 03:42	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 03:42	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 03:42	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 03:42	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 03:42	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 03:42	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 03:42	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 03:42	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 03:42	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 03:42	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 03:42	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 03:42	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 03:42	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 03:42	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 03:42	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 03:42	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 03:42	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 03:42	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 03:42	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 03:42	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 03:42	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 03:42	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 03:42	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 03:42	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 03:42	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 03:42	1

Client Sample ID: SW-03-081916
Date Collected: 08/19/16 12:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-13
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/25/16 03:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		08/25/16 03:42	1
4-Bromofluorobenzene	108		70 - 130		08/25/16 03:42	1
Dibromofluoromethane (Surr)	108		70 - 130		08/25/16 03:42	1
Toluene-d8 (Surr)	92		70 - 130		08/25/16 03:42	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U *	0.052	0.039	ug/L		08/24/16 12:24	08/31/16 15:29	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/24/16 12:24	08/31/16 15:29	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/24/16 12:24	08/31/16 15:29	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 15:29	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/24/16 12:24	08/31/16 15:29	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 15:29	1
Indeno[1,2,3-cd]pyrene	0.028	U *	0.052	0.028	ug/L		08/24/16 12:24	08/31/16 15:29	1
Pentachlorophenol	0.081	U	0.21	0.081	ug/L		08/24/16 12:24	08/31/16 15:29	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 20:47	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 20:47	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 20:47	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 20:47	1
2-Nitrophenol	0.62	U	10	0.62	ug/L		08/24/16 12:24	08/30/16 20:47	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/24/16 12:24	08/30/16 20:47	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 20:47	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/24/16 12:24	08/30/16 20:47	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/24/16 12:24	08/30/16 20:47	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/24/16 12:24	08/30/16 20:47	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/24/16 12:24	08/30/16 20:47	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/24/16 12:24	08/30/16 20:47	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/24/16 12:24	08/30/16 20:47	1
N-Nitrosodi-n-propylamine	0.87	U	1.0	0.87	ug/L		08/24/16 12:24	08/30/16 20:47	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/24/16 12:24	08/30/16 20:47	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/24/16 12:24	08/30/16 20:47	1
Isophorone	0.70	U	10	0.70	ug/L		08/24/16 12:24	08/30/16 20:47	1
Naphthalene	0.84	U	10	0.84	ug/L		08/24/16 12:24	08/30/16 20:47	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 20:47	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/24/16 12:24	08/30/16 20:47	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 20:47	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 20:47	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 20:47	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 20:47	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 20:47	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 20:47	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/24/16 12:24	08/30/16 20:47	1
3-Nitroaniline	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 20:47	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 20:47	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 20:47	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-03-081916
Date Collected: 08/19/16 12:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-13
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/24/16 12:24	08/30/16 20:47	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 20:47	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 20:47	1
Fluorene	0.84	U	10	0.84	ug/L		08/24/16 12:24	08/30/16 20:47	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/24/16 12:24	08/30/16 20:47	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 20:47	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 20:47	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 20:47	1
Anthracene	0.60	U	10	0.60	ug/L		08/24/16 12:24	08/30/16 20:47	1
Carbazole	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 20:47	1
Di-n-butyl phthalate	**1.9**	**J**	10	0.86	ug/L		08/24/16 12:24	08/30/16 20:47	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 20:47	1
Pyrene	0.87	U	10	0.87	ug/L		08/24/16 12:24	08/30/16 20:47	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 20:47	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/24/16 12:24	08/30/16 20:47	1
Bis(2-ethylhexyl) phthalate	**2.0**	**J**	2.1	0.75	ug/L		08/24/16 12:24	08/30/16 20:47	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 20:47	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/24/16 12:24	08/30/16 20:47	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/24/16 12:24	08/30/16 20:47	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 20:47	1
Acetophenone	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 20:47	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/24/16 12:24	08/30/16 20:47	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 20:47	1
Atrazine	0.81	U	2.1	0.81	ug/L		08/24/16 12:24	08/30/16 20:47	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/24/16 12:24	08/30/16 20:47	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/24/16 12:24	08/30/16 20:47	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 20:47	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 20:47	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*90*		*30 - 130*	*08/24/16 12:24*	*08/30/16 20:47*	*1*
Phenol-d5 (Surr)	*24*		*15 - 110*	*08/24/16 12:24*	*08/30/16 20:47*	*1*
Terphenyl-d14 (Surr)	*85*		*30 - 130*	*08/24/16 12:24*	*08/30/16 20:47*	*1*
2,4,6-Tribromophenol (Surr)	*105*		*15 - 110*	*08/24/16 12:24*	*08/30/16 20:47*	*1*
2-Fluorophenol (Surr)	*49*		*15 - 110*	*08/24/16 12:24*	*08/30/16 20:47*	*1*
2-Fluorobiphenyl	*90*		*30 - 130*	*08/24/16 12:24*	*08/30/16 20:47*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:43	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:43	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:43	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:43	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:43	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 12:43	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 12:43	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 12:43	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 12:43	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 12:43	1

Client Sample ID: SW-03-081916
Date Collected: 08/19/16 12:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-13
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*71*		*30 - 150*	*08/24/16 19:43*	*08/25/16 12:43*	*1*
Tetrachloro-m-xylene	*72*		*30 - 150*	*08/24/16 19:43*	*08/25/16 12:43*	*1*
DCB Decachlorobiphenyl	*107*		*30 - 150*	*08/24/16 19:43*	*08/25/16 12:43*	*1*
DCB Decachlorobiphenyl	*119*		*30 - 150*	*08/24/16 19:43*	*08/25/16 12:43*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**5.13**		0.60	0.11	mg/L			08/25/16 05:28	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**134**	**D**	12.0	3.00	mg/L			08/25/16 15:12	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:55	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 22:03	2
Barium	**18.1**		4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:55	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/30/16 22:03	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 20:55	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:55	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 20:55	2
Copper	**2.7**	**J**	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:55	2
Manganese	**193**		8.0	3.0	ug/L		08/26/16 21:49	08/28/16 20:55	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 20:55	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 20:55	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 20:55	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 22:03	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 20:55	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 20:55	2
Aluminum	**26.1**	**J**	40.0	13.5	ug/L		08/26/16 21:49	08/28/16 20:55	2
Sodium	**82700**		200	87.6	ug/L		08/26/16 21:49	08/28/16 20:55	2
Magnesium	**6350**		200	68.4	ug/L		08/26/16 21:49	08/28/16 20:55	2
Potassium	**887**		200	74.8	ug/L		08/26/16 21:49	08/28/16 20:55	2
Calcium	**18300**		200	69.5	ug/L		08/26/16 21:49	08/28/16 20:55	2
Iron	**505**		120	49.1	ug/L		08/26/16 21:49	08/28/16 20:55	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 20:55	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:47	09/01/16 22:04	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:47	09/01/16 22:04	2
Barium	**16.1**		4.0	1.5	ug/L		08/29/16 14:47	09/01/16 22:04	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:47	09/01/16 22:04	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:47	09/01/16 22:04	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 22:04	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 22:04	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 22:04	2
Manganese	**103**		8.0	3.0	ug/L		08/29/16 14:47	09/01/16 22:04	2
Nickel	**2.7**	**J**	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 22:04	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:47	09/01/16 22:04	2

Client Sample ID: SW-03-081916

Lab Sample ID: 460-118951-13

Date Collected: 08/19/16 12:40

Matrix: Water

Date Received: 08/19/16 18:00

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:47	09/01/16 22:04	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:47	09/01/16 22:04	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:47	09/01/16 22:04	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:47	09/01/16 22:04	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 14:47	09/01/16 22:04	2
Sodium	**78100**		200	87.6	ug/L		08/29/16 14:47	09/01/16 22:04	2
Magnesium	**6100**		200	68.4	ug/L		08/29/16 14:47	09/01/16 22:04	2
Potassium	**873**		200	74.8	ug/L		08/29/16 14:47	09/01/16 22:04	2
Calcium	**17900**		200	69.5	ug/L		08/29/16 14:47	09/01/16 22:04	2
Iron	**179**		120	49.1	ug/L		08/29/16 14:47	09/01/16 22:04	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:47	09/01/16 22:04	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:22	08/25/16 15:56	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 15:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:55	1
Bicarbonate Alkalinity as CaCO3	**32.2**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**32.2**		5.0	5.0	mg/L			09/02/16 09:00	1

Client Sample ID: SW-04-081916

Lab Sample ID: 460-118951-14

Date Collected: 08/19/16 12:05

Matrix: Water

Date Received: 08/19/16 18:00

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 17:48	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 17:48	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 17:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*08/25/16 17:48*	*1*
4-Bromofluorobenzene	*92*		*70 - 130*		*08/25/16 17:48*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 04:08	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 04:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 04:08	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 04:08	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 04:08	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 04:08	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 04:08	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 04:08	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 04:08	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-04-081916
Date Collected: 08/19/16 12:05
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-14
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 04:08	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 04:08	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 04:08	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 04:08	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 04:08	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 04:08	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 04:08	1
Acetone	1.1	U	5.0	1.1	ug/L			08/25/16 04:08	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 04:08	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 04:08	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 04:08	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 04:08	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 04:08	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 04:08	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 04:08	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 04:08	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 04:08	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 04:08	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 04:08	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 04:08	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 04:08	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 04:08	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 04:08	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 04:08	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 04:08	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 04:08	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 04:08	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 04:08	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 04:08	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 04:08	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 04:08	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 04:08	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 04:08	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 04:08	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 04:08	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 04:08	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 04:08	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 04:08	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 04:08	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 04:08*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*08/25/16 04:08*	*1*
4-Bromofluorobenzene	*106*		*70 - 130*		*08/25/16 04:08*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*		*08/25/16 04:08*	*1*
Toluene-d8 (Surr)	*93*		*70 - 130*		*08/25/16 04:08*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-04-081916
Date Collected: 08/19/16 12:05
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-14
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U *	0.050	0.037	ug/L		08/24/16 12:24	08/31/16 15:59	1
Benzo[a]pyrene	0.026	U *	0.050	0.026	ug/L		08/24/16 12:24	08/31/16 15:59	1
Benzo[b]fluoranthene	0.012	U *	0.050	0.012	ug/L		08/24/16 12:24	08/31/16 15:59	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/24/16 12:24	08/31/16 15:59	1
Dibenz(a,h)anthracene	0.022	U *	0.050	0.022	ug/L		08/24/16 12:24	08/31/16 15:59	1
Hexachlorobenzene	0.0090	U *	0.020	0.0090	ug/L		08/24/16 12:24	08/31/16 15:59	1
Indeno[1,2,3-cd]pyrene	0.027	U *	0.050	0.027	ug/L		08/24/16 12:24	08/31/16 15:59	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/24/16 12:24	08/31/16 15:59	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/24/16 12:24	08/30/16 21:06	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/24/16 12:24	08/30/16 21:06	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 21:06	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/24/16 12:24	08/30/16 21:06	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 21:06	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 21:06	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 21:06	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 21:06	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		08/24/16 12:24	08/30/16 21:06	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/24/16 12:24	08/30/16 21:06	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/24/16 12:24	08/30/16 21:06	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/24/16 12:24	08/30/16 21:06	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/24/16 12:24	08/30/16 21:06	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/24/16 12:24	08/30/16 21:06	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/24/16 12:24	08/30/16 21:06	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/24/16 12:24	08/30/16 21:06	1
Isophorone	0.67	U	10	0.67	ug/L		08/24/16 12:24	08/30/16 21:06	1
Naphthalene	0.80	U	10	0.80	ug/L		08/24/16 12:24	08/30/16 21:06	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/24/16 12:24	08/30/16 21:06	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/24/16 12:24	08/30/16 21:06	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/24/16 12:24	08/30/16 21:06	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 21:06	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 21:06	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/24/16 12:24	08/30/16 21:06	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/24/16 12:24	08/30/16 21:06	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/24/16 12:24	08/30/16 21:06	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/24/16 12:24	08/30/16 21:06	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/24/16 12:24	08/30/16 21:06	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/24/16 12:24	08/30/16 21:06	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 21:06	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/24/16 12:24	08/30/16 21:06	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 21:06	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/24/16 12:24	08/30/16 21:06	1
Fluorene	0.80	U	10	0.80	ug/L		08/24/16 12:24	08/30/16 21:06	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/24/16 12:24	08/30/16 21:06	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/24/16 12:24	08/30/16 21:06	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 21:06	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/24/16 12:24	08/30/16 21:06	1
Anthracene	0.57	U	10	0.57	ug/L		08/24/16 12:24	08/30/16 21:06	1

Client Sample ID: SW-04-081916
Date Collected: 08/19/16 12:05
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-14
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbazole	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 21:06	1
Di-n-butyl phthalate	**1.3**	**J**	10	0.82	ug/L		08/24/16 12:24	08/30/16 21:06	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 21:06	1
Pyrene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 21:06	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/24/16 12:24	08/30/16 21:06	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/24/16 12:24	08/30/16 21:06	1
Bis(2-ethylhexyl) phthalate	**1.7**	**J**	2.0	0.72	ug/L		08/24/16 12:24	08/30/16 21:06	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/24/16 12:24	08/30/16 21:06	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/24/16 12:24	08/30/16 21:06	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 21:06	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 21:06	1
Acetophenone	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 21:06	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 21:06	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 21:06	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/24/16 12:24	08/30/16 21:06	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/24/16 12:24	08/30/16 21:06	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 21:06	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/24/16 12:24	08/30/16 21:06	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 21:06	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/24/16 12:24	08/30/16 21:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*95*		*30 - 130*	*08/24/16 12:24*	*08/30/16 21:06*	*1*
Phenol-d5 (Surr)	*23*		*15 - 110*	*08/24/16 12:24*	*08/30/16 21:06*	*1*
Terphenyl-d14 (Surr)	*98*		*30 - 130*	*08/24/16 12:24*	*08/30/16 21:06*	*1*
2,4,6-Tribromophenol (Surr)	*98*		*15 - 110*	*08/24/16 12:24*	*08/30/16 21:06*	*1*
2-Fluorophenol (Surr)	*49*		*15 - 110*	*08/24/16 12:24*	*08/30/16 21:06*	*1*
2-Fluorobiphenyl	*97*		*30 - 130*	*08/24/16 12:24*	*08/30/16 21:06*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 14:26	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 14:26	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 14:26	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 14:26	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 14:26	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 14:26	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 14:26	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 14:26	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 14:26	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 14:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*81*		*30 - 150*	*08/24/16 19:43*	*08/25/16 14:26*	*1*
Tetrachloro-m-xylene	*74*		*30 - 150*	*08/24/16 19:43*	*08/25/16 14:26*	*1*
DCB Decachlorobiphenyl	*105*		*30 - 150*	*08/24/16 19:43*	*08/25/16 14:26*	*1*
DCB Decachlorobiphenyl	*97*		*30 - 150*	*08/24/16 19:43*	*08/25/16 14:26*	*1*

Client Sample ID: SW-04-081916
Date Collected: 08/19/16 12:05
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-14
Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**7.70**		0.60	0.11	mg/L			08/25/16 05:46	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**149**	**D**	12.0	3.00	mg/L			08/25/16 15:30	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:42	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/28/16 17:27	09/01/16 05:42	2
Barium	**18.3**		4.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:42	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/28/16 17:27	09/01/16 05:42	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/28/16 17:27	09/01/16 05:42	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:42	2
Chromium	1.5	U	4.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:42	2
Copper	**1.6**	**J**	4.0	1.6	ug/L		08/28/16 17:27	09/01/16 05:42	2
Manganese	**31.6**		8.0	3.0	ug/L		08/28/16 17:27	09/01/16 05:42	2
Nickel	1.6	U	4.0	1.6	ug/L		08/28/16 17:27	09/01/16 05:42	2
Lead	0.44	U	1.2	0.44	ug/L		08/28/16 17:27	09/01/16 05:42	2
Antimony	0.76	U	2.0	0.76	ug/L		08/28/16 17:27	09/01/16 05:42	2
Selenium	0.79	U	10.0	0.79	ug/L		08/28/16 17:27	09/01/16 05:42	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/28/16 17:27	09/01/16 05:42	2
Zinc	6.5	U	16.0	6.5	ug/L		08/28/16 17:27	09/01/16 05:42	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/28/16 17:27	09/01/16 05:42	2
Sodium	**81700**		200	87.6	ug/L		08/28/16 17:27	09/01/16 22:03	2
Magnesium	**9840**		200	68.4	ug/L		08/28/16 17:27	09/01/16 05:42	2
Potassium	**2690**		200	74.8	ug/L		08/28/16 17:27	09/01/16 05:42	2
Calcium	**36800**		200	69.5	ug/L		08/28/16 17:27	09/01/16 05:42	2
Iron	**131**		120	49.1	ug/L		08/28/16 17:27	09/01/16 05:42	2
Thallium	0.31	U	0.80	0.31	ug/L		08/28/16 17:27	09/01/16 05:42	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:47	09/01/16 22:10	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:47	09/01/16 22:10	2
Barium	**18.4**		4.0	1.5	ug/L		08/29/16 14:47	09/01/16 22:10	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:47	09/01/16 22:10	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:47	09/01/16 22:10	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 22:10	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 22:10	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 22:10	2
Manganese	**16.5**		8.0	3.0	ug/L		08/29/16 14:47	09/01/16 22:10	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 22:10	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:47	09/01/16 22:10	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:47	09/01/16 22:10	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:47	09/01/16 22:10	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:47	09/01/16 22:10	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:47	09/01/16 22:10	2
Aluminum	**63.0**		40.0	13.5	ug/L		08/29/16 14:47	09/01/16 22:10	2
Sodium	**87100**		200	87.6	ug/L		08/29/16 14:47	09/01/16 22:10	2

Client Sample ID: SW-04-081916

Lab Sample ID: 460-118951-14

Date Collected: 08/19/16 12:05

Matrix: Water

Date Received: 08/19/16 18:00

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	**10600**		200	68.4	ug/L		08/29/16 14:47	09/01/16 22:10	2
Potassium	**2700**		200	74.8	ug/L		08/29/16 14:47	09/01/16 22:10	2
Calcium	**37600**		200	69.5	ug/L		08/29/16 14:47	09/01/16 22:10	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 14:47	09/01/16 22:10	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:47	09/01/16 22:10	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:22	08/25/16 15:58	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 15:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:56	1
Bicarbonate Alkalinity as CaCO3	**98.5**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**98.5**		5.0	5.0	mg/L			09/02/16 09:00	1

Client Sample ID: SW-MRB-03-081916

Lab Sample ID: 460-118951-15

Date Collected: 08/19/16 13:40

Matrix: Water

Date Received: 08/19/16 18:00

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 18:13	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 18:13	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*08/25/16 18:13*	*1*
4-Bromofluorobenzene	*94*		*70 - 130*		*08/25/16 18:13*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 04:35	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 04:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 04:35	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 04:35	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 04:35	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 04:35	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 04:35	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 04:35	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 04:35	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 04:35	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 04:35	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 04:35	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 04:35	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 04:35	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 04:35	1

Client Sample ID: SW-MRB-03-081916
Date Collected: 08/19/16 13:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-15
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 04:35	1
Acetone	1.1	U	5.0	1.1	ug/L			08/25/16 04:35	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 04:35	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 04:35	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 04:35	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 04:35	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 04:35	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 04:35	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 04:35	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 04:35	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 04:35	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 04:35	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 04:35	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 04:35	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 04:35	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 04:35	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 04:35	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 04:35	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 04:35	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 04:35	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 04:35	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 04:35	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 04:35	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 04:35	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 04:35	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 04:35	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 04:35	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 04:35	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 04:35	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 04:35	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 04:35	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 04:35	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 04:35	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 04:35*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*08/25/16 04:35*	*1*
4-Bromofluorobenzene	*107*		*70 - 130*		*08/25/16 04:35*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*08/25/16 04:35*	*1*
Toluene-d8 (Surr)	*93*		*70 - 130*		*08/25/16 04:35*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U *	0.052	0.039	ug/L		08/24/16 12:24	08/31/16 16:28	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/24/16 12:24	08/31/16 16:28	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/24/16 12:24	08/31/16 16:28	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 16:28	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/24/16 12:24	08/31/16 16:28	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-MRB-03-081916
Date Collected: 08/19/16 13:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-15
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 16:28	1
Indeno[1,2,3-cd]pyrene	0.028	U *	0.052	0.028	ug/L		08/24/16 12:24	08/31/16 16:28	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/24/16 12:24	08/31/16 16:28	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 21:26	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 21:26	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 21:26	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 21:26	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 21:26	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/24/16 12:24	08/30/16 21:26	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 21:26	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/24/16 12:24	08/30/16 21:26	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/24/16 12:24	08/30/16 21:26	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/24/16 12:24	08/30/16 21:26	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/24/16 12:24	08/30/16 21:26	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/24/16 12:24	08/30/16 21:26	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/24/16 12:24	08/30/16 21:26	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/24/16 12:24	08/30/16 21:26	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/24/16 12:24	08/30/16 21:26	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/24/16 12:24	08/30/16 21:26	1
Isophorone	0.70	U	10	0.70	ug/L		08/24/16 12:24	08/30/16 21:26	1
Naphthalene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 21:26	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 21:26	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/24/16 12:24	08/30/16 21:26	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 21:26	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 21:26	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 21:26	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 21:26	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 21:26	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 21:26	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/24/16 12:24	08/30/16 21:26	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 21:26	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 21:26	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 21:26	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/24/16 12:24	08/30/16 21:26	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 21:26	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 21:26	1
Fluorene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 21:26	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/24/16 12:24	08/30/16 21:26	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 21:26	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 21:26	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 21:26	1
Anthracene	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 21:26	1
Carbazole	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 21:26	1
Di-n-butyl phthalate	**2.0**	**J**	10	0.85	ug/L		08/24/16 12:24	08/30/16 21:26	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 21:26	1
Pyrene	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 21:26	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 21:26	1

Client Sample ID: SW-MRB-03-081916
Date Collected: 08/19/16 13:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-15
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.70	U	2.1	0.70	ug/L		08/24/16 12:24	08/30/16 21:26	1
Bis(2-ethylhexyl) phthalate	**2.1**		2.1	0.75	ug/L		08/24/16 12:24	08/30/16 21:26	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 21:26	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/24/16 12:24	08/30/16 21:26	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/24/16 12:24	08/30/16 21:26	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 21:26	1
Acetophenone	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 21:26	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/24/16 12:24	08/30/16 21:26	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 21:26	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/24/16 12:24	08/30/16 21:26	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/24/16 12:24	08/30/16 21:26	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/24/16 12:24	08/30/16 21:26	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 21:26	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 21:26	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 21:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*87*		*30 - 130*	*08/24/16 12:24*	*08/30/16 21:26*	*1*
Phenol-d5 (Surr)	*26*		*15 - 110*	*08/24/16 12:24*	*08/30/16 21:26*	*1*
Terphenyl-d14 (Surr)	*97*		*30 - 130*	*08/24/16 12:24*	*08/30/16 21:26*	*1*
2,4,6-Tribromophenol (Surr)	*98*		*15 - 110*	*08/24/16 12:24*	*08/30/16 21:26*	*1*
2-Fluorophenol (Surr)	*46*		*15 - 110*	*08/24/16 12:24*	*08/30/16 21:26*	*1*
2-Fluorobiphenyl	*93*		*30 - 130*	*08/24/16 12:24*	*08/30/16 21:26*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 14:11	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 14:11	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 14:11	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 14:11	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 14:11	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 14:11	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 14:11	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 14:11	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 14:11	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*65*		*30 - 150*	*08/24/16 19:43*	*08/25/16 14:11*	*1*
Tetrachloro-m-xylene	*97*		*30 - 150*	*08/24/16 19:43*	*08/25/16 14:11*	*1*
DCB Decachlorobiphenyl	*87*		*30 - 150*	*08/24/16 19:43*	*08/25/16 14:11*	*1*
DCB Decachlorobiphenyl	*123*		*30 - 150*	*08/24/16 19:43*	*08/25/16 14:11*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**4.46**		0.60	0.11	mg/L			08/25/16 06:04	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.67**	**D**	2.40	0.60	mg/L			08/25/16 15:49	20

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-MRB-03-081916
Date Collected: 08/19/16 13:40
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-15
Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:48	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/28/16 17:27	09/01/16 05:48	2
Barium	**11.9**		4.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:48	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/28/16 17:27	09/01/16 05:48	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/28/16 17:27	09/01/16 05:48	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:48	2
Chromium	1.5	U	4.0	1.5	ug/L		08/28/16 17:27	09/01/16 05:48	2
Copper	**1.6**	**J**	4.0	1.6	ug/L		08/28/16 17:27	09/01/16 05:48	2
Manganese	**226**		8.0	3.0	ug/L		08/28/16 17:27	09/01/16 05:48	2
Nickel	1.6	U	4.0	1.6	ug/L		08/28/16 17:27	09/01/16 05:48	2
Lead	0.44	U	1.2	0.44	ug/L		08/28/16 17:27	09/01/16 05:48	2
Antimony	0.76	U	2.0	0.76	ug/L		08/28/16 17:27	09/01/16 05:48	2
Selenium	0.79	U	10.0	0.79	ug/L		08/28/16 17:27	09/01/16 05:48	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/28/16 17:27	09/01/16 05:48	2
Zinc	6.5	U	16.0	6.5	ug/L		08/28/16 17:27	09/01/16 05:48	2
Aluminum	**27.3**	**J**	40.0	13.5	ug/L		08/28/16 17:27	09/01/16 05:48	2
Sodium	**18600**		200	87.6	ug/L		08/28/16 17:27	09/01/16 22:22	2
Magnesium	**4330**		200	68.4	ug/L		08/28/16 17:27	09/01/16 05:48	2
Potassium	**680**		200	74.8	ug/L		08/28/16 17:27	09/01/16 05:48	2
Calcium	**12800**		200	69.5	ug/L		08/28/16 17:27	09/01/16 05:48	2
Iron	**709**		120	49.1	ug/L		08/28/16 17:27	09/01/16 05:48	2
Thallium	0.31	U	0.80	0.31	ug/L		08/28/16 17:27	09/01/16 05:48	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:49	09/01/16 22:15	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:49	09/01/16 22:15	2
Barium	**10.1**		4.0	1.5	ug/L		08/29/16 14:49	09/01/16 22:15	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:49	09/01/16 22:15	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:49	09/01/16 22:15	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:49	09/01/16 22:15	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:49	09/01/16 22:15	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:49	09/01/16 22:15	2
Manganese	**116**		8.0	3.0	ug/L		08/29/16 14:49	09/01/16 22:15	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:49	09/01/16 22:15	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:49	09/01/16 22:15	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:49	09/01/16 22:15	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:49	09/01/16 22:15	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:49	09/01/16 22:15	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:49	09/01/16 22:15	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 14:49	09/01/16 22:15	2
Sodium	**18700**		200	87.6	ug/L		08/29/16 14:49	09/01/16 22:15	2
Magnesium	**4310**		200	68.4	ug/L		08/29/16 14:49	09/01/16 22:15	2
Potassium	**642**		200	74.8	ug/L		08/29/16 14:49	09/01/16 22:15	2
Calcium	**12300**		200	69.5	ug/L		08/29/16 14:49	09/01/16 22:15	2
Iron	**219**		120	49.1	ug/L		08/29/16 14:49	09/01/16 22:15	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:49	09/01/16 22:15	2

Client Sample ID: SW-MRB-03-081916

Lab Sample ID: 460-118951-15

Date Collected: 08/19/16 13:40

Matrix: Water

Date Received: 08/19/16 18:00

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:22	08/25/16 16:00	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 15:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:57	1
Bicarbonate Alkalinity as CaCO3	**28.1**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**28.1**		5.0	5.0	mg/L			09/02/16 09:00	1

Client Sample ID: SW-MRB-02-081916

Lab Sample ID: 460-118951-16

Date Collected: 08/19/16 13:55

Matrix: Water

Date Received: 08/19/16 18:00

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 18:38	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 18:38	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/25/16 18:38*	*1*
4-Bromofluorobenzene	*91*		*70 - 130*		*08/25/16 18:38*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 05:02	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 05:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 05:02	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 05:02	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 05:02	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 05:02	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 05:02	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 05:02	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 05:02	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 05:02	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 05:02	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 05:02	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 05:02	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 05:02	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 05:02	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 05:02	1
Acetone	1.1	U	5.0	1.1	ug/L			08/25/16 05:02	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 05:02	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 05:02	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 05:02	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 05:02	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 05:02	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 05:02	1

Client Sample ID: SW-MRB-02-081916
Date Collected: 08/19/16 13:55
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-16
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 05:02	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 05:02	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 05:02	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 05:02	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 05:02	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 05:02	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 05:02	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 05:02	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 05:02	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 05:02	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 05:02	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 05:02	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 05:02	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 05:02	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 05:02	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 05:02	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 05:02	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 05:02	1
Toluene	**0.39**	**J**	1.0	0.25	ug/L			08/25/16 05:02	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 05:02	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 05:02	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 05:02	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 05:02	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 05:02	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 05:02	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 05:02*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*08/25/16 05:02*	*1*
4-Bromofluorobenzene	*108*		*70 - 130*		*08/25/16 05:02*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*08/25/16 05:02*	*1*
Toluene-d8 (Surr)	*93*		*70 - 130*		*08/25/16 05:02*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U *	0.052	0.039	ug/L		08/24/16 12:24	08/31/16 16:58	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/24/16 12:24	08/31/16 16:58	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/24/16 12:24	08/31/16 16:58	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 16:58	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/24/16 12:24	08/31/16 16:58	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 16:58	1
Indeno[1,2,3-cd]pyrene	0.028	U *	0.052	0.028	ug/L		08/24/16 12:24	08/31/16 16:58	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/24/16 12:24	08/31/16 16:58	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 21:45	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 21:45	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-MRB-02-081916
Date Collected: 08/19/16 13:55
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-16
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 21:45	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 21:45	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 21:45	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/24/16 12:24	08/30/16 21:45	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 21:45	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/24/16 12:24	08/30/16 21:45	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/24/16 12:24	08/30/16 21:45	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/24/16 12:24	08/30/16 21:45	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/24/16 12:24	08/30/16 21:45	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/24/16 12:24	08/30/16 21:45	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/24/16 12:24	08/30/16 21:45	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/24/16 12:24	08/30/16 21:45	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/24/16 12:24	08/30/16 21:45	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/24/16 12:24	08/30/16 21:45	1
Isophorone	0.70	U	10	0.70	ug/L		08/24/16 12:24	08/30/16 21:45	1
Naphthalene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 21:45	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 21:45	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/24/16 12:24	08/30/16 21:45	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 21:45	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 21:45	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 21:45	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 21:45	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 21:45	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 21:45	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/24/16 12:24	08/30/16 21:45	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 21:45	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 21:45	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 21:45	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/24/16 12:24	08/30/16 21:45	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 21:45	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 21:45	1
Fluorene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 21:45	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/24/16 12:24	08/30/16 21:45	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 21:45	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 21:45	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 21:45	1
Anthracene	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 21:45	1
Carbazole	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 21:45	1
Di-n-butyl phthalate	**1.7**	**J**	10	0.85	ug/L		08/24/16 12:24	08/30/16 21:45	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 21:45	1
Pyrene	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 21:45	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 21:45	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/24/16 12:24	08/30/16 21:45	1
Bis(2-ethylhexyl) phthalate	**3.1**		2.1	0.75	ug/L		08/24/16 12:24	08/30/16 21:45	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 21:45	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/24/16 12:24	08/30/16 21:45	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/24/16 12:24	08/30/16 21:45	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 21:45	1
Acetophenone	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 21:45	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-MRB-02-081916
Date Collected: 08/19/16 13:55
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-16
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	0.90	U	10	0.90	ug/L		08/24/16 12:24	08/30/16 21:45	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 21:45	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/24/16 12:24	08/30/16 21:45	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/24/16 12:24	08/30/16 21:45	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/24/16 12:24	08/30/16 21:45	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 21:45	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 21:45	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*88*		*30 - 130*	*08/24/16 12:24*	*08/30/16 21:45*	*1*
Phenol-d5 (Surr)	*25*		*15 - 110*	*08/24/16 12:24*	*08/30/16 21:45*	*1*
Terphenyl-d14 (Surr)	*93*		*30 - 130*	*08/24/16 12:24*	*08/30/16 21:45*	*1*
2,4,6-Tribromophenol (Surr)	*93*		*15 - 110*	*08/24/16 12:24*	*08/30/16 21:45*	*1*
2-Fluorophenol (Surr)	*36*		*15 - 110*	*08/24/16 12:24*	*08/30/16 21:45*	*1*
2-Fluorobiphenyl	*87*		*30 - 130*	*08/24/16 12:24*	*08/30/16 21:45*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 13:53	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 13:53	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 13:53	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 13:53	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 13:53	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 13:53	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 13:53	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 13:53	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 13:53	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*49*		*30 - 150*	*08/24/16 19:43*	*08/25/16 13:53*	*1*
Tetrachloro-m-xylene	*49*		*30 - 150*	*08/24/16 19:43*	*08/25/16 13:53*	*1*
DCB Decachlorobiphenyl	*80*		*30 - 150*	*08/24/16 19:43*	*08/25/16 13:53*	*1*
DCB Decachlorobiphenyl	*85*		*30 - 150*	*08/24/16 19:43*	*08/25/16 13:53*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.54**		0.12	0.030	mg/L			08/25/16 06:23	1
Sulfate	**3.48**		0.60	0.11	mg/L			08/25/16 06:23	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/01/16 03:46	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 07:58	09/01/16 03:46	2
Barium	**15.0**		4.0	1.5	ug/L		08/29/16 07:58	09/01/16 03:46	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/01/16 03:46	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 07:58	09/01/16 03:46	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/01/16 03:46	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/01/16 03:46	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/01/16 03:46	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: SW-MRB-02-081916
Date Collected: 08/19/16 13:55
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-16
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**697**		8.0	3.0	ug/L		08/29/16 07:58	09/01/16 03:46	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/01/16 03:46	2
Lead	**0.68**	**J**	1.2	0.44	ug/L		08/29/16 07:58	09/01/16 03:46	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/01/16 03:46	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 07:58	09/01/16 03:46	2
Vanadium	**1.4**	**J**	4.0	1.4	ug/L		08/29/16 07:58	09/01/16 03:46	2
Zinc	**12.8**	**J**	16.0	6.5	ug/L		08/29/16 07:58	09/01/16 03:46	2
Aluminum	**135**		40.0	13.5	ug/L		08/29/16 07:58	09/01/16 03:46	2
Sodium	**3040**		200	87.6	ug/L		08/29/16 07:58	09/02/16 04:01	2
Magnesium	**2100**		200	68.4	ug/L		08/29/16 07:58	09/01/16 03:46	2
Potassium	**276**		200	74.8	ug/L		08/29/16 07:58	09/01/16 03:46	2
Calcium	**6350**		200	69.5	ug/L		08/29/16 07:58	09/01/16 03:46	2
Iron	**3580**		120	49.1	ug/L		08/29/16 07:58	09/01/16 03:46	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/01/16 03:46	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:49	09/01/16 22:55	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:49	09/01/16 22:55	2
Barium	**11.1**		4.0	1.5	ug/L		08/29/16 14:49	09/01/16 22:55	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:49	09/01/16 22:55	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:49	09/01/16 22:55	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:49	09/01/16 22:55	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:49	09/01/16 22:55	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:49	09/01/16 22:55	2
Manganese	**110**		8.0	3.0	ug/L		08/29/16 14:49	09/01/16 22:55	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:49	09/01/16 22:55	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:49	09/01/16 22:55	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:49	09/01/16 22:55	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:49	09/01/16 22:55	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:49	09/01/16 22:55	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:49	09/01/16 22:55	2
Aluminum	**15.1**	**J**	40.0	13.5	ug/L		08/29/16 14:49	09/01/16 22:55	2
Sodium	**3030**		200	87.6	ug/L		08/29/16 14:49	09/01/16 22:55	2
Magnesium	**2030**		200	68.4	ug/L		08/29/16 14:49	09/01/16 22:55	2
Potassium	**250**		200	74.8	ug/L		08/29/16 14:49	09/01/16 22:55	2
Calcium	**5810**		200	69.5	ug/L		08/29/16 14:49	09/01/16 22:55	2
Iron	**834**		120	49.1	ug/L		08/29/16 14:49	09/01/16 22:55	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:49	09/01/16 22:55	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:22	08/25/16 16:02	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 15:58	1

Client Sample ID: SW-MRB-02-081916

Lab Sample ID: 460-118951-16

Date Collected: 08/19/16 13:55

Matrix: Water

Date Received: 08/19/16 18:00

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:58	1
Bicarbonate Alkalinity as CaCO3	**31.2**		5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	**31.2**		5.0	5.0	mg/L			09/02/16 09:00	1

Client Sample ID: FB-03-081916

Lab Sample ID: 460-118951-17

Date Collected: 08/19/16 14:30

Matrix: Water

Date Received: 08/19/16 18:00

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 09:51	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 09:51	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 09:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*08/25/16 09:51*	*1*
4-Bromofluorobenzene	*94*		*70 - 130*		*08/25/16 09:51*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 02:21	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 02:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 02:21	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 02:21	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 02:21	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 02:21	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 02:21	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 02:21	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 02:21	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 02:21	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 02:21	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 02:21	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 02:21	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 02:21	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 02:21	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 02:21	1
Acetone	**6.3**		5.0	1.1	ug/L			08/25/16 02:21	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 02:21	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 02:21	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 02:21	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 02:21	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 02:21	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 02:21	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 02:21	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 02:21	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 02:21	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 02:21	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 02:21	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 02:21	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 02:21	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: FB-03-081916
Date Collected: 08/19/16 14:30
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-17
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 02:21	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 02:21	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 02:21	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 02:21	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 02:21	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 02:21	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 02:21	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 02:21	1
Methylene Chloride	**1.4**		1.0	0.21	ug/L			08/25/16 02:21	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 02:21	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 02:21	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 02:21	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 02:21	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 02:21	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 02:21	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 02:21	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 02:21	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 02:21	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 02:21*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*08/25/16 02:21*	*1*
4-Bromofluorobenzene	*106*		*70 - 130*		*08/25/16 02:21*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 130*		*08/25/16 02:21*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*08/25/16 02:21*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U *	0.052	0.039	ug/L		08/24/16 12:24	08/31/16 17:28	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/24/16 12:24	08/31/16 17:28	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/24/16 12:24	08/31/16 17:28	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 17:28	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/24/16 12:24	08/31/16 17:28	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/24/16 12:24	08/31/16 17:28	1
Indeno[1,2,3-cd]pyrene	0.028	U *	0.052	0.028	ug/L		08/24/16 12:24	08/31/16 17:28	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/24/16 12:24	08/31/16 17:28	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 22:05	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 22:05	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 22:05	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 22:05	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 22:05	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/24/16 12:24	08/30/16 22:05	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 22:05	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/24/16 12:24	08/30/16 22:05	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/24/16 12:24	08/30/16 22:05	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: FB-03-081916
Date Collected: 08/19/16 14:30
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-17
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/24/16 12:24	08/30/16 22:05	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/24/16 12:24	08/30/16 22:05	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/24/16 12:24	08/30/16 22:05	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/24/16 12:24	08/30/16 22:05	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/24/16 12:24	08/30/16 22:05	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/24/16 12:24	08/30/16 22:05	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/24/16 12:24	08/30/16 22:05	1
Isophorone	0.70	U	10	0.70	ug/L		08/24/16 12:24	08/30/16 22:05	1
Naphthalene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 22:05	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 22:05	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/24/16 12:24	08/30/16 22:05	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 22:05	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 22:05	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/24/16 12:24	08/30/16 22:05	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 22:05	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 22:05	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 22:05	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/24/16 12:24	08/30/16 22:05	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 22:05	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/24/16 12:24	08/30/16 22:05	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 22:05	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/24/16 12:24	08/30/16 22:05	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 22:05	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 22:05	1
Fluorene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 22:05	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/24/16 12:24	08/30/16 22:05	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/24/16 12:24	08/30/16 22:05	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 22:05	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/24/16 12:24	08/30/16 22:05	1
Anthracene	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 22:05	1
Carbazole	0.89	U	10	0.89	ug/L		08/24/16 12:24	08/30/16 22:05	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 22:05	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 22:05	1
Pyrene	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 22:05	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 22:05	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/24/16 12:24	08/30/16 22:05	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/24/16 12:24	08/30/16 22:05	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 22:05	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/24/16 12:24	08/30/16 22:05	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/24/16 12:24	08/30/16 22:05	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/24/16 12:24	08/30/16 22:05	1
Acetophenone	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 22:05	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/24/16 12:24	08/30/16 22:05	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 22:05	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/24/16 12:24	08/30/16 22:05	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/24/16 12:24	08/30/16 22:05	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/24/16 12:24	08/30/16 22:05	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 22:05	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 22:05	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: FB-03-081916
Date Collected: 08/19/16 14:30
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-17
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*91*		*30 - 130*	*08/24/16 12:24*	*08/30/16 22:05*	*1*
Phenol-d5 (Surr)	*26*		*15 - 110*	*08/24/16 12:24*	*08/30/16 22:05*	*1*
Terphenyl-d14 (Surr)	*98*		*30 - 130*	*08/24/16 12:24*	*08/30/16 22:05*	*1*
2,4,6-Tribromophenol (Surr)	*104*		*15 - 110*	*08/24/16 12:24*	*08/30/16 22:05*	*1*
2-Fluorophenol (Surr)	*41*		*15 - 110*	*08/24/16 12:24*	*08/30/16 22:05*	*1*
2-Fluorobiphenyl	*99*		*30 - 130*	*08/24/16 12:24*	*08/30/16 22:05*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 13:35	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 13:35	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 13:35	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 13:35	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 13:35	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 13:35	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 13:35	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 13:35	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 13:35	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*30 - 150*	*08/24/16 19:43*	*08/25/16 13:35*	*1*
Tetrachloro-m-xylene	*80*		*30 - 150*	*08/24/16 19:43*	*08/25/16 13:35*	*1*
DCB Decachlorobiphenyl	*96*		*30 - 150*	*08/24/16 19:43*	*08/25/16 13:35*	*1*
DCB Decachlorobiphenyl	*100*		*30 - 150*	*08/24/16 19:43*	*08/25/16 13:35*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**0.21**		0.12	0.030	mg/L			08/25/16 06:41	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/25/16 06:41	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/01/16 03:58	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 07:58	09/01/16 03:58	2
Barium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/01/16 03:58	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/01/16 03:58	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 07:58	09/01/16 03:58	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/01/16 03:58	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/01/16 03:58	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/01/16 03:58	2
Manganese	3.0	U	8.0	3.0	ug/L		08/29/16 07:58	09/01/16 03:58	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/01/16 03:58	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 07:58	09/01/16 03:58	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/01/16 03:58	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 07:58	09/01/16 03:58	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 07:58	09/01/16 03:58	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 07:58	09/01/16 03:58	2

Client Sample ID: FB-03-081916

Date Collected: 08/19/16 14:30
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-17

Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 07:58	09/01/16 03:58	2
Sodium	87.6	U	200	87.6	ug/L		08/29/16 07:58	09/02/16 04:13	2
Magnesium	68.4	U	200	68.4	ug/L		08/29/16 07:58	09/01/16 03:58	2
Potassium	74.8	U	200	74.8	ug/L		08/29/16 07:58	09/01/16 03:58	2
Calcium	69.5	U	200	69.5	ug/L		08/29/16 07:58	09/01/16 03:58	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 07:58	09/01/16 03:58	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/01/16 03:58	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:49	09/01/16 23:00	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:49	09/01/16 23:00	2
Barium	1.5	U	4.0	1.5	ug/L		08/29/16 14:49	09/01/16 23:00	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:49	09/01/16 23:00	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:49	09/01/16 23:00	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:49	09/01/16 23:00	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:49	09/01/16 23:00	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:49	09/01/16 23:00	2
Manganese	3.0	U	8.0	3.0	ug/L		08/29/16 14:49	09/01/16 23:00	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:49	09/01/16 23:00	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:49	09/01/16 23:00	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:49	09/01/16 23:00	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:49	09/01/16 23:00	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:49	09/01/16 23:00	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:49	09/01/16 23:00	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 14:49	09/01/16 23:00	2
Sodium	87.6	U	200	87.6	ug/L		08/29/16 14:49	09/01/16 23:00	2
Magnesium	68.4	U	200	68.4	ug/L		08/29/16 14:49	09/01/16 23:00	2
Potassium	74.8	U	200	74.8	ug/L		08/29/16 14:49	09/01/16 23:00	2
Calcium	69.5	U	200	69.5	ug/L		08/29/16 14:49	09/01/16 23:00	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 14:49	09/01/16 23:00	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:49	09/01/16 23:00	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:22	08/25/16 16:08	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 16:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:59	1
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/02/16 09:00	1
Alkalinity	5.0	U	5.0	5.0	mg/L			09/02/16 09:00	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: TB-04-081916
Date Collected: 08/19/16 00:00
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-18
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 10:16	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 10:16	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 10:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/25/16 10:16*	*1*
4-Bromofluorobenzene	*99*		*70 - 130*		*08/25/16 10:16*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 01:54	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 01:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 01:54	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 01:54	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 01:54	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 01:54	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 01:54	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 01:54	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 01:54	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 01:54	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 01:54	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 01:54	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 01:54	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 01:54	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 01:54	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 01:54	1
Acetone	**8.4**		5.0	1.1	ug/L			08/25/16 01:54	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 01:54	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 01:54	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 01:54	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 01:54	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 01:54	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 01:54	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 01:54	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 01:54	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 01:54	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 01:54	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 01:54	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 01:54	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 01:54	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 01:54	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 01:54	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 01:54	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 01:54	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 01:54	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 01:54	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 01:54	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 01:54	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 01:54	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 01:54	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: TB-04-081916
Date Collected: 08/19/16 00:00
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-18
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 01:54	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 01:54	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 01:54	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 01:54	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 01:54	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 01:54	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 01:54	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 01:54	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 01:54*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*08/25/16 01:54*	*1*
4-Bromofluorobenzene	*108*		*70 - 130*		*08/25/16 01:54*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 130*		*08/25/16 01:54*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*08/25/16 01:54*	*1*

Surrogate Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)	DBFM (70-130)	TOL (70-130)
460-118951-1	SC-1-081916	91	105	102	91
460-118951-2	SW-11-081916	93	106	106	90
460-118951-3	SW-PAB-00-081916	93	107	104	93
460-118951-4	SR3-Pond-081916	105	120	117	105
460-118951-4 MS	SR3-Pond-081916	92	111	103	93
460-118951-4 MSD	SR3-Pond-081916	90	107	102	91
460-118951-5	SR3-SEEP-1-081916	92	107	105	93
460-118951-6	SR3-SEEP-2-081916	94	106	105	92
460-118951-7	SW-PAB-01-081916	94	106	106	94
460-118951-8	SW-PAB-01A-081916	94	106	106	93
460-118951-9	SW-MRB-00-081916	106	119	117	103
460-118951-10	SW-NOB-02-081916	96	109	106	94
460-118951-11	SW-PAB-04-081916	93	108	105	94
460-118951-12	SW-SP-01-081916	104	118	119	103
460-118951-13	SW-03-081916	96	108	108	92
460-118951-14	SW-04-081916	97	106	108	93
460-118951-15	SW-MRB-03-081916	96	107	107	93
460-118951-16	SW-MRB-02-081916	99	108	110	93
460-118951-17	FB-03-081916	94	106	107	91
460-118951-18	TB-04-081916	95	108	108	92
LCS 460-386348/3	Lab Control Sample	90	109	102	91
LCS 460-386590/3	Lab Control Sample	100	123	116	101
LCSD 460-386590/4	Lab Control Sample Dup	93	110	105	91
MB 460-386348/7	Method Blank	93	107	103	93
MB 460-386590/7	Method Blank	93	107	105	91

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)
460-118951-1	SC-1-081916	97	96
460-118951-2	SW-11-081916	106	93
460-118951-3	SW-PAB-00-081916	108	93
460-118951-4	SR3-Pond-081916	108	102
460-118951-4 MS	SR3-Pond-081916	105	89
460-118951-4 MSD	SR3-Pond-081916	109	92
460-118951-5	SR3-SEEP-1-081916	107	112
460-118951-6	SR3-SEEP-2-081916	106	105
460-118951-7	SW-PAB-01-081916	106	106
460-118951-8	SW-PAB-01A-081916	106	94
460-118951-9	SW-MRB-00-081916	112	96

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)
460-118951-10	SW-NOB-02-081916	111	94
460-118951-11	SW-PAB-04-081916	112	89
460-118951-12	SW-SP-01-081916	113	99
460-118951-13	SW-03-081916	112	90
460-118951-14	SW-04-081916	109	92
460-118951-15	SW-MRB-03-081916	107	94
460-118951-16	SW-MRB-02-081916	106	91
460-118951-17	FB-03-081916	108	94
460-118951-18	TB-04-081916	106	99
LCS 460-386650/3	Lab Control Sample	109	99
LCS 460-386835/3	Lab Control Sample	105	98
LCS 460-387501/3	Lab Control Sample	105	93
LCSD 460-386650/4	Lab Control Sample Dup	104	94
LCSD 460-386835/4	Lab Control Sample Dup	103	99
MB 460-386650/7	Method Blank	108	95
MB 460-386835/7	Method Blank	104	90
MB 460-387501/7	Method Blank	104	88

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	NBZ (30-130)	PHL (15-110)	TPH (30-130)	TBP (15-110)	2FP (15-110)	FBP (30-130)
460-118951-1	SC-1-081916	78	20	100	106	40	84
460-118951-2	SW-11-081916	86	27	96	99	44	85
460-118951-3	SW-PAB-00-081916	94	24	94	114 X	56	95
460-118951-4	SR3-Pond-081916	99	27	94	117 X	39	89
460-118951-4 MS	SR3-Pond-081916	86	26	88	106	41	100
460-118951-4 MSD	SR3-Pond-081916	86	27	74	92	38	87
460-118951-5	SR3-SEEP-1-081916	108	26	102	112 X	53	100
460-118951-6	SR3-SEEP-2-081916	87	26	96	113 X	47	93
460-118951-7	SW-PAB-01-081916	101	27	97	119 X	56	95
460-118951-8	SW-PAB-01A-081916	83	23	89	89	47	84
460-118951-9	SW-MRB-00-081916	88	26	96	100	50	89
460-118951-10	SW-NOB-02-081916	86	27	104	99	55	86
460-118951-11	SW-PAB-04-081916	89	25	91	97	52	82
460-118951-12	SW-SP-01-081916	94	30	98	102	51	91
460-118951-13	SW-03-081916	90	24	85	105	49	90
460-118951-14	SW-04-081916	95	23	98	98	49	97
460-118951-15	SW-MRB-03-081916	87	26	97	98	46	93
460-118951-16	SW-MRB-02-081916	88	25	93	93	36	87
460-118951-17	FB-03-081916	91	26	98	104	41	99
LCS 460-386536/2-A	Lab Control Sample	86	28	81	84	37	77
LCS 460-386536/3-A	Lab Control Sample	88	22	94	105	47	87

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPH	TBP	2FP	FBP
Lab Sample ID	Client Sample ID	(30-130)	(15-110)	(30-130)	(15-110)	(15-110)	(30-130)
MB 460-386536/1-A	Method Blank	82	21	94	108	35	81

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)
460-118951-1	SC-1-081916	52 p	93	67	96
460-118951-2	SW-11-081916	92	91	116	117
460-118951-3	SW-PAB-00-081916	79	78	108	109
460-118951-4	SR3-Pond-081916	78	82	95	92
460-118951-4 MS	SR3-Pond-081916	87	87	130	125
460-118951-4 MSD	SR3-Pond-081916	89	93	126	125
460-118951-5	SR3-SEEP-1-081916	82	121	95	127
460-118951-6	SR3-SEEP-2-081916	54 p	104	83 p	136
460-118951-7	SW-PAB-01-081916	60 p	94	93	133
460-118951-8	SW-PAB-01A-081916	67	94	105	138
460-118951-9	SW-MRB-00-081916	76	80	107	110
460-118951-10	SW-NOB-02-081916	91	93	109	117
460-118951-11	SW-PAB-04-081916	87	93	118	120
460-118951-12	SW-SP-01-081916	85	87	108	107
460-118951-13	SW-03-081916	71	72	107	119
460-118951-14	SW-04-081916	81	74	105	97
460-118951-15	SW-MRB-03-081916	65	97	87	123
460-118951-16	SW-MRB-02-081916	49	49	80	85
460-118951-17	FB-03-081916	73	80	96	100
LCS 460-386623/2-A	Lab Control Sample	90	93	124	121
MB 460-386623/1-A	Method Blank	91	94	134	139

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-386348/7
Matrix: Water
Analysis Batch: 386348

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/23/16 22:36	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/23/16 22:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/23/16 22:36	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/23/16 22:36	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/23/16 22:36	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/23/16 22:36	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/23/16 22:36	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/23/16 22:36	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/23/16 22:36	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/23/16 22:36	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/23/16 22:36	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 22:36	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/23/16 22:36	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/23/16 22:36	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/23/16 22:36	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/23/16 22:36	1
Acetone	1.1	U	5.0	1.1	ug/L			08/23/16 22:36	1
Benzene	0.090	U	1.0	0.090	ug/L			08/23/16 22:36	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/23/16 22:36	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/23/16 22:36	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/23/16 22:36	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/23/16 22:36	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/23/16 22:36	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/23/16 22:36	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/23/16 22:36	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/23/16 22:36	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/23/16 22:36	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/23/16 22:36	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/23/16 22:36	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/23/16 22:36	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/23/16 22:36	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/23/16 22:36	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/23/16 22:36	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/23/16 22:36	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/23/16 22:36	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/23/16 22:36	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/23/16 22:36	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/23/16 22:36	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/23/16 22:36	1
Styrene	0.17	U	1.0	0.17	ug/L			08/23/16 22:36	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/23/16 22:36	1
Toluene	0.25	U	1.0	0.25	ug/L			08/23/16 22:36	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/23/16 22:36	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/23/16 22:36	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/23/16 22:36	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/23/16 22:36	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/23/16 22:36	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/23/16 22:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		08/23/16 22:36	1
4-Bromofluorobenzene	107		70 - 130		08/23/16 22:36	1
Dibromofluoromethane (Surr)	103		70 - 130		08/23/16 22:36	1
Toluene-d8 (Surr)	93		70 - 130		08/23/16 22:36	1

Lab Sample ID: LCS 460-386348/3
Matrix: Water
Analysis Batch: 386348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	20.4		ug/L		102	70 - 130
1,1,2,2-Tetrachloroethane	20.0	16.6		ug/L		83	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	19.7		ug/L		99	70 - 130
1,1,2-Trichloroethane	20.0	17.5		ug/L		88	70 - 130
1,1-Dichloroethane	20.0	19.3		ug/L		96	70 - 130
1,1-Dichloroethene	20.0	20.8		ug/L		104	70 - 130
1,2,3-Trichlorobenzene	20.0	19.6		ug/L		98	70 - 130
1,2,4-Trichlorobenzene	20.0	19.5		ug/L		97	70 - 130
1,2-Dichlorobenzene	20.0	18.9		ug/L		95	70 - 130
1,2-Dichloroethane	20.0	19.0		ug/L		95	70 - 130
1,2-Dichloropropane	20.0	18.5		ug/L		92	70 - 130
1,3-Dichlorobenzene	20.0	18.8		ug/L		94	70 - 130
1,4-Dichlorobenzene	20.0	18.9		ug/L		94	70 - 130
2-Butanone (MEK)	100	102		ug/L		102	40 - 160
2-Hexanone	100	92.5		ug/L		93	40 - 160
4-Methyl-2-pentanone (MIBK)	100	97.4		ug/L		97	40 - 160
Acetone	100	88.3		ug/L		88	40 - 160
Benzene	20.0	18.5		ug/L		92	70 - 130
Bromoform	20.0	17.0		ug/L		85	70 - 130
Bromomethane	20.0	22.0		ug/L		110	40 - 160
Carbon disulfide	20.0	19.2		ug/L		96	40 - 160
Carbon tetrachloride	20.0	21.1		ug/L		106	70 - 130
Chlorobenzene	20.0	19.1		ug/L		95	70 - 130
Chlorobromomethane	20.0	20.8		ug/L		104	70 - 130
Chlorodibromomethane	20.0	18.2		ug/L		91	70 - 130
Chloroethane	20.0	24.6		ug/L		123	40 - 160
Chloroform	20.0	20.2		ug/L		101	70 - 130
Chloromethane	20.0	17.8		ug/L		89	40 - 160
cis-1,2-Dichloroethene	20.0	20.2		ug/L		101	70 - 130
cis-1,3-Dichloropropene	20.0	16.8		ug/L		84	70 - 130
Cyclohexane	20.0	20.4		ug/L		102	70 - 130
Dichlorobromomethane	20.0	19.5		ug/L		98	70 - 130
Dichlorodifluoromethane	20.0	19.2		ug/L		96	40 - 160
Ethylbenzene	20.0	18.6		ug/L		93	70 - 130
Isopropylbenzene	20.0	18.5		ug/L		93	70 - 130
Methyl acetate	100	98.7		ug/L		99	70 - 130
Methyl tert-butyl ether	20.0	18.7		ug/L		93	70 - 130
Methylcyclohexane	20.0	17.8		ug/L		89	70 - 130
Methylene Chloride	20.0	20.2		ug/L		101	70 - 130
Styrene	20.0	17.2		ug/L		86	70 - 130
Tetrachloroethene	20.0	21.1		ug/L		105	70 - 130
Toluene	20.0	18.3		ug/L		91	70 - 130
trans-1,2-Dichloroethene	20.0	20.8		ug/L		104	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-386348/3
Matrix: Water
Analysis Batch: 386348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
trans-1,3-Dichloropropene			20.0	16.8		ug/L		84	70 - 130		
Trichloroethene			20.0	20.2		ug/L		101	70 - 130		
Trichlorofluoromethane			20.0	26.5		ug/L		132	40 - 160		
Vinyl chloride			20.0	19.5		ug/L		97	70 - 130		
Xylenes, Total			40.0	36.3		ug/L		91	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*
4-Bromofluorobenzene	*109*		*70 - 130*
Dibromofluoromethane (Surr)	*102*		*70 - 130*
Toluene-d8 (Surr)	*91*		*70 - 130*

Lab Sample ID: 460-118951-4 MS
Matrix: Water
Analysis Batch: 386348

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1,1-Trichloroethane	0.28	U	20.0	21.6		ug/L		108	70 - 130		
1,1,2,2-Tetrachloroethane	0.19	U	20.0	16.9		ug/L		84	70 - 130		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	20.0	20.5		ug/L		103	70 - 130		
1,1,2-Trichloroethane	0.080	U	20.0	18.3		ug/L		92	70 - 130		
1,1-Dichloroethane	0.24	U	20.0	19.9		ug/L		100	70 - 130		
1,1-Dichloroethene	0.34	U	20.0	21.6		ug/L		108	70 - 130		
1,2,3-Trichlorobenzene	0.35	U	20.0	18.9		ug/L		95	70 - 130		
1,2,4-Trichlorobenzene	0.27	U	20.0	19.4		ug/L		97	70 - 130		
1,2-Dichlorobenzene	0.22	U	20.0	19.4		ug/L		97	70 - 130		
1,2-Dichloroethane	0.25	U	20.0	19.1		ug/L		95	70 - 130		
1,2-Dichloropropane	0.18	U	20.0	19.3		ug/L		97	70 - 130		
1,3-Dichlorobenzene	0.33	U	20.0	19.4		ug/L		97	70 - 130		
1,4-Dichlorobenzene	0.33	U	20.0	19.4		ug/L		97	70 - 130		
2-Butanone (MEK)	2.2	U	100	104		ug/L		104	40 - 160		
2-Hexanone	0.72	U	100	94.0		ug/L		94	40 - 160		
4-Methyl-2-pentanone (MIBK)	0.63	U	100	101		ug/L		101	40 - 160		
Acetone	5.5		100	88.3		ug/L		83	40 - 160		
Benzene	0.090	U	20.0	19.0		ug/L		95	70 - 130		
Bromoform	0.18	U	20.0	17.1		ug/L		85	70 - 130		
Bromomethane	0.18	U	20.0	21.5		ug/L		108	40 - 160		
Carbon disulfide	0.22	U	20.0	19.9		ug/L		100	40 - 160		
Carbon tetrachloride	0.33	U	20.0	22.2		ug/L		111	70 - 130		
Chlorobenzene	0.24	U	20.0	19.4		ug/L		97	70 - 130		
Chlorobromomethane	0.30	U	20.0	21.7		ug/L		108	70 - 130		
Chlorodibromomethane	0.22	U	20.0	18.6		ug/L		93	70 - 130		
Chloroethane	0.37	U F1	20.0	47.2	F1	ug/L		236	40 - 160		
Chloroform	0.22	U	20.0	21.1		ug/L		106	70 - 130		
Chloromethane	0.22	U	20.0	17.9		ug/L		90	40 - 160		
cis-1,2-Dichloroethene	0.26	U	20.0	21.1		ug/L		105	70 - 130		
cis-1,3-Dichloropropene	0.16	U	20.0	16.9		ug/L		84	70 - 130		

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-118951-4 MS
Matrix: Water
Analysis Batch: 386348

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyclohexane	0.26	U	20.0	21.8		ug/L		109	70 - 130
Dichlorobromomethane	0.15	U	20.0	19.8		ug/L		99	70 - 130
Dichlorodifluoromethane	0.14	U	20.0	19.8		ug/L		99	40 - 160
Ethylbenzene	0.30	U	20.0	20.2		ug/L		101	70 - 130
Isopropylbenzene	0.32	U	20.0	19.5		ug/L		98	70 - 130
Methyl acetate	0.58	U	100	104		ug/L		104	70 - 130
Methyl tert-butyl ether	0.13	U	20.0	18.9		ug/L		94	70 - 130
Methylcyclohexane	0.22	U	20.0	18.8		ug/L		94	70 - 130
Methylene Chloride	0.21	U	20.0	20.4		ug/L		102	70 - 130
Styrene	0.17	U	20.0	17.9		ug/L		89	70 - 130
Tetrachloroethene	0.12	U	20.0	21.4		ug/L		107	70 - 130
Toluene	0.36	J	20.0	19.1		ug/L		94	70 - 130
trans-1,2-Dichloroethene	0.18	U	20.0	21.1		ug/L		105	70 - 130
trans-1,3-Dichloropropene	0.19	U	20.0	16.4		ug/L		82	70 - 130
Trichloroethene	0.22	U	20.0	20.8		ug/L		104	70 - 130
Trichlorofluoromethane	0.15	U	20.0	28.1		ug/L		140	40 - 160
Vinyl chloride	0.060	U	20.0	19.9		ug/L		99	70 - 130
Xylenes, Total	0.28	U	40.0	37.6		ug/L		94	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*
4-Bromofluorobenzene	*111*		*70 - 130*
Dibromofluoromethane (Surr)	*103*		*70 - 130*
Toluene-d8 (Surr)	*93*		*70 - 130*

Lab Sample ID: 460-118951-4 MSD
Matrix: Water
Analysis Batch: 386348

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.28	U	20.0	21.2		ug/L		106	70 - 130	2	20
1,1,2,2-Tetrachloroethane	0.19	U	20.0	16.7		ug/L		83	70 - 130	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	20.0	20.5		ug/L		102	70 - 130	0	20
1,1,2-Trichloroethane	0.080	U	20.0	18.9		ug/L		94	70 - 130	3	20
1,1-Dichloroethane	0.24	U	20.0	20.1		ug/L		100	70 - 130	1	20
1,1-Dichloroethene	0.34	U	20.0	21.8		ug/L		109	70 - 130	1	20
1,2,3-Trichlorobenzene	0.35	U	20.0	19.1		ug/L		96	70 - 130	1	20
1,2,4-Trichlorobenzene	0.27	U	20.0	19.7		ug/L		99	70 - 130	2	20
1,2-Dichlorobenzene	0.22	U	20.0	19.1		ug/L		96	70 - 130	2	20
1,2-Dichloroethane	0.25	U	20.0	19.1		ug/L		96	70 - 130	0	20
1,2-Dichloropropane	0.18	U	20.0	19.7		ug/L		99	70 - 130	2	20
1,3-Dichlorobenzene	0.33	U	20.0	19.1		ug/L		95	70 - 130	2	20
1,4-Dichlorobenzene	0.33	U	20.0	19.3		ug/L		97	70 - 130	1	20
2-Butanone (MEK)	2.2	U	100	102		ug/L		102	40 - 160	1	20
2-Hexanone	0.72	U	100	93.0		ug/L		93	40 - 160	1	20
4-Methyl-2-pentanone (MIBK)	0.63	U	100	100		ug/L		100	40 - 160	1	20
Acetone	5.5		100	88.4		ug/L		83	40 - 160	0	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-118951-4 MSD
Matrix: Water
Analysis Batch: 386348

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.090	U	20.0	19.1		ug/L		95	70 - 130	0	20
Bromoform	0.18	U	20.0	17.4		ug/L		87	70 - 130	2	20
Bromomethane	0.18	U	20.0	23.3		ug/L		116	40 - 160	8	20
Carbon disulfide	0.22	U	20.0	20.6		ug/L		103	40 - 160	3	20
Carbon tetrachloride	0.33	U	20.0	22.6		ug/L		113	70 - 130	2	20
Chlorobenzene	0.24	U	20.0	19.9		ug/L		100	70 - 130	3	20
Chlorobromomethane	0.30	U	20.0	21.9		ug/L		109	70 - 130	1	20
Chlorodibromomethane	0.22	U	20.0	18.7		ug/L		93	70 - 130	0	20
Chloroethane	0.37	U F1	20.0	45.2	F1	ug/L		226	40 - 160	4	20
Chloroform	0.22	U	20.0	21.4		ug/L		107	70 - 130	1	20
Chloromethane	0.22	U	20.0	18.4		ug/L		92	40 - 160	3	20
cis-1,2-Dichloroethene	0.26	U	20.0	21.5		ug/L		108	70 - 130	2	20
cis-1,3-Dichloropropene	0.16	U	20.0	17.0		ug/L		85	70 - 130	1	20
Cyclohexane	0.26	U	20.0	22.1		ug/L		111	70 - 130	1	20
Dichlorobromomethane	0.15	U	20.0	20.2		ug/L		101	70 - 130	2	20
Dichlorodifluoromethane	0.14	U	20.0	20.2		ug/L		101	40 - 160	2	20
Ethylbenzene	0.30	U	20.0	19.7		ug/L		99	70 - 130	3	20
Isopropylbenzene	0.32	U	20.0	19.6		ug/L		98	70 - 130	1	20
Methyl acetate	0.58	U	100	99.0		ug/L		99	70 - 130	4	20
Methyl tert-butyl ether	0.13	U	20.0	18.7		ug/L		93	70 - 130	1	20
Methylcyclohexane	0.22	U	20.0	19.3		ug/L		96	70 - 130	3	20
Methylene Chloride	0.21	U	20.0	20.9		ug/L		105	70 - 130	3	20
Styrene	0.17	U	20.0	18.0		ug/L		90	70 - 130	1	20
Tetrachloroethene	0.12	U	20.0	22.2		ug/L		111	70 - 130	4	20
Toluene	0.36	J	20.0	19.5		ug/L		96	70 - 130	2	20
trans-1,2-Dichloroethene	0.18	U	20.0	21.3		ug/L		107	70 - 130	1	20
trans-1,3-Dichloropropene	0.19	U	20.0	17.0		ug/L		85	70 - 130	3	20
Trichloroethene	0.22	U	20.0	21.1		ug/L		106	70 - 130	2	20
Trichlorofluoromethane	0.15	U	20.0	28.2		ug/L		141	40 - 160	1	20
Vinyl chloride	0.060	U	20.0	20.3		ug/L		102	70 - 130	2	20
Xylenes, Total	0.28	U	40.0	37.7		ug/L		94	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*
4-Bromofluorobenzene	*107*		*70 - 130*
Dibromofluoromethane (Surr)	*102*		*70 - 130*
Toluene-d8 (Surr)	*91*		*70 - 130*

Lab Sample ID: MB 460-386590/7
Matrix: Water
Analysis Batch: 386590

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 01:00	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 01:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 01:00	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 01:00	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 01:00	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-386590/7
Matrix: Water
Analysis Batch: 386590

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 01:00	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 01:00	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 01:00	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 01:00	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 01:00	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 01:00	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 01:00	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 01:00	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 01:00	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 01:00	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 01:00	1
Acetone	1.1	U	5.0	1.1	ug/L			08/25/16 01:00	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 01:00	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 01:00	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 01:00	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 01:00	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 01:00	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 01:00	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 01:00	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 01:00	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 01:00	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 01:00	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 01:00	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 01:00	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 01:00	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 01:00	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 01:00	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 01:00	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 01:00	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 01:00	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 01:00	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 01:00	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 01:00	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 01:00	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 01:00	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 01:00	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 01:00	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 01:00	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 01:00	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 01:00	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 01:00	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 01:00	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 01:00	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 01:00*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-386590/7
Matrix: Water
Analysis Batch: 386590

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		08/25/16 01:00	1
4-Bromofluorobenzene	107		70 - 130		08/25/16 01:00	1
Dibromofluoromethane (Surr)	105		70 - 130		08/25/16 01:00	1
Toluene-d8 (Surr)	91		70 - 130		08/25/16 01:00	1

Lab Sample ID: LCS 460-386590/3
Matrix: Water
Analysis Batch: 386590

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	24.0		ug/L		120	70 - 130
1,1,2,2-Tetrachloroethane	20.0	18.4		ug/L		92	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.7		ug/L		113	70 - 130
1,1,2-Trichloroethane	20.0	20.0		ug/L		100	70 - 130
1,1-Dichloroethane	20.0	22.8		ug/L		114	70 - 130
1,1-Dichloroethene	20.0	24.5		ug/L		123	70 - 130
1,2,3-Trichlorobenzene	20.0	21.9		ug/L		110	70 - 130
1,2,4-Trichlorobenzene	20.0	22.0		ug/L		110	70 - 130
1,2-Dichlorobenzene	20.0	20.9		ug/L		104	70 - 130
1,2-Dichloroethane	20.0	21.5		ug/L		108	70 - 130
1,2-Dichloropropane	20.0	21.7		ug/L		108	70 - 130
1,3-Dichlorobenzene	20.0	21.0		ug/L		105	70 - 130
1,4-Dichlorobenzene	20.0	20.6		ug/L		103	70 - 130
2-Butanone (MEK)	100	116		ug/L		116	40 - 160
2-Hexanone	100	102		ug/L		102	40 - 160
4-Methyl-2-pentanone (MIBK)	100	110		ug/L		110	40 - 160
Acetone	100	102		ug/L		102	40 - 160
Benzene	20.0	20.8		ug/L		104	70 - 130
Bromoform	20.0	19.2		ug/L		96	70 - 130
Bromomethane	20.0	23.5		ug/L		118	40 - 160
Carbon disulfide	20.0	24.0		ug/L		120	40 - 160
Carbon tetrachloride	20.0	24.6		ug/L		123	70 - 130
Chlorobenzene	20.0	21.4		ug/L		107	70 - 130
Chlorobromomethane	20.0	23.5		ug/L		118	70 - 130
Chlorodibromomethane	20.0	20.4		ug/L		102	70 - 130
Chloroethane	20.0	25.2		ug/L		126	40 - 160
Chloroform	20.0	23.7		ug/L		119	70 - 130
Chloromethane	20.0	19.4		ug/L		97	40 - 160
cis-1,2-Dichloroethene	20.0	23.6		ug/L		118	70 - 130
cis-1,3-Dichloropropene	20.0	18.6		ug/L		93	70 - 130
Cyclohexane	20.0	23.8		ug/L		119	70 - 130
Dichlorobromomethane	20.0	22.6		ug/L		113	70 - 130
Dichlorodifluoromethane	20.0	21.2		ug/L		106	40 - 160
Ethylbenzene	20.0	21.3		ug/L		106	70 - 130
Isopropylbenzene	20.0	20.8		ug/L		104	70 - 130
Methyl acetate	100	109		ug/L		109	70 - 130
Methyl tert-butyl ether	20.0	21.2		ug/L		106	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-386590/3
Matrix: Water
Analysis Batch: 386590

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylcyclohexane	20.0	20.8		ug/L		104	70 - 130
Methylene Chloride	20.0	23.9		ug/L		120	70 - 130
Styrene	20.0	19.1		ug/L		96	70 - 130
Tetrachloroethene	20.0	23.2		ug/L		116	70 - 130
Toluene	20.0	20.8		ug/L		104	70 - 130
trans-1,2-Dichloroethene	20.0	24.6		ug/L		123	70 - 130
trans-1,3-Dichloropropene	20.0	18.6		ug/L		93	70 - 130
Trichloroethene	20.0	22.9		ug/L		114	70 - 130
Trichlorofluoromethane	20.0	26.5		ug/L		133	40 - 160
Vinyl chloride	20.0	21.4		ug/L		107	70 - 130
Xylenes, Total	40.0	39.9		ug/L		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene	*123*		*70 - 130*
Dibromofluoromethane (Surr)	*116*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 460-386590/4
Matrix: Water
Analysis Batch: 386590

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	22.4		ug/L		112	70 - 130	7	20
1,1,2,2-Tetrachloroethane	20.0	16.9		ug/L		84	70 - 130	8	20
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.9		ug/L		110	70 - 130	3	20
1,1,2-Trichloroethane	20.0	18.5		ug/L		93	70 - 130	7	20
1,1-Dichloroethane	20.0	21.2		ug/L		106	70 - 130	7	20
1,1-Dichloroethene	20.0	22.7		ug/L		113	70 - 130	8	20
1,2,3-Trichlorobenzene	20.0	20.0		ug/L		100	70 - 130	9	20
1,2,4-Trichlorobenzene	20.0	19.4		ug/L		97	70 - 130	13	20
1,2-Dichlorobenzene	20.0	19.1		ug/L		96	70 - 130	9	20
1,2-Dichloroethane	20.0	20.2		ug/L		101	70 - 130	7	20
1,2-Dichloropropane	20.0	20.3		ug/L		102	70 - 130	6	20
1,3-Dichlorobenzene	20.0	19.1		ug/L		96	70 - 130	9	20
1,4-Dichlorobenzene	20.0	19.2		ug/L		96	70 - 130	7	20
2-Butanone (MEK)	100	108		ug/L		108	40 - 160	8	20
2-Hexanone	100	94.7		ug/L		95	40 - 160	7	20
4-Methyl-2-pentanone (MIBK)	100	102		ug/L		102	40 - 160	8	20
Acetone	100	93.6		ug/L		94	40 - 160	8	20
Benzene	20.0	19.3		ug/L		97	70 - 130	7	20
Bromoform	20.0	17.4		ug/L		87	70 - 130	10	20
Bromomethane	20.0	22.1		ug/L		111	40 - 160	6	20
Carbon disulfide	20.0	22.2		ug/L		111	40 - 160	8	20
Carbon tetrachloride	20.0	23.1		ug/L		115	70 - 130	6	20
Chlorobenzene	20.0	19.7		ug/L		99	70 - 130	8	20
Chlorobromomethane	20.0	22.1		ug/L		111	70 - 130	6	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-386590/4
Matrix: Water
Analysis Batch: 386590

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorodibromomethane			20.0	18.7		ug/L		93	70 - 130	9	20
Chloroethane			20.0	26.4		ug/L		132	40 - 160	5	20
Chloroform			20.0	21.9		ug/L		109	70 - 130	8	20
Chloromethane			20.0	18.1		ug/L		91	40 - 160	7	20
cis-1,2-Dichloroethene			20.0	21.7		ug/L		109	70 - 130	9	20
cis-1,3-Dichloropropene			20.0	17.3		ug/L		87	70 - 130	7	20
Cyclohexane			20.0	22.9		ug/L		114	70 - 130	4	20
Dichlorobromomethane			20.0	21.1		ug/L		105	70 - 130	7	20
Dichlorodifluoromethane			20.0	20.9		ug/L		105	40 - 160	2	20
Ethylbenzene			20.0	19.6		ug/L		98	70 - 130	8	20
Isopropylbenzene			20.0	19.2		ug/L		96	70 - 130	8	20
Methyl acetate			100	105		ug/L		105	70 - 130	4	20
Methyl tert-butyl ether			20.0	19.8		ug/L		99	70 - 130	7	20
Methylcyclohexane			20.0	19.5		ug/L		97	70 - 130	7	20
Methylene Chloride			20.0	22.2		ug/L		111	70 - 130	8	20
Styrene			20.0	18.1		ug/L		91	70 - 130	5	20
Tetrachloroethene			20.0	21.8		ug/L		109	70 - 130	6	20
Toluene			20.0	19.0		ug/L		95	70 - 130	9	20
trans-1,2-Dichloroethene			20.0	22.7		ug/L		113	70 - 130	8	20
trans-1,3-Dichloropropene			20.0	17.5		ug/L		87	70 - 130	6	20
Trichloroethene			20.0	21.3		ug/L		107	70 - 130	7	20
Trichlorofluoromethane			20.0	26.9		ug/L		135	40 - 160	1	20
Vinyl chloride			20.0	20.1		ug/L		100	70 - 130	7	20
Xylenes, Total			40.0	37.2		ug/L		93	70 - 130	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene	*110*		*70 - 130*
Dibromofluoromethane (Surr)	*105*		*70 - 130*
Toluene-d8 (Surr)	*91*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-386650/7
Matrix: Water
Analysis Batch: 386650

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 09:26	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 09:26	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 09:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*08/25/16 09:26*	*1*
4-Bromofluorobenzene	*95*		*70 - 130*		*08/25/16 09:26*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-386650/3
Matrix: Water
Analysis Batch: 386650

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.500	0.315		ug/L		63	40 - 160
Ethylene Dibromide	0.500	0.510		ug/L		102	70 - 130
1,2,3-Trichloropropane	0.500	0.441		ug/L		88	40 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*
4-Bromofluorobenzene	*99*		*70 - 130*

Lab Sample ID: LCSD 460-386650/4
Matrix: Water
Analysis Batch: 386650

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.500	0.371		ug/L		74	40 - 160	16	20
Ethylene Dibromide	0.500	0.577		ug/L		115	70 - 130	12	20
1,2,3-Trichloropropane	0.500	0.473		ug/L		95	40 - 160	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*
4-Bromofluorobenzene	*94*		*70 - 130*

Lab Sample ID: MB 460-386835/7
Matrix: Water
Analysis Batch: 386835

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 21:57	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 21:57	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 21:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/25/16 21:57*	*1*
4-Bromofluorobenzene	*90*		*70 - 130*		*08/25/16 21:57*	*1*

Lab Sample ID: LCS 460-386835/3
Matrix: Water
Analysis Batch: 386835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.500	0.294		ug/L		59	40 - 160
Ethylene Dibromide	0.500	0.501		ug/L		100	70 - 130
1,2,3-Trichloropropane	0.500	0.425		ug/L		85	40 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene	*98*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-386835/4
Matrix: Water
Analysis Batch: 386835

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.500	0.299		ug/L		60	40 - 160	2	20
Ethylene Dibromide			0.500	0.525		ug/L		105	70 - 130	5	20
1,2,3-Trichloropropane			0.500	0.427		ug/L		85	40 - 160	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*
4-Bromofluorobenzene	*99*		*70 - 130*

Lab Sample ID: MB 460-387501/7
Matrix: Water
Analysis Batch: 387501

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/29/16 23:04	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/29/16 23:04	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/29/16 23:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/29/16 23:04*	*1*
4-Bromofluorobenzene	*88*		*70 - 130*		*08/29/16 23:04*	*1*

Lab Sample ID: LCS 460-387501/3
Matrix: Water
Analysis Batch: 387501

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane			0.500	0.289		ug/L		58	40 - 160
Ethylene Dibromide			0.500	0.439		ug/L		88	70 - 130
1,2,3-Trichloropropane			0.500	0.414		ug/L		83	40 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene	*93*		*70 - 130*

Lab Sample ID: 460-118951-4 MS
Matrix: Water
Analysis Batch: 387501

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.0070	U	0.500	0.306		ug/L		61	40 - 160
Ethylene Dibromide	0.0060	U	0.500	0.602		ug/L		120	70 - 130
1,2,3-Trichloropropane	0.011	U	0.500	0.486		ug/L		97	40 - 160

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene	*89*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-118951-4 MSD
Matrix: Water
Analysis Batch: 387501

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.0070	U	0.500	0.271		ug/L		54	40 - 160	12	20
Ethylene Dibromide	0.0060	U	0.500	0.463	F2	ug/L		93	70 - 130	26	20
1,2,3-Trichloropropane	0.011	U	0.500	0.403		ug/L		81	40 - 160	19	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*
4-Bromofluorobenzene	*92*		*70 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-386536/1-A
Matrix: Water
Analysis Batch: 387628

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386536

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/24/16 12:24	08/30/16 15:10	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/24/16 12:24	08/30/16 15:10	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/24/16 12:24	08/30/16 15:10	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/24/16 12:24	08/30/16 15:10	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/24/16 12:24	08/30/16 15:10	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/24/16 12:24	08/30/16 15:10	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 15:10	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/24/16 12:24	08/30/16 15:10	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		08/24/16 12:24	08/30/16 15:10	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/24/16 12:24	08/30/16 15:10	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/24/16 12:24	08/30/16 15:10	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/24/16 12:24	08/30/16 15:10	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/24/16 12:24	08/30/16 15:10	1
Pentachlorophenol	2.2	U	20	2.2	ug/L		08/24/16 12:24	08/30/16 15:10	1
Bis(2-chloroethyl)ether	0.12	U	1.0	0.12	ug/L		08/24/16 12:24	08/30/16 15:10	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/24/16 12:24	08/30/16 15:10	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/24/16 12:24	08/30/16 15:10	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/24/16 12:24	08/30/16 15:10	1
Isophorone	0.67	U	10	0.67	ug/L		08/24/16 12:24	08/30/16 15:10	1
Naphthalene	0.80	U	10	0.80	ug/L		08/24/16 12:24	08/30/16 15:10	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/24/16 12:24	08/30/16 15:10	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/24/16 12:24	08/30/16 15:10	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/24/16 12:24	08/30/16 15:10	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 15:10	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/24/16 12:24	08/30/16 15:10	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/24/16 12:24	08/30/16 15:10	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/24/16 12:24	08/30/16 15:10	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/24/16 12:24	08/30/16 15:10	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/24/16 12:24	08/30/16 15:10	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/24/16 12:24	08/30/16 15:10	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/24/16 12:24	08/30/16 15:10	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 15:10	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-386536/1-A
Matrix: Water
Analysis Batch: 387628

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386536

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/24/16 12:24	08/30/16 15:10	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 15:10	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/24/16 12:24	08/30/16 15:10	1
Fluorene	0.80	U	10	0.80	ug/L		08/24/16 12:24	08/30/16 15:10	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/24/16 12:24	08/30/16 15:10	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/24/16 12:24	08/30/16 15:10	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 15:10	1
Hexachlorobenzene	0.47	U	1.0	0.47	ug/L		08/24/16 12:24	08/30/16 15:10	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/24/16 12:24	08/30/16 15:10	1
Anthracene	0.57	U	10	0.57	ug/L		08/24/16 12:24	08/30/16 15:10	1
Carbazole	0.85	U	10	0.85	ug/L		08/24/16 12:24	08/30/16 15:10	1
Di-n-butyl phthalate	0.82	U	10	0.82	ug/L		08/24/16 12:24	08/30/16 15:10	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/24/16 12:24	08/30/16 15:10	1
Pyrene	0.83	U	10	0.83	ug/L		08/24/16 12:24	08/30/16 15:10	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/24/16 12:24	08/30/16 15:10	1
Benzo[a]anthracene	0.55	U	1.0	0.55	ug/L		08/24/16 12:24	08/30/16 15:10	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/24/16 12:24	08/30/16 15:10	1
Bis(2-ethylhexyl) phthalate	0.72	U	2.0	0.72	ug/L		08/24/16 12:24	08/30/16 15:10	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/24/16 12:24	08/30/16 15:10	1
Benzo[b]fluoranthene	0.44	U	1.0	0.44	ug/L		08/24/16 12:24	08/30/16 15:10	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/24/16 12:24	08/30/16 15:10	1
Benzo[a]pyrene	0.16	U	1.0	0.16	ug/L		08/24/16 12:24	08/30/16 15:10	1
Indeno[1,2,3-cd]pyrene	0.21	U	1.0	0.21	ug/L		08/24/16 12:24	08/30/16 15:10	1
Dibenz(a,h)anthracene	0.090	U	1.0	0.090	ug/L		08/24/16 12:24	08/30/16 15:10	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/24/16 12:24	08/30/16 15:10	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/24/16 12:24	08/30/16 15:10	1
Acetophenone	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 15:10	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/24/16 12:24	08/30/16 15:10	1
Caprolactam	1.1	U	10	1.1	ug/L		08/24/16 12:24	08/30/16 15:10	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/24/16 12:24	08/30/16 15:10	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/24/16 12:24	08/30/16 15:10	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/24/16 12:24	08/30/16 15:10	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/24/16 12:24	08/30/16 15:10	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/24/16 12:24	08/30/16 15:10	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/24/16 12:24	08/30/16 15:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*82*		*30 - 130*	*08/24/16 12:24*	*08/30/16 15:10*	*1*
Phenol-d5 (Surr)	*21*		*15 - 110*	*08/24/16 12:24*	*08/30/16 15:10*	*1*
Terphenyl-d14 (Surr)	*94*		*30 - 130*	*08/24/16 12:24*	*08/30/16 15:10*	*1*
2,4,6-Tribromophenol (Surr)	*108*		*15 - 110*	*08/24/16 12:24*	*08/30/16 15:10*	*1*
2-Fluorophenol (Surr)	*35*		*15 - 110*	*08/24/16 12:24*	*08/30/16 15:10*	*1*
2-Fluorobiphenyl	*81*		*30 - 130*	*08/24/16 12:24*	*08/30/16 15:10*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-386536/2-A
Matrix: Water
Analysis Batch: 387628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386536

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	80.0	24.0		ug/L		30	20 - 160
2-Chlorophenol	80.0	62.6		ug/L		78	70 - 130
2-Methylphenol	80.0	59.2		ug/L		74	70 - 130
4-Methylphenol	80.0	49.5		ug/L		62	20 - 160
2-Nitrophenol	80.0	67.4		ug/L		84	70 - 130
2,4-Dimethylphenol	80.0	62.3		ug/L		78	70 - 130
2,4-Dichlorophenol	80.0	65.1		ug/L		81	70 - 130
4-Chloro-3-methylphenol	80.0	70.9		ug/L		89	20 - 160
2,4,6-Trichlorophenol	80.0	64.3		ug/L		80	70 - 130
2,4,5-Trichlorophenol	80.0	61.6		ug/L		77	20 - 160
2,4-Dinitrotoluene	80.0	75.9		ug/L		95	70 - 130
4-Nitrophenol	160	41.4		ug/L		26	20 - 160
4,6-Dinitro-2-methylphenol	160	135		ug/L		85	20 - 160
Pentachlorophenol	160	155		ug/L		97	20 - 160
Bis(2-chloroethyl)ether	80.0	65.5		ug/L		82	70 - 130
N-Nitrosodi-n-propylamine	80.0	85.2		ug/L		106	70 - 130
Hexachloroethane	80.0	66.1		ug/L		83	20 - 160
Nitrobenzene	80.0	77.2		ug/L		97	70 - 130
Isophorone	80.0	67.9		ug/L		85	70 - 130
Naphthalene	80.0	59.8		ug/L		75	70 - 130
4-Chloroaniline	80.0	74.3		ug/L		93	20 - 160
Hexachlorobutadiene	80.0	61.1		ug/L		76	70 - 130
2-Methylnaphthalene	80.0	73.8		ug/L		92	70 - 130
Hexachlorocyclopentadiene	80.0	49.0		ug/L		61	20 - 160
2-Chloronaphthalene	80.0	63.7		ug/L		80	70 - 130
2-Nitroaniline	80.0	63.8		ug/L		80	20 - 160
Dimethyl phthalate	80.0	70.7		ug/L		88	70 - 130
Acenaphthylene	80.0	66.1		ug/L		83	70 - 130
2,6-Dinitrotoluene	80.0	74.7		ug/L		93	70 - 130
3-Nitroaniline	80.0	63.8		ug/L		80	20 - 160
Acenaphthene	80.0	65.3		ug/L		82	70 - 130
Dibenzofuran	80.0	69.0		ug/L		86	70 - 130
2,4-Dinitrophenol	160	111		ug/L		69	20 - 160
Diethyl phthalate	80.0	70.0		ug/L		88	70 - 130
4-Chlorophenyl phenyl ether	80.0	71.1		ug/L		89	70 - 130
Fluorene	80.0	71.7		ug/L		90	70 - 130
4-Nitroaniline	80.0	61.7		ug/L		77	20 - 160
N-Nitrosodiphenylamine	80.0	75.5		ug/L		94	70 - 130
4-Bromophenyl phenyl ether	80.0	70.4		ug/L		88	70 - 130
Hexachlorobenzene	80.0	72.8		ug/L		91	70 - 130
Phenanthrene	80.0	73.7		ug/L		92	70 - 130
Anthracene	80.0	73.8		ug/L		92	70 - 130
Carbazole	80.0	75.3		ug/L		94	70 - 130
Di-n-butyl phthalate	80.0	75.2		ug/L		94	70 - 130
Fluoranthene	80.0	77.2		ug/L		97	70 - 130
Pyrene	80.0	69.7		ug/L		87	70 - 130
Butyl benzyl phthalate	80.0	75.8		ug/L		95	70 - 130
Benzo[a]anthracene	80.0	71.7		ug/L		90	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-386536/2-A
Matrix: Water
Analysis Batch: 387628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386536

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	80.0	71.8		ug/L		90	70 - 130
Bis(2-ethylhexyl) phthalate	80.0	68.0		ug/L		85	70 - 130
Di-n-octyl phthalate	80.0	77.1		ug/L		96	70 - 130
Benzo[b]fluoranthene	80.0	72.8		ug/L		91	70 - 130
Benzo[k]fluoranthene	80.0	73.4		ug/L		92	70 - 130
Benzo[a]pyrene	80.0	75.8		ug/L		95	70 - 130
Indeno[1,2,3-cd]pyrene	80.0	79.9		ug/L		100	70 - 130
Dibenz(a,h)anthracene	80.0	79.6		ug/L		99	70 - 130
Benzo[g,h,i]perylene	80.0	81.3		ug/L		102	70 - 130
1,1'-Biphenyl	80.0	71.8		ug/L		90	70 - 130
Acetophenone	80.0	81.7		ug/L		102	70 - 130
2,2'-oxybis[1-chloropropane]	80.0	76.2		ug/L		95	70 - 130
1,2,4,5-Tetrachlorobenzene	80.0	60.3		ug/L		75	70 - 130
2,3,4,6-Tetrachlorophenol	80.0	70.6		ug/L		88	70 - 130
3,3'-Dichlorobenzidine	80.0	65.9		ug/L		82	70 - 130
Bis(2-chloroethoxy)methane	80.0	73.5		ug/L		92	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*86*		*30 - 130*
Phenol-d5 (Surr)	*28*		*15 - 110*
Terphenyl-d14 (Surr)	*81*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*84*		*15 - 110*
2-Fluorophenol (Surr)	*37*		*15 - 110*
2-Fluorobiphenyl	*77*		*30 - 130*

Lab Sample ID: LCS 460-386536/3-A
Matrix: Water
Analysis Batch: 387628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386536

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzaldehyde	160	158		ug/L		99	20 - 160
Caprolactam	160	51.9		ug/L		32	20 - 160
Atrazine	160	170		ug/L		106	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*88*		*30 - 130*
Phenol-d5 (Surr)	*22*		*15 - 110*
Terphenyl-d14 (Surr)	*94*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*105*		*15 - 110*
2-Fluorophenol (Surr)	*47*		*15 - 110*
2-Fluorobiphenyl	*87*		*30 - 130*

Lab Sample ID: 460-118951-4 MS
Matrix: Water
Analysis Batch: 387628

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA
Prep Batch: 386536

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.43	U	83.3	28.0		ug/L		34	20 - 160

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-118951-4 MS | **Client Sample ID: SR3-Pond-081916**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 387628 | **Prep Batch: 386536**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorophenol	0.77	U	83.3	72.5		ug/L		87	70 - 130
2-Methylphenol	1.3	U F1	83.3	61.0		ug/L		73	70 - 130
4-Methylphenol	0.91	U	83.3	49.5		ug/L		59	20 - 160
2-Nitrophenol	0.61	U	83.3	70.4		ug/L		84	70 - 130
2,4-Dimethylphenol	0.95	U	83.3	65.9		ug/L		79	70 - 130
2,4-Dichlorophenol	0.66	U	83.3	74.7		ug/L		90	70 - 130
4-Chloro-3-methylphenol	0.79	U	83.3	75.3		ug/L		90	20 - 160
2,4,6-Trichlorophenol	0.55	U	83.3	74.0		ug/L		89	20 - 160
2,4,5-Trichlorophenol	0.51	U	83.3	84.9		ug/L		102	20 - 160
2,4-Dinitrotoluene	1.1	U	83.3	88.9		ug/L		107	70 - 130
4-Nitrophenol	4.8	U	167	57.3		ug/L		34	20 - 160
4,6-Dinitro-2-methylphenol	2.1	U	167	156		ug/L		94	20 - 160
Pentachlorophenol	2.3	U	167	196		ug/L		117	20 - 160
Bis(2-chloroethyl)ether	0.13	U	83.3	69.9		ug/L		84	70 - 130
N-Nitrosodi-n-propylamine	0.86	U	83.3	84.7		ug/L		102	70 - 130
Hexachloroethane	0.094	U	83.3	75.0		ug/L		90	20 - 160
Nitrobenzene	0.51	U	83.3	75.7		ug/L		91	70 - 130
Isophorone	0.70	U	83.3	76.0		ug/L		91	70 - 130
Naphthalene	0.83	U	83.3	71.8		ug/L		86	70 - 130
4-Chloroaniline	0.76	U	83.3	60.9		ug/L		73	20 - 160
Hexachlorobutadiene	0.79	U	83.3	76.9		ug/L		92	70 - 130
2-Methylnaphthalene	0.92	U	83.3	83.9		ug/L		101	70 - 130
Hexachlorocyclopentadiene	0.64	U	83.3	71.2		ug/L		85	20 - 160
2-Chloronaphthalene	0.64	U	83.3	86.9		ug/L		104	70 - 130
2-Nitroaniline	0.68	U	83.3	90.1		ug/L		108	20 - 160
Dimethyl phthalate	1.0	U	83.3	90.0		ug/L		108	70 - 130
Acenaphthylene	0.68	U	83.3	89.7		ug/L		108	70 - 130
2,6-Dinitrotoluene	0.92	U	83.3	85.7		ug/L		103	70 - 130
3-Nitroaniline	0.85	U	83.3	65.3		ug/L		78	20 - 160
Acenaphthene	0.92	U	83.3	85.6		ug/L		103	70 - 130
Dibenzofuran	0.89	U	83.3	85.2		ug/L		102	70 - 130
2,4-Dinitrophenol	2.5	U	167	145		ug/L		87	20 - 160
Diethyl phthalate	1.0	U	83.3	87.0		ug/L		104	70 - 130
4-Chlorophenyl phenyl ether	1.0	U	83.3	88.5		ug/L		106	70 - 130
Fluorene	0.83	U	83.3	87.5		ug/L		105	70 - 130
4-Nitroaniline	0.50	U	83.3	68.7		ug/L		82	20 - 160
N-Nitrosodiphenylamine	0.77	U	83.3	78.2		ug/L		94	70 - 130
4-Bromophenyl phenyl ether	1.1	U	83.3	85.2		ug/L		102	70 - 130
Hexachlorobenzene	0.49	U	83.3	81.4		ug/L		98	70 - 130
Phenanthrene	0.68	U	83.3	85.3		ug/L		102	70 - 130
Anthracene	0.59	U	83.3	84.8		ug/L		102	70 - 130
Carbazole	0.89	U	83.3	86.1		ug/L		103	70 - 130
Di-n-butyl phthalate	1.3	J	83.3	84.1		ug/L		99	70 - 130
Fluoranthene	0.75	U	83.3	84.4		ug/L		101	70 - 130
Pyrene	0.86	U F2	83.3	81.4		ug/L		98	70 - 130
Butyl benzyl phthalate	0.63	U	83.3	86.7		ug/L		104	70 - 130
Benzo[a]anthracene	0.57	U	83.3	86.4		ug/L		104	70 - 130
Chrysene	0.70	U	83.3	88.9		ug/L		107	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-118951-4 MS
Matrix: Water
Analysis Batch: 387628

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA
Prep Batch: 386536

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	1.5	J	83.3	82.5		ug/L		97	70 - 130
Di-n-octyl phthalate	0.72	U	83.3	85.1		ug/L		102	70 - 130
Benzo[b]fluoranthene	0.46	U	83.3	90.5		ug/L		109	70 - 130
Benzo[k]fluoranthene	0.19	U	83.3	84.0		ug/L		101	70 - 130
Benzo[a]pyrene	0.17	U	83.3	83.2		ug/L		100	70 - 130
Indeno[1,2,3-cd]pyrene	0.22	U	83.3	85.0		ug/L		102	70 - 130
Dibenz(a,h)anthracene	0.094	U	83.3	93.4		ug/L		112	70 - 130
Benzo[g,h,i]perylene	0.78	U	83.3	81.0		ug/L		97	70 - 130
1,1'-Biphenyl	0.66	U	83.3	93.1		ug/L		112	70 - 130
Acetophenone	1.1	U	83.3	86.0		ug/L		103	70 - 130
Benzaldehyde	0.90	U	167	146		ug/L		88	20 - 160
Caprolactam	1.1	U	167	40.5		ug/L		24	20 - 160
Atrazine	0.80	U	167	156		ug/L		94	70 - 130
2,2'-oxybis[1-chloropropane]	0.97	U	83.3	85.2		ug/L		102	70 - 130
1,2,4,5-Tetrachlorobenzene	0.45	U	83.3	72.7		ug/L		87	70 - 130
2,3,4,6-Tetrachlorophenol	0.72	U	83.3	92.4		ug/L		111	70 - 130
3,3'-Dichlorobenzidine	1.1	U	83.3	72.1		ug/L		87	70 - 130
Bis(2-chloroethoxy)methane	0.72	U	83.3	80.5		ug/L		97	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*86*		*30 - 130*
Phenol-d5 (Surr)	*26*		*15 - 110*
Terphenyl-d14 (Surr)	*88*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*106*		*15 - 110*
2-Fluorophenol (Surr)	*41*		*15 - 110*
2-Fluorobiphenyl	*100*		*30 - 130*

Lab Sample ID: 460-118951-4 MSD
Matrix: Water
Analysis Batch: 387628

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA
Prep Batch: 386536

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.43	U	83.3	24.7		ug/L		30	20 - 160	13	20
2-Chlorophenol	0.77	U	83.3	59.3		ug/L		71	70 - 130	20	20
2-Methylphenol	1.3	U F1	83.3	51.1	F1	ug/L		61	70 - 130	18	20
4-Methylphenol	0.91	U	83.3	52.1		ug/L		62	20 - 160	5	20
2-Nitrophenol	0.61	U	83.3	77.7		ug/L		93	70 - 130	10	20
2,4-Dimethylphenol	0.95	U	83.3	65.5		ug/L		79	70 - 130	1	20
2,4-Dichlorophenol	0.66	U	83.3	72.1		ug/L		86	70 - 130	4	20
4-Chloro-3-methylphenol	0.79	U	83.3	71.6		ug/L		86	20 - 160	5	20
2,4,6-Trichlorophenol	0.55	U	83.3	73.7		ug/L		88	20 - 160	0	20
2,4,5-Trichlorophenol	0.51	U	83.3	73.3		ug/L		88	20 - 160	15	20
2,4-Dinitrotoluene	1.1	U	83.3	84.6		ug/L		102	70 - 130	5	20
4-Nitrophenol	4.8	U	167	47.2		ug/L		28	20 - 160	19	20
4,6-Dinitro-2-methylphenol	2.1	U	167	157		ug/L		94	20 - 160	1	20
Pentachlorophenol	2.3	U	167	169		ug/L		101	20 - 160	15	20
Bis(2-chloroethyl)ether	0.13	U	83.3	66.6		ug/L		80	70 - 130	5	20
N-Nitrosodi-n-propylamine	0.86	U	83.3	85.6		ug/L		103	70 - 130	1	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-118951-4 MSD
Matrix: Water
Analysis Batch: 387628

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA
Prep Batch: 386536

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hexachloroethane	0.094	U	83.3	75.8		ug/L		91	20 - 160	1	20
Nitrobenzene	0.51	U	83.3	73.4		ug/L		88	70 - 130	3	20
Isophorone	0.70	U	83.3	75.2		ug/L		90	70 - 130	1	20
Naphthalene	0.83	U	83.3	74.2		ug/L		89	70 - 130	3	20
4-Chloroaniline	0.76	U	83.3	54.6		ug/L		65	20 - 160	11	20
Hexachlorobutadiene	0.79	U	83.3	72.9		ug/L		87	70 - 130	5	20
2-Methylnaphthalene	0.92	U	83.3	77.7		ug/L		93	70 - 130	8	20
Hexachlorocyclopentadiene	0.64	U	83.3	68.8		ug/L		83	20 - 160	3	20
2-Chloronaphthalene	0.64	U	83.3	79.6		ug/L		96	70 - 130	9	20
2-Nitroaniline	0.68	U	83.3	76.7		ug/L		92	20 - 160	16	20
Dimethyl phthalate	1.0	U	83.3	80.2		ug/L		96	70 - 130	11	20
Acenaphthylene	0.68	U	83.3	85.0		ug/L		102	70 - 130	5	20
2,6-Dinitrotoluene	0.92	U	83.3	83.4		ug/L		100	70 - 130	3	20
3-Nitroaniline	0.85	U	83.3	57.2		ug/L		69	20 - 160	13	20
Acenaphthene	0.92	U	83.3	72.3		ug/L		87	70 - 130	17	20
Dibenzofuran	0.89	U	83.3	79.5		ug/L		95	70 - 130	7	20
2,4-Dinitrophenol	2.5	U	167	137		ug/L		82	20 - 160	6	20
Diethyl phthalate	1.0	U	83.3	77.5		ug/L		93	70 - 130	12	20
4-Chlorophenyl phenyl ether	1.0	U	83.3	80.3		ug/L		96	70 - 130	10	20
Fluorene	0.83	U	83.3	79.3		ug/L		95	70 - 130	10	20
4-Nitroaniline	0.50	U	83.3	65.6		ug/L		79	20 - 160	5	20
N-Nitrosodiphenylamine	0.77	U	83.3	83.9		ug/L		101	70 - 130	7	20
4-Bromophenyl phenyl ether	1.1	U	83.3	89.5		ug/L		107	70 - 130	5	20
Hexachlorobenzene	0.49	U	83.3	76.6		ug/L		92	70 - 130	6	20
Phenanthrene	0.68	U	83.3	84.3		ug/L		101	70 - 130	1	20
Anthracene	0.59	U	83.3	81.8		ug/L		98	70 - 130	4	20
Carbazole	0.89	U	83.3	76.1		ug/L		91	70 - 130	12	20
Di-n-butyl phthalate	1.3	J	83.3	77.3		ug/L		91	70 - 130	8	20
Fluoranthene	0.75	U	83.3	80.7		ug/L		97	70 - 130	4	20
Pyrene	0.86	U F2	83.3	65.7	F2	ug/L		79	70 - 130	21	20
Butyl benzyl phthalate	0.63	U	83.3	72.0		ug/L		86	70 - 130	18	20
Benzo[a]anthracene	0.57	U	83.3	79.3		ug/L		95	70 - 130	9	20
Chrysene	0.70	U	83.3	74.6		ug/L		89	70 - 130	18	20
Bis(2-ethylhexyl) phthalate	1.5	J	83.3	71.6		ug/L		84	70 - 130	14	20
Di-n-octyl phthalate	0.72	U	83.3	75.2		ug/L		90	70 - 130	12	20
Benzo[b]fluoranthene	0.46	U	83.3	79.6		ug/L		96	70 - 130	13	20
Benzo[k]fluoranthene	0.19	U	83.3	72.3		ug/L		87	70 - 130	15	20
Benzo[a]pyrene	0.17	U	83.3	78.9		ug/L		95	70 - 130	5	20
Indeno[1,2,3-cd]pyrene	0.22	U	83.3	80.9		ug/L		97	70 - 130	5	20
Dibenz(a,h)anthracene	0.094	U	83.3	81.7		ug/L		98	70 - 130	13	20
Benzo[g,h,i]perylene	0.78	U	83.3	75.6		ug/L		91	70 - 130	7	20
1,1'-Biphenyl	0.66	U	83.3	86.4		ug/L		104	70 - 130	7	20
Acetophenone	1.1	U	83.3	79.5		ug/L		95	70 - 130	8	20
Benzaldehyde	0.90	U	167	143		ug/L		86	20 - 160	2	20
Caprolactam	1.1	U	167	34.3		ug/L		21	20 - 160	17	20
Atrazine	0.80	U	167	156		ug/L		94	70 - 130	0	20
2,2'-oxybis[1-chloropropane]	0.97	U	83.3	83.7		ug/L		100	70 - 130	2	20
1,2,4,5-Tetrachlorobenzene	0.45	U	83.3	76.9		ug/L		92	70 - 130	6	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-118951-4 MSD
Matrix: Water
Analysis Batch: 387628

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA
Prep Batch: 386536

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,4,6-Tetrachlorophenol	0.72	U	83.3	77.5		ug/L		93	70 - 130	18	20
3,3'-Dichlorobenzidine	1.1	U	83.3	64.4		ug/L		77	70 - 130	11	20
Bis(2-chloroethoxy)methane	0.72	U	83.3	74.9		ug/L		90	70 - 130	7	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*86*		*30 - 130*
Phenol-d5 (Surr)	*27*		*15 - 110*
Terphenyl-d14 (Surr)	*74*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*92*		*15 - 110*
2-Fluorophenol (Surr)	*38*		*15 - 110*
2-Fluorobiphenyl	*87*		*30 - 130*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 460-386536/1-A
Matrix: Water
Analysis Batch: 387794

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386536

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/24/16 12:24	08/31/16 08:41	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/24/16 12:24	08/31/16 08:41	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/24/16 12:24	08/31/16 08:41	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/24/16 12:24	08/31/16 08:41	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/24/16 12:24	08/31/16 08:41	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		08/24/16 12:24	08/31/16 08:41	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/24/16 12:24	08/31/16 08:41	1
N-Nitrosodimethylamine	0.051	U	0.20	0.051	ug/L		08/24/16 12:24	08/31/16 08:41	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/24/16 12:24	08/31/16 08:41	1

Lab Sample ID: LCS 460-386536/4-A
Matrix: Water
Analysis Batch: 387794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386536

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.800	0.486	*	ug/L		61	70 - 130
Benzo[a]pyrene	0.800	0.510	*	ug/L		64	70 - 130
Benzo[b]fluoranthene	0.800	0.503	*	ug/L		63	70 - 130
Bis(2-chloroethyl)ether	0.800	0.924		ug/L		115	70 - 130
Dibenz(a,h)anthracene	0.800	0.528	*	ug/L		66	70 - 130
Hexachlorobenzene	0.800	0.416	*	ug/L		52	70 - 130
Indeno[1,2,3-cd]pyrene	0.800	0.494	*	ug/L		62	70 - 130
N-Nitrosodimethylamine	0.800	0.208		ug/L		26	20 - 160
Pentachlorophenol	1.60	0.426		ug/L		27	20 - 160

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-386623/1-A
Matrix: Water
Analysis Batch: 386701

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386623

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 07:38	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/24/16 19:43	08/25/16 07:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*91*		*30 - 150*	*08/24/16 19:43*	*08/25/16 07:38*	*1*
Tetrachloro-m-xylene	*94*		*30 - 150*	*08/24/16 19:43*	*08/25/16 07:38*	*1*
DCB Decachlorobiphenyl	*134*		*30 - 150*	*08/24/16 19:43*	*08/25/16 07:38*	*1*
DCB Decachlorobiphenyl	*139*		*30 - 150*	*08/24/16 19:43*	*08/25/16 07:38*	*1*

Lab Sample ID: LCS 460-386623/2-A
Matrix: Water
Analysis Batch: 386701

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386623

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	4.00	4.45		ug/L		111	40 - 140
PCB-1016	4.00	4.53		ug/L		113	40 - 140
PCB-1260	4.00	5.15		ug/L		129	40 - 140
PCB-1260	4.00	5.39		ug/L		135	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*90*		*30 - 150*
Tetrachloro-m-xylene	*93*		*30 - 150*
DCB Decachlorobiphenyl	*124*		*30 - 150*
DCB Decachlorobiphenyl	*121*		*30 - 150*

Lab Sample ID: 460-118951-4 MS
Matrix: Water
Analysis Batch: 386701

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA
Prep Batch: 386623

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.098	U	4.00	3.94		ug/L		99	40 - 140
PCB-1016	0.098	U	4.00	4.37		ug/L		109	40 - 140
PCB-1260	0.084	U	4.00	5.36		ug/L		134	40 - 140
PCB-1260	0.084	U F1	4.00	5.43		ug/L		136	40 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*87*		*30 - 150*
Tetrachloro-m-xylene	*87*		*30 - 150*
DCB Decachlorobiphenyl	*130*		*30 - 150*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 460-118951-4 MS
Matrix: Water
Analysis Batch: 386701

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA
Prep Batch: 386623

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl	*125*		*30 - 150*

Lab Sample ID: 460-118951-4 MSD
Matrix: Water
Analysis Batch: 386701

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA
Prep Batch: 386623

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	0.098	U	4.00	4.12		ug/L		103	40 - 140	4	20
PCB-1016	0.098	U	4.00	4.80		ug/L		120	40 - 140	9	20
PCB-1260	0.084	U	4.00	5.41		ug/L		135	40 - 140	1	20
PCB-1260	0.084	U F1	4.00	5.67	F1	ug/L		142	40 - 140	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	*89*		*30 - 150*
Tetrachloro-m-xylene	*93*		*30 - 150*
DCB Decachlorobiphenyl	*126*		*30 - 150*
DCB Decachlorobiphenyl	*125*		*30 - 150*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 460-386598/4
Matrix: Water
Analysis Batch: 386598

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			08/24/16 21:15	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/24/16 21:15	1

Lab Sample ID: LCS 460-386598/6
Matrix: Water
Analysis Batch: 386598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.283		mg/L		106	90 - 110
Chloride	1.50	1.563		mg/L		104	90 - 110
Fluoride	1.00	1.088		mg/L		109	90 - 110
Sulfate	7.50	7.823		mg/L		104	90 - 110

Lab Sample ID: LCSD 460-386598/7
Matrix: Water
Analysis Batch: 386598

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	5.004		mg/L		100	90 - 110	5	15
Chloride	1.50	1.451		mg/L		97	90 - 110	7	15
Fluoride	1.00	0.986		mg/L		99	90 - 110	10	15
Sulfate	7.50	7.244		mg/L		97	90 - 110	8	15

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 460-118951-4 MS
Matrix: Water
Analysis Batch: 386598

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide	0.081	U	5.00	5.028		mg/L		101	90 - 110		
Chloride	2.09		1.50	3.471		mg/L		92	90 - 110		
Fluoride	0.098		1.00	1.125		mg/L		103	90 - 110		
Sulfate	0.83		7.50	7.660		mg/L		91	90 - 110		

Lab Sample ID: 460-118951-4 MSD
Matrix: Water
Analysis Batch: 386598

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.081	U	5.00	5.033		mg/L		101	90 - 110	0	15
Chloride	2.09		1.50	3.454		mg/L		91	90 - 110	1	15
Fluoride	0.098		1.00	1.115		mg/L		102	90 - 110	1	15
Sulfate	0.83		7.50	7.682		mg/L		91	90 - 110	0	15

Lab Sample ID: 460-118951-4 DU
Matrix: Water
Analysis Batch: 386598

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	2.09		2.068		mg/L		1	15
Sulfate	0.83		0.838		mg/L		1	15

Lab Sample ID: MB 460-386769/3
Matrix: Water
Analysis Batch: 386769

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			08/25/16 11:15	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/25/16 11:15	1

Lab Sample ID: LCS 460-386769/5
Matrix: Water
Analysis Batch: 386769

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.375		mg/L		107	90 - 110
Chloride	1.50	1.571		mg/L		105	90 - 110
Fluoride	1.00	1.122	*	mg/L		112	90 - 110
Sulfate	7.50	7.920		mg/L		106	90 - 110

Lab Sample ID: LCSD 460-386769/6
Matrix: Water
Analysis Batch: 386769

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	4.980		mg/L		100	90 - 110	8	15
Chloride	1.50	1.475		mg/L		98	90 - 110	6	15
Fluoride	1.00	1.000		mg/L		100	90 - 110	11	15

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 460-386769/6
Matrix: Water
Analysis Batch: 386769

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate			7.50	7.539		mg/L		101	90 - 110	5	15

Lab Sample ID: 460-118951-6 MS
Matrix: Water
Analysis Batch: 386769

Client Sample ID: SR3-SEEP-2-081916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.16	U	10.0	9.662		mg/L		97	90 - 110
Chloride	2.21	D	3.00	5.051		mg/L		95	90 - 110
Fluoride	0.096	J D *	2.00	2.136		mg/L		102	90 - 110
Sulfate	1.57	D F1	15.0	14.86	F1	mg/L		89	90 - 110

Lab Sample ID: 460-118951-6 MSD
Matrix: Water
Analysis Batch: 386769

Client Sample ID: SR3-SEEP-2-081916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.16	U	10.0	9.785		mg/L		98	90 - 110	1	15
Chloride	2.21	D	3.00	5.013		mg/L		93	90 - 110	1	15
Fluoride	0.096	J D *	2.00	2.140		mg/L		102	90 - 110	0	15
Sulfate	1.57	D F1	15.0	15.12		mg/L		90	90 - 110	2	15

Lab Sample ID: 460-118951-6 DU
Matrix: Water
Analysis Batch: 386769

Client Sample ID: SR3-SEEP-2-081916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	2.21	D	2.298		mg/L		4	15
Sulfate	1.57	D F1	1.631		mg/L		4	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 460-387091/1-A
Matrix: Water
Analysis Batch: 387734

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387091

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.71	U	2.0	0.71	ug/L		08/26/16 21:49	08/30/16 19:03	2
Selenium	0.79	U	10.0	0.79	ug/L		08/26/16 21:49	08/30/16 19:03	2

Lab Sample ID: MB 460-387091/1-A ^2
Matrix: Water
Analysis Batch: 387394

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387091

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:15	2
Barium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:15	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/26/16 21:49	08/28/16 19:15	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/26/16 21:49	08/28/16 19:15	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-387091/1-A ^2
Matrix: Water
Analysis Batch: 387394

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387091

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:15	2
Chromium	1.5	U	4.0	1.5	ug/L		08/26/16 21:49	08/28/16 19:15	2
Copper	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:15	2
Manganese	3.0	U	8.0	3.0	ug/L		08/26/16 21:49	08/28/16 19:15	2
Nickel	1.6	U	4.0	1.6	ug/L		08/26/16 21:49	08/28/16 19:15	2
Lead	0.44	U	1.2	0.44	ug/L		08/26/16 21:49	08/28/16 19:15	2
Antimony	0.76	U	2.0	0.76	ug/L		08/26/16 21:49	08/28/16 19:15	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/26/16 21:49	08/28/16 19:15	2
Zinc	6.5	U	16.0	6.5	ug/L		08/26/16 21:49	08/28/16 19:15	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/26/16 21:49	08/28/16 19:15	2
Sodium	87.6	U	200	87.6	ug/L		08/26/16 21:49	08/28/16 19:15	2
Magnesium	68.4	U	200	68.4	ug/L		08/26/16 21:49	08/28/16 19:15	2
Potassium	74.8	U	200	74.8	ug/L		08/26/16 21:49	08/28/16 19:15	2
Calcium	69.5	U	200	69.5	ug/L		08/26/16 21:49	08/28/16 19:15	2
Iron	49.1	U	120	49.1	ug/L		08/26/16 21:49	08/28/16 19:15	2
Thallium	0.31	U	0.80	0.31	ug/L		08/26/16 21:49	08/28/16 19:15	2

Lab Sample ID: LCS 460-387091/2-A
Matrix: Water
Analysis Batch: 387734

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387091

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	52.50		ug/L		105	80 - 120
Selenium	50.0	50.74		ug/L		101	80 - 120

Lab Sample ID: LCS 460-387091/2-A ^2
Matrix: Water
Analysis Batch: 387394

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387091

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	26.88		ug/L		108	80 - 120
Barium	50.0	50.50		ug/L		101	80 - 120
Beryllium	25.0	23.64		ug/L		95	80 - 120
Cadmium	25.0	25.78		ug/L		103	80 - 120
Cobalt	25.0	25.90		ug/L		104	80 - 120
Chromium	50.0	51.95		ug/L		104	80 - 120
Copper	50.0	49.83		ug/L		100	80 - 120
Manganese	250	257.6		ug/L		103	80 - 120
Nickel	50.0	52.23		ug/L		104	80 - 120
Lead	25.0	25.55		ug/L		102	80 - 120
Antimony	25.0	25.58		ug/L		102	80 - 120
Vanadium	50.0	50.90		ug/L		102	80 - 120
Zinc	250	256.8		ug/L		103	80 - 120
Aluminum	2500	2493		ug/L		100	80 - 120
Sodium	2500	2579		ug/L		103	80 - 120
Magnesium	2500	2563		ug/L		103	80 - 120
Potassium	2500	2496		ug/L		100	80 - 120
Calcium	2500	2698		ug/L		108	80 - 120
Iron	2500	2556		ug/L		102	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-387091/2-A ^2
Matrix: Water
Analysis Batch: 387394

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387091

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Thallium			20.0	20.40		ug/L		102	80 - 120		

Lab Sample ID: 460-118951-4 MS
Matrix: Water
Analysis Batch: 387394

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA
Prep Batch: 387091

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Silver	1.5	U	25.0	27.94		ug/L		112	75 - 125		
Barium	116		50.0	163.8		ug/L		96	75 - 125		
Beryllium	0.29	U	25.0	23.32		ug/L		93	75 - 125		
Cadmium	0.72	U	25.0	26.32		ug/L		105	75 - 125		
Cobalt	1.5	U	25.0	26.70		ug/L		107	75 - 125		
Chromium	1.5	U	50.0	53.37		ug/L		107	75 - 125		
Copper	1.6	U	50.0	51.20		ug/L		102	75 - 125		
Manganese	577		250	825.2		ug/L		99	75 - 125		
Nickel	1.6	U	50.0	53.90		ug/L		108	75 - 125		
Lead	0.44	U	25.0	26.26		ug/L		105	75 - 125		
Antimony	0.76	U	25.0	26.77		ug/L		107	75 - 125		
Vanadium	1.4	U	50.0	52.12		ug/L		104	75 - 125		
Zinc	6.5	U	250	260.3		ug/L		104	75 - 125		
Aluminum	13.5	U	2500	2534		ug/L		101	75 - 125		
Sodium	4310		2500	6817		ug/L		100	75 - 125		
Magnesium	4780		2500	7249		ug/L		99	75 - 125		
Potassium	1910		2500	4359		ug/L		98	75 - 125		
Calcium	28700		2500	30340	4	ug/L		67	75 - 125		
Iron	1350		2500	3899		ug/L		102	75 - 125		
Thallium	0.31	U	20.0	21.15		ug/L		106	75 - 125		

Lab Sample ID: 460-118951-4 MS
Matrix: Water
Analysis Batch: 387734

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA
Prep Batch: 387091

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	0.71	U	50.0	51.60		ug/L		103	75 - 125		
Selenium	0.79	U	50.0	50.58		ug/L		101	75 - 125		

Lab Sample ID: 460-118951-4 DU
Matrix: Water
Analysis Batch: 387394

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA
Prep Batch: 387091

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Silver	1.5	U		1.5	U	ug/L				NC	20
Barium	116			120.4		ug/L				4	20
Beryllium	0.29	U		0.29	U	ug/L				NC	20
Cadmium	0.72	U		0.72	U	ug/L				NC	20
Cobalt	1.5	U		1.5	U	ug/L				NC	20
Chromium	1.5	U		1.5	U	ug/L				NC	20
Copper	1.6	U		1.6	U	ug/L				NC	20
Manganese	577			593.5		ug/L				3	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-118951-4 DU
Matrix: Water
Analysis Batch: 387394

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA
Prep Batch: 387091

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Nickel	1.6	U		1.6	U	ug/L				NC	20
Lead	0.44	U		0.44	U	ug/L				NC	20
Antimony	0.76	U		0.76	U	ug/L				NC	20
Vanadium	1.4	U		1.4	U	ug/L				NC	20
Zinc	6.5	U		6.5	U	ug/L				NC	20
Aluminum	13.5	U		13.5	U	ug/L				NC	20
Sodium	4310			4432		ug/L				3	20
Magnesium	4780			4930		ug/L				3	20
Potassium	1910			1979		ug/L				3	20
Calcium	28700			29350		ug/L				2	20
Iron	1350			1395		ug/L				3	20
Thallium	0.31	U		0.31	U	ug/L				NC	20

Lab Sample ID: 460-118951-4 DU
Matrix: Water
Analysis Batch: 387734

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA
Prep Batch: 387091

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Arsenic	0.71	U		0.71	U	ug/L				NC	20
Selenium	0.79	U		0.79	U	ug/L				NC	20

Lab Sample ID: MB 460-387306/1-A ^2
Matrix: Water
Analysis Batch: 387703

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387306

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/28/16 17:27	08/30/16 15:11	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/28/16 17:27	08/30/16 15:11	2
Barium	1.5	U	4.0	1.5	ug/L		08/28/16 17:27	08/30/16 15:11	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/28/16 17:27	08/30/16 15:11	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/28/16 17:27	08/30/16 15:11	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/28/16 17:27	08/30/16 15:11	2
Chromium	1.5	U	4.0	1.5	ug/L		08/28/16 17:27	08/30/16 15:11	2
Copper	1.6	U	4.0	1.6	ug/L		08/28/16 17:27	08/30/16 15:11	2
Manganese	3.0	U	8.0	3.0	ug/L		08/28/16 17:27	08/30/16 15:11	2
Nickel	1.6	U	4.0	1.6	ug/L		08/28/16 17:27	08/30/16 15:11	2
Lead	0.44	U	1.2	0.44	ug/L		08/28/16 17:27	08/30/16 15:11	2
Antimony	0.76	U	2.0	0.76	ug/L		08/28/16 17:27	08/30/16 15:11	2
Selenium	0.79	U	10.0	0.79	ug/L		08/28/16 17:27	08/30/16 15:11	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/28/16 17:27	08/30/16 15:11	2
Zinc	6.5	U	16.0	6.5	ug/L		08/28/16 17:27	08/30/16 15:11	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/28/16 17:27	08/30/16 15:11	2
Magnesium	68.4	U	200	68.4	ug/L		08/28/16 17:27	08/30/16 15:11	2
Potassium	74.8	U	200	74.8	ug/L		08/28/16 17:27	08/30/16 15:11	2
Calcium	69.5	U	200	69.5	ug/L		08/28/16 17:27	08/30/16 15:11	2
Iron	49.1	U	120	49.1	ug/L		08/28/16 17:27	08/30/16 15:11	2
Thallium	0.31	U	0.80	0.31	ug/L		08/28/16 17:27	08/30/16 15:11	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-387306/1-A ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387306

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.71	U	2.0	0.71	ug/L		08/28/16 17:27	09/01/16 20:13	2
Selenium	0.79	U	10.0	0.79	ug/L		08/28/16 17:27	09/01/16 20:13	2

Lab Sample ID: LCS 460-387306/2-A ^2
Matrix: Water
Analysis Batch: 387703

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387306

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	26.30		ug/L		105	80 - 120
Arsenic	50.0	42.79		ug/L		86	80 - 120
Barium	50.0	52.75		ug/L		105	80 - 120
Beryllium	25.0	24.12		ug/L		96	80 - 120
Cadmium	25.0	27.12		ug/L		108	80 - 120
Cobalt	25.0	25.99		ug/L		104	80 - 120
Chromium	50.0	52.51		ug/L		105	80 - 120
Copper	50.0	52.83		ug/L		106	80 - 120
Manganese	250	262.2		ug/L		105	80 - 120
Nickel	50.0	52.48		ug/L		105	80 - 120
Lead	25.0	27.54		ug/L		110	80 - 120
Antimony	25.0	26.60		ug/L		106	80 - 120
Selenium	50.0	45.24		ug/L		90	80 - 120
Vanadium	50.0	52.17		ug/L		104	80 - 120
Zinc	250	259.2		ug/L		104	80 - 120
Aluminum	2500	2607		ug/L		104	80 - 120
Magnesium	2500	2654		ug/L		106	80 - 120
Potassium	2500	2645		ug/L		106	80 - 120
Calcium	2500	2776		ug/L		111	80 - 120
Iron	2500	2431		ug/L		97	80 - 120
Thallium	20.0	20.74		ug/L		104	80 - 120

Lab Sample ID: LCS 460-387306/2-A ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387306

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	46.56		ug/L		93	80 - 120
Selenium	50.0	46.25		ug/L		92	80 - 120

Lab Sample ID: 460-119272-E-2-C MS ^2
Matrix: Water
Analysis Batch: 387703

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387306

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.5	U	25.0	22.32		ug/L		89	75 - 125
Barium	188		50.0	239.9		ug/L		104	75 - 125
Beryllium	0.29	U	25.0	24.53		ug/L		98	75 - 125
Cadmium	0.72	U	25.0	23.95		ug/L		96	75 - 125
Cobalt	16.5		25.0	39.35		ug/L		92	75 - 125
Chromium	1.5	U	50.0	49.83		ug/L		100	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119272-E-2-C MS ^2
Matrix: Water
Analysis Batch: 387703

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387306

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	15.9		50.0	59.63		ug/L		88	75 - 125
Manganese	17400		250	17970	4	ug/L		243	75 - 125
Nickel	59.9		50.0	104.0		ug/L		88	75 - 125
Lead	1.7		25.0	27.83		ug/L		105	75 - 125
Antimony	0.76	U	25.0	26.38		ug/L		106	75 - 125
Vanadium	1.4	U	50.0	51.02		ug/L		102	75 - 125
Zinc	102		250	318.8		ug/L		87	75 - 125
Aluminum	261		2500	2720		ug/L		98	75 - 125
Potassium	128000		2500	132300	4	ug/L		177	75 - 125
Calcium	586000		2500	593700	4	ug/L		316	75 - 125
Iron	305000		2500	313800	4	ug/L		347	75 - 125
Thallium	0.31	U	20.0	20.99		ug/L		105	75 - 125

Lab Sample ID: 460-119272-E-2-C MS ^20
Matrix: Water
Analysis Batch: 387703

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387306

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Magnesium	434000		2500	460100	4	ug/L		1060	75 - 125

Lab Sample ID: 460-119272-E-2-C MS ^20
Matrix: Water
Analysis Batch: 388143

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387306

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	7.1	U	50.0	53.64		ug/L		107	75 - 125
Selenium	7.9	U	50.0	50.58	J	ug/L		101	75 - 125
Sodium	3110000		2500	3253000	4	ug/L		5808	75 - 125

Lab Sample ID: 460-119272-E-2-B DU ^2
Matrix: Water
Analysis Batch: 387703

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 387306

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.5	U	1.5	U	ug/L		NC	20
Barium	188		188.9		ug/L		0.5	20
Beryllium	0.29	U	0.29	U	ug/L		NC	20
Cadmium	0.72	U	0.72	U	ug/L		NC	20
Cobalt	16.5		16.56		ug/L		0.6	20
Chromium	1.5	U	1.92	J	ug/L		NC	20
Copper	15.9		17.57		ug/L		10	20
Manganese	17400		17690		ug/L		2	20
Nickel	59.9		59.74		ug/L		0.3	20
Lead	1.7		1.66		ug/L		0.6	20
Antimony	0.76	U	0.76	U	ug/L		NC	20
Vanadium	1.4	U	1.4	U	ug/L		NC	20
Zinc	102		103.1		ug/L		0.9	20
Aluminum	261		266.0		ug/L		2	20
Potassium	128000		130200		ug/L		2	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119272-E-2-B DU ^2
Matrix: Water
Analysis Batch: 387703

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 387306

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	586000		596000		ug/L		2	20
Iron	305000		311000		ug/L		2	20
Thallium	0.31	U	0.31	U	ug/L		NC	20

Lab Sample ID: 460-119272-E-2-B DU ^20
Matrix: Water
Analysis Batch: 387703

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 387306

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Magnesium	434000		437800		ug/L		1	20

Lab Sample ID: 460-119272-E-2-B DU ^20
Matrix: Water
Analysis Batch: 388143

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 387306

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	7.1	U	7.1	U	ug/L		NC	20
Selenium	7.9	U	7.9	U	ug/L		NC	20
Sodium	3110000		3197000		ug/L		3	20

Lab Sample ID: MB 460-387370/1-A ^2
Matrix: Water
Analysis Batch: 388143

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/01/16 03:06	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 07:58	09/01/16 03:06	2
Barium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/01/16 03:06	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/01/16 03:06	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 07:58	09/01/16 03:06	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/01/16 03:06	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/01/16 03:06	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/01/16 03:06	2
Manganese	3.0	U	8.0	3.0	ug/L		08/29/16 07:58	09/01/16 03:06	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/01/16 03:06	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 07:58	09/01/16 03:06	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/01/16 03:06	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 07:58	09/01/16 03:06	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 07:58	09/01/16 03:06	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 07:58	09/01/16 03:06	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 07:58	09/01/16 03:06	2
Magnesium	68.4	U	200	68.4	ug/L		08/29/16 07:58	09/01/16 03:06	2
Potassium	74.8	U	200	74.8	ug/L		08/29/16 07:58	09/01/16 03:06	2
Calcium	69.5	U	200	69.5	ug/L		08/29/16 07:58	09/01/16 03:06	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 07:58	09/01/16 03:06	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/01/16 03:06	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-387370/1-A ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	87.6	U	200	87.6	ug/L		08/29/16 07:58	09/02/16 03:20	2

Lab Sample ID: LCS 460-387370/2-A ^2
Matrix: Water
Analysis Batch: 388143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	20.48		ug/L		82	80 - 120
Arsenic	50.0	49.27		ug/L		99	80 - 120
Barium	50.0	53.40		ug/L		107	80 - 120
Beryllium	25.0	26.02		ug/L		104	80 - 120
Cadmium	25.0	25.26		ug/L		101	80 - 120
Cobalt	25.0	25.34		ug/L		101	80 - 120
Chromium	50.0	52.61		ug/L		105	80 - 120
Copper	50.0	51.28		ug/L		103	80 - 120
Manganese	250	277.6		ug/L		111	80 - 120
Nickel	50.0	51.11		ug/L		102	80 - 120
Lead	25.0	26.94		ug/L		108	80 - 120
Antimony	25.0	26.17		ug/L		105	80 - 120
Selenium	50.0	49.06		ug/L		98	80 - 120
Vanadium	50.0	50.42		ug/L		101	80 - 120
Zinc	250	259.4		ug/L		104	80 - 120
Aluminum	2500	2548		ug/L		102	80 - 120
Magnesium	2500	2598		ug/L		104	80 - 120
Potassium	2500	2630		ug/L		105	80 - 120
Calcium	2500	2706		ug/L		108	80 - 120
Iron	2500	2584		ug/L		103	80 - 120
Thallium	20.0	20.08		ug/L		100	80 - 120

Lab Sample ID: LCS 460-387370/2-A ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	2500	2421		ug/L		97	80 - 120

Lab Sample ID: 460-119005-W-12-D MS ^2
Matrix: Water
Analysis Batch: 388143

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.5	U	25.0	19.77		ug/L		79	75 - 125
Arsenic	0.71	U	50.0	46.67		ug/L		93	75 - 125
Barium	126		50.0	173.8		ug/L		95	75 - 125
Beryllium	0.29	U	25.0	26.47		ug/L		106	75 - 125
Cadmium	0.72	U	25.0	25.33		ug/L		101	75 - 125
Cobalt	1.5	U	25.0	25.11		ug/L		100	75 - 125
Chromium	1.5	U	50.0	51.07		ug/L		102	75 - 125
Copper	1.6	U	50.0	49.86		ug/L		100	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119005-W-12-D MS ^2
Matrix: Water
Analysis Batch: 388143

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	260		250	521.3		ug/L		105	75 - 125
Nickel	1.6	J	50.0	49.95		ug/L		97	75 - 125
Lead	0.44	U	25.0	27.13		ug/L		109	75 - 125
Antimony	0.76	U	25.0	26.99		ug/L		108	75 - 125
Selenium	0.79	U	50.0	45.88		ug/L		92	75 - 125
Vanadium	1.4	U	50.0	50.41		ug/L		101	75 - 125
Zinc	6.5	U	250	251.5		ug/L		101	75 - 125
Aluminum	25.3	J	2500	2497		ug/L		99	75 - 125
Magnesium	6400		2500	8714		ug/L		93	75 - 125
Potassium	2860		2500	5384		ug/L		101	75 - 125
Calcium	45600		2500	47480	4	ug/L		74	75 - 125
Iron	49.1	U	2500	2529		ug/L		101	75 - 125
Thallium	0.31	U	20.0	20.35		ug/L		102	75 - 125

Lab Sample ID: 460-119005-W-12-D MS ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	140000		2500	139200	4	ug/L		-43	75 - 125

Lab Sample ID: 460-119005-W-12-C DU ^2
Matrix: Water
Analysis Batch: 388143

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.5	U	1.5	U	ug/L		NC	20
Arsenic	0.71	U	0.71	U	ug/L		NC	20
Barium	126		124.3		ug/L		2	20
Beryllium	0.29	U	0.29	U	ug/L		NC	20
Cadmium	0.72	U	0.72	U	ug/L		NC	20
Cobalt	1.5	U	1.5	U	ug/L		NC	20
Chromium	1.5	U	1.5	U	ug/L		NC	20
Copper	1.6	U	1.6	U	ug/L		NC	20
Manganese	260		259.7		ug/L		0.1	20
Nickel	1.6	J	1.6	U	ug/L		NC	20
Lead	0.44	U	0.44	U	ug/L		NC	20
Antimony	0.76	U	0.76	U	ug/L		NC	20
Selenium	0.79	U	0.79	U	ug/L		NC	20
Vanadium	1.4	U	1.4	U	ug/L		NC	20
Zinc	6.5	U	6.5	U	ug/L		NC	20
Aluminum	25.3	J	24.16	J	ug/L		4	20
Magnesium	6400		6310		ug/L		1	20
Potassium	2860		2844		ug/L		0.5	20
Calcium	45600		44980		ug/L		1	20
Iron	49.1	U	49.1	U	ug/L		NC	20
Thallium	0.31	U	0.31	U	ug/L		NC	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119005-W-12-C DU ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sodium	140000		139000		ug/L		0.9	20

Lab Sample ID: LCS 460-387460/2-A ^2
Matrix: Water
Analysis Batch: 388223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387460

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	10.0	8.82		ug/L		88	80 - 120
Arsenic	20.0	18.27		ug/L		91	80 - 120
Barium	20.0	19.39		ug/L		97	80 - 120
Beryllium	10.0	9.27		ug/L		93	80 - 120
Cadmium	10.0	9.34		ug/L		93	80 - 120
Cobalt	10.0	8.93		ug/L		89	80 - 120
Chromium	20.0	17.92		ug/L		90	80 - 120
Copper	20.0	17.88		ug/L		89	80 - 120
Manganese	100	93.00		ug/L		93	80 - 120
Nickel	20.0	17.82		ug/L		89	80 - 120
Lead	10.0	9.18		ug/L		92	80 - 120
Antimony	10.0	8.84		ug/L		88	80 - 120
Selenium	20.0	18.80		ug/L		94	80 - 120
Vanadium	20.0	17.66		ug/L		88	80 - 120
Zinc	100	91.80		ug/L		92	80 - 120
Aluminum	1000	951.4		ug/L		95	80 - 120
Sodium	1000	924.0		ug/L		92	80 - 120
Magnesium	1000	949.8		ug/L		95	80 - 120
Potassium	1000	943.4		ug/L		94	80 - 120
Calcium	1000	941.6		ug/L		94	80 - 120
Iron	1000	969.4		ug/L		97	80 - 120
Thallium	8.00	7.28		ug/L		91	80 - 120

Lab Sample ID: MB 460-387440/1-B
Matrix: Water
Analysis Batch: 388451

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 387460

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 14:47	09/02/16 14:35	2

Lab Sample ID: MB 460-387440/1-B ^2
Matrix: Water
Analysis Batch: 388223

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 387460

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:12	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 14:47	09/01/16 20:12	2
Barium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:12	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 14:47	09/01/16 20:12	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 14:47	09/01/16 20:12	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:12	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 14:47	09/01/16 20:12	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-387440/1-B ^2
Matrix: Water
Analysis Batch: 388223

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 387460

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 20:12	2
Manganese	3.0	U	8.0	3.0	ug/L		08/29/16 14:47	09/01/16 20:12	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 14:47	09/01/16 20:12	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 14:47	09/01/16 20:12	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 14:47	09/01/16 20:12	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 14:47	09/01/16 20:12	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 14:47	09/01/16 20:12	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 14:47	09/01/16 20:12	2
Sodium	87.6	U	200	87.6	ug/L		08/29/16 14:47	09/01/16 20:12	2
Magnesium	68.4	U	200	68.4	ug/L		08/29/16 14:47	09/01/16 20:12	2
Potassium	74.8	U	200	74.8	ug/L		08/29/16 14:47	09/01/16 20:12	2
Calcium	69.5	U	200	69.5	ug/L		08/29/16 14:47	09/01/16 20:12	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 14:47	09/01/16 20:12	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 14:47	09/01/16 20:12	2

Lab Sample ID: 460-118951-4 MS
Matrix: Water
Analysis Batch: 388223

Client Sample ID: SR3-Pond-081916
Prep Type: Dissolved
Prep Batch: 387460

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.5	U	10.0	9.79		ug/L		98	75 - 125
Arsenic	0.71	U	20.0	21.38		ug/L		107	75 - 125
Barium	94.1		20.0	115.9	4	ug/L		109	75 - 125
Beryllium	0.29	U	10.0	10.47		ug/L		105	75 - 125
Cadmium	0.72	U	10.0	10.66		ug/L		107	75 - 125
Cobalt	1.5	U	10.0	10.11		ug/L		101	75 - 125
Chromium	1.5	U	20.0	20.22		ug/L		101	75 - 125
Copper	1.6	U	20.0	20.30		ug/L		102	75 - 125
Manganese	4.1	J	100	109.1		ug/L		105	75 - 125
Nickel	1.6	U	20.0	20.70		ug/L		104	75 - 125
Lead	0.44	U	10.0	10.55		ug/L		105	75 - 125
Antimony	0.76	U	10.0	10.27		ug/L		103	75 - 125
Selenium	0.79	U	20.0	21.58		ug/L		108	75 - 125
Vanadium	1.4	U	20.0	20.26		ug/L		101	75 - 125
Zinc	6.5	U	100	108.4		ug/L		108	75 - 125
Aluminum	13.5	U	1000	1087		ug/L		109	75 - 125
Sodium	5970		1000	5042	4	ug/L		-93	75 - 125
Magnesium	4760		1000	5856	4	ug/L		110	75 - 125
Potassium	1880		1000	2904		ug/L		103	75 - 125
Calcium	29300		1000	30480	4	ug/L		122	75 - 125
Iron	49.1	U	1000	1104		ug/L		110	75 - 125
Thallium	0.31	U	8.00	8.61		ug/L		108	75 - 125

Lab Sample ID: 460-118951-4 DU
Matrix: Water
Analysis Batch: 388223

Client Sample ID: SR3-Pond-081916
Prep Type: Dissolved
Prep Batch: 387460

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.5	U	1.5	U	ug/L		NC	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-118951-4 DU
Matrix: Water
Analysis Batch: 388223

Client Sample ID: SR3-Pond-081916
Prep Type: Dissolved
Prep Batch: 387460

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.71	U	0.71	U	ug/L		NC	20
Barium	94.1		93.44		ug/L		0.7	20
Beryllium	0.29	U	0.29	U	ug/L		NC	20
Cadmium	0.72	U	0.72	U	ug/L		NC	20
Cobalt	1.5	U	1.5	U	ug/L		NC	20
Chromium	1.5	U	1.5	U	ug/L		NC	20
Copper	1.6	U	1.6	U	ug/L		NC	20
Manganese	4.1	J	3.73	J	ug/L		10	20
Nickel	1.6	U	1.6	U	ug/L		NC	20
Lead	0.44	U	0.44	U	ug/L		NC	20
Antimony	0.76	U	0.76	U	ug/L		NC	20
Selenium	0.79	U	0.79	U	ug/L		NC	20
Vanadium	1.4	U	1.4	U	ug/L		NC	20
Zinc	6.5	U	6.5	U	ug/L		NC	20
Aluminum	13.5	U	13.5	U	ug/L		NC	20
Sodium	5970		3876	F3	ug/L		43	20
Magnesium	4760		4684		ug/L		2	20
Potassium	1880		1822		ug/L		3	20
Calcium	29300		28820		ug/L		2	20
Iron	49.1	U	49.1	U	ug/L		NC	20
Thallium	0.31	U	0.31	U	ug/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-386757/1-A
Matrix: Water
Analysis Batch: 386813

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386757

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:16	08/25/16 14:45	1

Lab Sample ID: LCS 460-386757/2-A
Matrix: Water
Analysis Batch: 386813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386757

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.955		ug/L		96	80 - 120

Lab Sample ID: 460-118951-4 MS
Matrix: Water
Analysis Batch: 386813

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA
Prep Batch: 386757

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.14	U	1.00	0.983		ug/L		98	75 - 125

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 460-118951-4 DU
Matrix: Water
Analysis Batch: 386813

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA
Prep Batch: 386757

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Mercury	0.14	U		0.14	U	ug/L				NC	20

Lab Sample ID: MB 460-386760/1-A
Matrix: Water
Analysis Batch: 386813

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386760

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:22	08/25/16 15:40	1

Lab Sample ID: LCS 460-386760/2-A
Matrix: Water
Analysis Batch: 386813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386760

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			1.00	1.01		ug/L		101	80 - 120		

Lab Sample ID: 460-118951-11 MS
Matrix: Water
Analysis Batch: 386813

Client Sample ID: SW-PAB-04-081916
Prep Type: Total/NA
Prep Batch: 386760

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.14	U	1.00	1.03		ug/L		103	75 - 125		

Lab Sample ID: 460-118951-11 DU
Matrix: Water
Analysis Batch: 386813

Client Sample ID: SW-PAB-04-081916
Prep Type: Total/NA
Prep Batch: 386760

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Mercury	0.14	U		0.14	U	ug/L				NC	20

Lab Sample ID: LCS 460-387416/2-A
Matrix: Water
Analysis Batch: 387486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387416

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			1.00	0.958		ug/L		96	80 - 120		

Lab Sample ID: LCS 460-387639/2-A
Matrix: Water
Analysis Batch: 387711

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387639

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			1.00	0.899		ug/L		90	80 - 120		

Lab Sample ID: MB 460-387417/1-B
Matrix: Water
Analysis Batch: 387486

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 387416

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/29/16 12:23	08/29/16 15:45	1

Lab Sample ID: 460-118951-4 MS — **Client Sample ID: SR3-Pond-081916**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 387486 — **Prep Batch: 387416**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.14	U	1.00	1.01		ug/L		101	75 - 125

Lab Sample ID: 460-118951-4 DU — **Client Sample ID: SR3-Pond-081916**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 387486 — **Prep Batch: 387416**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.14	U	0.14	U	ug/L		NC	20

Lab Sample ID: MB 460-387480/1-B — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 387711 — **Prep Batch: 387639**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 15:36	1

Lab Sample ID: 460-118951-11 MS — **Client Sample ID: SW-PAB-04-081916**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 387711 — **Prep Batch: 387639**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.14	U	1.00	0.955		ug/L		95	75 - 125

Lab Sample ID: 460-118951-11 DU — **Client Sample ID: SW-PAB-04-081916**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 387711 — **Prep Batch: 387639**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.14	U	0.14	U	ug/L		NC	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 460-387410/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387726 — **Prep Batch: 387410**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		08/29/16 12:04	08/30/16 17:32	1

Lab Sample ID: HLCS 460-387410/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387726 — **Prep Batch: 387410**

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.200	0.182		mg/L		91	80 - 120

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: LLCS 460-387410/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387726 — **Prep Batch: 387410**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0944		mg/L		94	80 - 120

Lab Sample ID: 460-118951-4 MS — **Client Sample ID: SR3-Pond-081916**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387726 — **Prep Batch: 387410**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0020	J	0.200	0.174		mg/L		86	75 - 125

Lab Sample ID: 460-118951-4 MSD — **Client Sample ID: SR3-Pond-081916**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387726 — **Prep Batch: 387410**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0020	J	0.200	0.180		mg/L		89	75 - 125	3	20

Lab Sample ID: 460-118951-11 MS — **Client Sample ID: SW-PAB-04-081916**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387726 — **Prep Batch: 387410**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0020	U	0.200	0.173		mg/L		87	75 - 125

Lab Sample ID: 460-118951-11 MSD — **Client Sample ID: SW-PAB-04-081916**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 387726 — **Prep Batch: 387410**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0020	U	0.200	0.174		mg/L		87	75 - 125	1	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 460-388410/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 388410

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	mg/L			09/02/16 09:00	1

Lab Sample ID: LCSSRM 460-388410/21 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 388410

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	44.1	44.20		mg/L		100.2	90.5 - 107.9

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 460-118951-4 DU
Matrix: Water
Analysis Batch: 388410

Client Sample ID: SR3-Pond-081916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	92.5			92.46		mg/L				0	17
Alkalinity	92.5			92.46		mg/L				0	17

GC/MS VOA

Analysis Batch: 386348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	8260C	
460-118951-3	SW-PAB-00-081916	Total/NA	Water	8260C	
460-118951-4	SR3-Pond-081916	Total/NA	Water	8260C	
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	8260C	
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	8260C	
460-118951-7	SW-PAB-01-081916	Total/NA	Water	8260C	
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	8260C	
460-118951-10	SW-NOB-02-081916	Total/NA	Water	8260C	
460-118951-11	SW-PAB-04-081916	Total/NA	Water	8260C	
460-118951-12	SW-SP-01-081916	Total/NA	Water	8260C	
MB 460-386348/7	Method Blank	Total/NA	Water	8260C	
LCS 460-386348/3	Lab Control Sample	Total/NA	Water	8260C	
460-118951-4 MS	SR3-Pond-081916	Total/NA	Water	8260C	
460-118951-4 MSD	SR3-Pond-081916	Total/NA	Water	8260C	

Analysis Batch: 386590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-2	SW-11-081916	Total/NA	Water	8260C	
460-118951-9	SW-MRB-00-081916	Total/NA	Water	8260C	
460-118951-13	SW-03-081916	Total/NA	Water	8260C	
460-118951-14	SW-04-081916	Total/NA	Water	8260C	
460-118951-15	SW-MRB-03-081916	Total/NA	Water	8260C	
460-118951-16	SW-MRB-02-081916	Total/NA	Water	8260C	
460-118951-17	FB-03-081916	Total/NA	Water	8260C	
460-118951-18	TB-04-081916	Total/NA	Water	8260C	
MB 460-386590/7	Method Blank	Total/NA	Water	8260C	
LCS 460-386590/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-386590/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 386650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	8260C SIM	
460-118951-2	SW-11-081916	Total/NA	Water	8260C SIM	
460-118951-3	SW-PAB-00-081916	Total/NA	Water	8260C SIM	
460-118951-4	SR3-Pond-081916	Total/NA	Water	8260C SIM	
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	8260C SIM	
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	8260C SIM	
460-118951-7	SW-PAB-01-081916	Total/NA	Water	8260C SIM	
460-118951-9	SW-MRB-00-081916	Total/NA	Water	8260C SIM	
460-118951-10	SW-NOB-02-081916	Total/NA	Water	8260C SIM	
460-118951-11	SW-PAB-04-081916	Total/NA	Water	8260C SIM	
460-118951-12	SW-SP-01-081916	Total/NA	Water	8260C SIM	
460-118951-13	SW-03-081916	Total/NA	Water	8260C SIM	
460-118951-14	SW-04-081916	Total/NA	Water	8260C SIM	
460-118951-15	SW-MRB-03-081916	Total/NA	Water	8260C SIM	
460-118951-16	SW-MRB-02-081916	Total/NA	Water	8260C SIM	
460-118951-17	FB-03-081916	Total/NA	Water	8260C SIM	
460-118951-18	TB-04-081916	Total/NA	Water	8260C SIM	
MB 460-386650/7	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-386650/3	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 460-386650/4	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 386835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	8260C SIM	
MB 460-386835/7	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-386835/3	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 460-386835/4	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 387501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-387501/7	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-387501/3	Lab Control Sample	Total/NA	Water	8260C SIM	
460-118951-4 MS	SR3-Pond-081916	Total/NA	Water	8260C SIM	
460-118951-4 MSD	SR3-Pond-081916	Total/NA	Water	8260C SIM	

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Prep Batch: 386536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	3510C	
460-118951-2	SW-11-081916	Total/NA	Water	3510C	
460-118951-3	SW-PAB-00-081916	Total/NA	Water	3510C	
460-118951-4	SR3-Pond-081916	Total/NA	Water	3510C	
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	3510C	
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	3510C	
460-118951-7	SW-PAB-01-081916	Total/NA	Water	3510C	
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	3510C	
460-118951-9	SW-MRB-00-081916	Total/NA	Water	3510C	
460-118951-10	SW-NOB-02-081916	Total/NA	Water	3510C	
460-118951-11	SW-PAB-04-081916	Total/NA	Water	3510C	
460-118951-12	SW-SP-01-081916	Total/NA	Water	3510C	
460-118951-13	SW-03-081916	Total/NA	Water	3510C	
460-118951-14	SW-04-081916	Total/NA	Water	3510C	
460-118951-15	SW-MRB-03-081916	Total/NA	Water	3510C	
460-118951-16	SW-MRB-02-081916	Total/NA	Water	3510C	
460-118951-17	FB-03-081916	Total/NA	Water	3510C	
MB 460-386536/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-386536/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-386536/3-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-386536/4-A	Lab Control Sample	Total/NA	Water	3510C	
460-118951-4 MS	SR3-Pond-081916	Total/NA	Water	3510C	
460-118951-4 MSD	SR3-Pond-081916	Total/NA	Water	3510C	

Analysis Batch: 387628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	8270D	386536
460-118951-2	SW-11-081916	Total/NA	Water	8270D	386536
460-118951-3	SW-PAB-00-081916	Total/NA	Water	8270D	386536
460-118951-4	SR3-Pond-081916	Total/NA	Water	8270D	386536
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	8270D	386536
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	8270D	386536
460-118951-7	SW-PAB-01-081916	Total/NA	Water	8270D	386536
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	8270D	386536
460-118951-9	SW-MRB-00-081916	Total/NA	Water	8270D	386536
460-118951-10	SW-NOB-02-081916	Total/NA	Water	8270D	386536
460-118951-11	SW-PAB-04-081916	Total/NA	Water	8270D	386536

GC/MS Semi VOA (Continued)

Analysis Batch: 387628 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-12	SW-SP-01-081916	Total/NA	Water	8270D	386536
460-118951-13	SW-03-081916	Total/NA	Water	8270D	386536
460-118951-14	SW-04-081916	Total/NA	Water	8270D	386536
460-118951-15	SW-MRB-03-081916	Total/NA	Water	8270D	386536
460-118951-16	SW-MRB-02-081916	Total/NA	Water	8270D	386536
460-118951-17	FB-03-081916	Total/NA	Water	8270D	386536
MB 460-386536/1-A	Method Blank	Total/NA	Water	8270D	386536
LCS 460-386536/2-A	Lab Control Sample	Total/NA	Water	8270D	386536
LCS 460-386536/3-A	Lab Control Sample	Total/NA	Water	8270D	386536
460-118951-4 MS	SR3-Pond-081916	Total/NA	Water	8270D	386536
460-118951-4 MSD	SR3-Pond-081916	Total/NA	Water	8270D	386536

Analysis Batch: 387794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	8270D SIM	386536
460-118951-2	SW-11-081916	Total/NA	Water	8270D SIM	386536
460-118951-3	SW-PAB-00-081916	Total/NA	Water	8270D SIM	386536
460-118951-9	SW-MRB-00-081916	Total/NA	Water	8270D SIM	386536
460-118951-10	SW-NOB-02-081916	Total/NA	Water	8270D SIM	386536
460-118951-11	SW-PAB-04-081916	Total/NA	Water	8270D SIM	386536
460-118951-12	SW-SP-01-081916	Total/NA	Water	8270D SIM	386536
460-118951-13	SW-03-081916	Total/NA	Water	8270D SIM	386536
460-118951-14	SW-04-081916	Total/NA	Water	8270D SIM	386536
460-118951-15	SW-MRB-03-081916	Total/NA	Water	8270D SIM	386536
460-118951-16	SW-MRB-02-081916	Total/NA	Water	8270D SIM	386536
460-118951-17	FB-03-081916	Total/NA	Water	8270D SIM	386536
MB 460-386536/1-A	Method Blank	Total/NA	Water	8270D SIM	386536
LCS 460-386536/4-A	Lab Control Sample	Total/NA	Water	8270D SIM	386536

Analysis Batch: 387918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-4	SR3-Pond-081916	Total/NA	Water	8270D SIM	386536
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	8270D SIM	386536
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	8270D SIM	386536
460-118951-7	SW-PAB-01-081916	Total/NA	Water	8270D SIM	386536
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	8270D SIM	386536

GC Semi VOA

Prep Batch: 386623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	3510C	
460-118951-2	SW-11-081916	Total/NA	Water	3510C	
460-118951-3	SW-PAB-00-081916	Total/NA	Water	3510C	
460-118951-4	SR3-Pond-081916	Total/NA	Water	3510C	
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	3510C	
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	3510C	
460-118951-7	SW-PAB-01-081916	Total/NA	Water	3510C	
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	3510C	
460-118951-9	SW-MRB-00-081916	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 386623 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-10	SW-NOB-02-081916	Total/NA	Water	3510C	
460-118951-11	SW-PAB-04-081916	Total/NA	Water	3510C	
460-118951-12	SW-SP-01-081916	Total/NA	Water	3510C	
460-118951-13	SW-03-081916	Total/NA	Water	3510C	
460-118951-14	SW-04-081916	Total/NA	Water	3510C	
460-118951-15	SW-MRB-03-081916	Total/NA	Water	3510C	
460-118951-16	SW-MRB-02-081916	Total/NA	Water	3510C	
460-118951-17	FB-03-081916	Total/NA	Water	3510C	
MB 460-386623/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-386623/2-A	Lab Control Sample	Total/NA	Water	3510C	
460-118951-4 MS	SR3-Pond-081916	Total/NA	Water	3510C	
460-118951-4 MSD	SR3-Pond-081916	Total/NA	Water	3510C	

Analysis Batch: 386701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	8082A	386623
460-118951-2	SW-11-081916	Total/NA	Water	8082A	386623
460-118951-3	SW-PAB-00-081916	Total/NA	Water	8082A	386623
460-118951-4	SR3-Pond-081916	Total/NA	Water	8082A	386623
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	8082A	386623
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	8082A	386623
460-118951-7	SW-PAB-01-081916	Total/NA	Water	8082A	386623
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	8082A	386623
460-118951-9	SW-MRB-00-081916	Total/NA	Water	8082A	386623
460-118951-10	SW-NOB-02-081916	Total/NA	Water	8082A	386623
460-118951-11	SW-PAB-04-081916	Total/NA	Water	8082A	386623
460-118951-12	SW-SP-01-081916	Total/NA	Water	8082A	386623
460-118951-13	SW-03-081916	Total/NA	Water	8082A	386623
460-118951-14	SW-04-081916	Total/NA	Water	8082A	386623
460-118951-15	SW-MRB-03-081916	Total/NA	Water	8082A	386623
460-118951-16	SW-MRB-02-081916	Total/NA	Water	8082A	386623
460-118951-17	FB-03-081916	Total/NA	Water	8082A	386623
MB 460-386623/1-A	Method Blank	Total/NA	Water	8082A	386623
LCS 460-386623/2-A	Lab Control Sample	Total/NA	Water	8082A	386623
460-118951-4 MS	SR3-Pond-081916	Total/NA	Water	8082A	386623
460-118951-4 MSD	SR3-Pond-081916	Total/NA	Water	8082A	386623

HPLC/IC

Analysis Batch: 386598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	9056A	
460-118951-2	SW-11-081916	Total/NA	Water	9056A	
460-118951-3	SW-PAB-00-081916	Total/NA	Water	9056A	
460-118951-4	SR3-Pond-081916	Total/NA	Water	9056A	
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	9056A	
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	9056A	
460-118951-7	SW-PAB-01-081916	Total/NA	Water	9056A	
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	9056A	
460-118951-9	SW-MRB-00-081916	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 386598 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-10	SW-NOB-02-081916	Total/NA	Water	9056A	
460-118951-11	SW-PAB-04-081916	Total/NA	Water	9056A	
460-118951-12	SW-SP-01-081916	Total/NA	Water	9056A	
460-118951-13	SW-03-081916	Total/NA	Water	9056A	
460-118951-14	SW-04-081916	Total/NA	Water	9056A	
460-118951-15	SW-MRB-03-081916	Total/NA	Water	9056A	
460-118951-16	SW-MRB-02-081916	Total/NA	Water	9056A	
460-118951-17	FB-03-081916	Total/NA	Water	9056A	
MB 460-386598/4	Method Blank	Total/NA	Water	9056A	
LCS 460-386598/6	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-386598/7	Lab Control Sample Dup	Total/NA	Water	9056A	
460-118951-4 MS	SR3-Pond-081916	Total/NA	Water	9056A	
460-118951-4 MSD	SR3-Pond-081916	Total/NA	Water	9056A	
460-118951-4 DU	SR3-Pond-081916	Total/NA	Water	9056A	

Analysis Batch: 386769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1 - DL2	SC-1-081916	Total/NA	Water	9056A	
460-118951-5 - DL	SR3-SEEP-1-081916	Total/NA	Water	9056A	
460-118951-6 - DL	SR3-SEEP-2-081916	Total/NA	Water	9056A	
460-118951-7 - DL	SW-PAB-01-081916	Total/NA	Water	9056A	
460-118951-11 - DL	SW-PAB-04-081916	Total/NA	Water	9056A	
460-118951-12 - DL	SW-SP-01-081916	Total/NA	Water	9056A	
460-118951-13 - DL	SW-03-081916	Total/NA	Water	9056A	
460-118951-14 - DL	SW-04-081916	Total/NA	Water	9056A	
460-118951-15 - DL	SW-MRB-03-081916	Total/NA	Water	9056A	
MB 460-386769/3	Method Blank	Total/NA	Water	9056A	
LCS 460-386769/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-386769/6	Lab Control Sample Dup	Total/NA	Water	9056A	
460-118951-6 MS	SR3-SEEP-2-081916	Total/NA	Water	9056A	
460-118951-6 MSD	SR3-SEEP-2-081916	Total/NA	Water	9056A	
460-118951-6 DU	SR3-SEEP-2-081916	Total/NA	Water	9056A	

Metals

Prep Batch: 386757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	7470A	
460-118951-2	SW-11-081916	Total/NA	Water	7470A	
460-118951-3	SW-PAB-00-081916	Total/NA	Water	7470A	
460-118951-4	SR3-Pond-081916	Total/NA	Water	7470A	
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	7470A	
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	7470A	
460-118951-7	SW-PAB-01-081916	Total/NA	Water	7470A	
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	7470A	
460-118951-9	SW-MRB-00-081916	Total/NA	Water	7470A	
460-118951-10	SW-NOB-02-081916	Total/NA	Water	7470A	
MB 460-386757/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-386757/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-118951-4 MS	SR3-Pond-081916	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 386757 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-4 DU	SR3-Pond-081916	Total/NA	Water	7470A	

Prep Batch: 386760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-11	SW-PAB-04-081916	Total/NA	Water	7470A	
460-118951-12	SW-SP-01-081916	Total/NA	Water	7470A	
460-118951-13	SW-03-081916	Total/NA	Water	7470A	
460-118951-14	SW-04-081916	Total/NA	Water	7470A	
460-118951-15	SW-MRB-03-081916	Total/NA	Water	7470A	
460-118951-16	SW-MRB-02-081916	Total/NA	Water	7470A	
460-118951-17	FB-03-081916	Total/NA	Water	7470A	
MB 460-386760/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-386760/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-118951-11 MS	SW-PAB-04-081916	Total/NA	Water	7470A	
460-118951-11 DU	SW-PAB-04-081916	Total/NA	Water	7470A	

Analysis Batch: 386813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	7470A	386757
460-118951-2	SW-11-081916	Total/NA	Water	7470A	386757
460-118951-3	SW-PAB-00-081916	Total/NA	Water	7470A	386757
460-118951-4	SR3-Pond-081916	Total/NA	Water	7470A	386757
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	7470A	386757
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	7470A	386757
460-118951-7	SW-PAB-01-081916	Total/NA	Water	7470A	386757
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	7470A	386757
460-118951-9	SW-MRB-00-081916	Total/NA	Water	7470A	386757
460-118951-10	SW-NOB-02-081916	Total/NA	Water	7470A	386757
460-118951-11	SW-PAB-04-081916	Total/NA	Water	7470A	386760
460-118951-12	SW-SP-01-081916	Total/NA	Water	7470A	386760
460-118951-13	SW-03-081916	Total/NA	Water	7470A	386760
460-118951-14	SW-04-081916	Total/NA	Water	7470A	386760
460-118951-15	SW-MRB-03-081916	Total/NA	Water	7470A	386760
460-118951-16	SW-MRB-02-081916	Total/NA	Water	7470A	386760
460-118951-17	FB-03-081916	Total/NA	Water	7470A	386760
MB 460-386757/1-A	Method Blank	Total/NA	Water	7470A	386757
MB 460-386760/1-A	Method Blank	Total/NA	Water	7470A	386760
LCS 460-386757/2-A	Lab Control Sample	Total/NA	Water	7470A	386757
LCS 460-386760/2-A	Lab Control Sample	Total/NA	Water	7470A	386760
460-118951-4 MS	SR3-Pond-081916	Total/NA	Water	7470A	386757
460-118951-11 MS	SW-PAB-04-081916	Total/NA	Water	7470A	386760
460-118951-4 DU	SR3-Pond-081916	Total/NA	Water	7470A	386757
460-118951-11 DU	SW-PAB-04-081916	Total/NA	Water	7470A	386760

Prep Batch: 387091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-4	SR3-Pond-081916	Total/NA	Water	3010A	
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	3010A	
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	3010A	
460-118951-7	SW-PAB-01-081916	Total/NA	Water	3010A	
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	3010A	

Metals (Continued)

Prep Batch: 387091 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-9	SW-MRB-00-081916	Total/NA	Water	3010A	
460-118951-10	SW-NOB-02-081916	Total/NA	Water	3010A	
460-118951-11	SW-PAB-04-081916	Total/NA	Water	3010A	
460-118951-12	SW-SP-01-081916	Total/NA	Water	3010A	
460-118951-13	SW-03-081916	Total/NA	Water	3010A	
MB 460-387091/1-A	Method Blank	Total/NA	Water	3010A	
MB 460-387091/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-387091/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCS 460-387091/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-118951-4 MS	SR3-Pond-081916	Total/NA	Water	3010A	
460-118951-4 DU	SR3-Pond-081916	Total/NA	Water	3010A	

Prep Batch: 387306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	3010A	
460-118951-2	SW-11-081916	Total/NA	Water	3010A	
460-118951-3	SW-PAB-00-081916	Total/NA	Water	3010A	
460-118951-14	SW-04-081916	Total/NA	Water	3010A	
460-118951-15	SW-MRB-03-081916	Total/NA	Water	3010A	
MB 460-387306/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-387306/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-119272-E-2-C MS ^2	Matrix Spike	Total/NA	Water	3010A	
460-119272-E-2-C MS ^20	Matrix Spike	Total/NA	Water	3010A	
460-119272-E-2-B DU ^2	Duplicate	Total/NA	Water	3010A	
460-119272-E-2-B DU ^20	Duplicate	Total/NA	Water	3010A	

Prep Batch: 387370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-16	SW-MRB-02-081916	Total/NA	Water	3010A	
460-118951-17	FB-03-081916	Total/NA	Water	3010A	
MB 460-387370/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-387370/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-119005-W-12-D MS ^2	Matrix Spike	Total/NA	Water	3010A	
460-119005-W-12-C DU ^2	Duplicate	Total/NA	Water	3010A	

Analysis Batch: 387394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-4	SR3-Pond-081916	Total/NA	Water	6020A	387091
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	6020A	387091
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	6020A	387091
460-118951-7	SW-PAB-01-081916	Total/NA	Water	6020A	387091
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	6020A	387091
460-118951-9	SW-MRB-00-081916	Total/NA	Water	6020A	387091
460-118951-10	SW-NOB-02-081916	Total/NA	Water	6020A	387091
460-118951-11	SW-PAB-04-081916	Total/NA	Water	6020A	387091
460-118951-12	SW-SP-01-081916	Total/NA	Water	6020A	387091
460-118951-13	SW-03-081916	Total/NA	Water	6020A	387091
MB 460-387091/1-A ^2	Method Blank	Total/NA	Water	6020A	387091
LCS 460-387091/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387091
460-118951-4 MS	SR3-Pond-081916	Total/NA	Water	6020A	387091
460-118951-4 DU	SR3-Pond-081916	Total/NA	Water	6020A	387091

QC Association Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Prep Batch: 387416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Dissolved	Water	7470A	387417
460-118951-2	SW-11-081916	Dissolved	Water	7470A	387417
460-118951-3	SW-PAB-00-081916	Dissolved	Water	7470A	387417
460-118951-4	SR3-Pond-081916	Dissolved	Water	7470A	387417
460-118951-5	SR3-SEEP-1-081916	Dissolved	Water	7470A	387417
460-118951-6	SR3-SEEP-2-081916	Dissolved	Water	7470A	387417
460-118951-7	SW-PAB-01-081916	Dissolved	Water	7470A	387417
460-118951-8	SW-PAB-01A-081916	Dissolved	Water	7470A	387417
460-118951-9	SW-MRB-00-081916	Dissolved	Water	7470A	387417
460-118951-10	SW-NOB-02-081916	Dissolved	Water	7470A	387417
MB 460-387417/1-B	Method Blank	Dissolved	Water	7470A	387417
LCS 460-387416/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-118951-4 MS	SR3-Pond-081916	Dissolved	Water	7470A	387417
460-118951-4 DU	SR3-Pond-081916	Dissolved	Water	7470A	387417

Filtration Batch: 387417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Dissolved	Water	FILTRATION	
460-118951-2	SW-11-081916	Dissolved	Water	FILTRATION	
460-118951-3	SW-PAB-00-081916	Dissolved	Water	FILTRATION	
460-118951-4	SR3-Pond-081916	Dissolved	Water	FILTRATION	
460-118951-5	SR3-SEEP-1-081916	Dissolved	Water	FILTRATION	
460-118951-6	SR3-SEEP-2-081916	Dissolved	Water	FILTRATION	
460-118951-7	SW-PAB-01-081916	Dissolved	Water	FILTRATION	
460-118951-8	SW-PAB-01A-081916	Dissolved	Water	FILTRATION	
460-118951-9	SW-MRB-00-081916	Dissolved	Water	FILTRATION	
460-118951-10	SW-NOB-02-081916	Dissolved	Water	FILTRATION	
MB 460-387417/1-B	Method Blank	Dissolved	Water	FILTRATION	
460-118951-4 MS	SR3-Pond-081916	Dissolved	Water	FILTRATION	
460-118951-4 DU	SR3-Pond-081916	Dissolved	Water	FILTRATION	

Filtration Batch: 387440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Dissolved	Water	FILTRATION	
460-118951-2	SW-11-081916	Dissolved	Water	FILTRATION	
460-118951-3	SW-PAB-00-081916	Dissolved	Water	FILTRATION	
460-118951-4	SR3-Pond-081916	Dissolved	Water	FILTRATION	
460-118951-5	SR3-SEEP-1-081916	Dissolved	Water	FILTRATION	
460-118951-6	SR3-SEEP-2-081916	Dissolved	Water	FILTRATION	
460-118951-7	SW-PAB-01-081916	Dissolved	Water	FILTRATION	
460-118951-8	SW-PAB-01A-081916	Dissolved	Water	FILTRATION	
460-118951-9	SW-MRB-00-081916	Dissolved	Water	FILTRATION	
460-118951-10	SW-NOB-02-081916	Dissolved	Water	FILTRATION	
460-118951-11	SW-PAB-04-081916	Dissolved	Water	FILTRATION	
460-118951-12	SW-SP-01-081916	Dissolved	Water	FILTRATION	
460-118951-13	SW-03-081916	Dissolved	Water	FILTRATION	
460-118951-14	SW-04-081916	Dissolved	Water	FILTRATION	
460-118951-15	SW-MRB-03-081916	Dissolved	Water	FILTRATION	
460-118951-16	SW-MRB-02-081916	Dissolved	Water	FILTRATION	
460-118951-17	FB-03-081916	Dissolved	Water	FILTRATION	
MB 460-387440/1-B	Method Blank	Dissolved	Water	FILTRATION	
MB 460-387440/1-B ^2	Method Blank	Dissolved	Water	FILTRATION	
460-118951-4 MS	SR3-Pond-081916	Dissolved	Water	FILTRATION	

Metals (Continued)

Filtration Batch: 387440 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-4 DU	SR3-Pond-081916	Dissolved	Water	FILTRATION	

Prep Batch: 387460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Dissolved	Water	3010A	387440
460-118951-2	SW-11-081916	Dissolved	Water	3010A	387440
460-118951-3	SW-PAB-00-081916	Dissolved	Water	3010A	387440
460-118951-4	SR3-Pond-081916	Dissolved	Water	3010A	387440
460-118951-5	SR3-SEEP-1-081916	Dissolved	Water	3010A	387440
460-118951-6	SR3-SEEP-2-081916	Dissolved	Water	3010A	387440
460-118951-7	SW-PAB-01-081916	Dissolved	Water	3010A	387440
460-118951-8	SW-PAB-01A-081916	Dissolved	Water	3010A	387440
460-118951-9	SW-MRB-00-081916	Dissolved	Water	3010A	387440
460-118951-10	SW-NOB-02-081916	Dissolved	Water	3010A	387440
460-118951-11	SW-PAB-04-081916	Dissolved	Water	3010A	387440
460-118951-12	SW-SP-01-081916	Dissolved	Water	3010A	387440
460-118951-13	SW-03-081916	Dissolved	Water	3010A	387440
460-118951-14	SW-04-081916	Dissolved	Water	3010A	387440
460-118951-15	SW-MRB-03-081916	Dissolved	Water	3010A	387440
460-118951-16	SW-MRB-02-081916	Dissolved	Water	3010A	387440
460-118951-17	FB-03-081916	Dissolved	Water	3010A	387440
MB 460-387440/1-B	Method Blank	Dissolved	Water	3010A	387440
MB 460-387440/1-B ^2	Method Blank	Dissolved	Water	3010A	387440
LCS 460-387460/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-118951-4 MS	SR3-Pond-081916	Dissolved	Water	3010A	387440
460-118951-4 DU	SR3-Pond-081916	Dissolved	Water	3010A	387440

Filtration Batch: 387480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-11	SW-PAB-04-081916	Dissolved	Water	FILTRATION	
460-118951-12	SW-SP-01-081916	Dissolved	Water	FILTRATION	
460-118951-13	SW-03-081916	Dissolved	Water	FILTRATION	
460-118951-14	SW-04-081916	Dissolved	Water	FILTRATION	
460-118951-15	SW-MRB-03-081916	Dissolved	Water	FILTRATION	
460-118951-16	SW-MRB-02-081916	Dissolved	Water	FILTRATION	
460-118951-17	FB-03-081916	Dissolved	Water	FILTRATION	
MB 460-387480/1-B	Method Blank	Dissolved	Water	FILTRATION	
460-118951-11 MS	SW-PAB-04-081916	Dissolved	Water	FILTRATION	
460-118951-11 DU	SW-PAB-04-081916	Dissolved	Water	FILTRATION	

Analysis Batch: 387486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Dissolved	Water	7470A	387416
460-118951-2	SW-11-081916	Dissolved	Water	7470A	387416
460-118951-3	SW-PAB-00-081916	Dissolved	Water	7470A	387416
460-118951-4	SR3-Pond-081916	Dissolved	Water	7470A	387416
460-118951-5	SR3-SEEP-1-081916	Dissolved	Water	7470A	387416
460-118951-6	SR3-SEEP-2-081916	Dissolved	Water	7470A	387416
460-118951-7	SW-PAB-01-081916	Dissolved	Water	7470A	387416
460-118951-8	SW-PAB-01A-081916	Dissolved	Water	7470A	387416
460-118951-9	SW-MRB-00-081916	Dissolved	Water	7470A	387416

Metals (Continued)

Analysis Batch: 387486 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-10	SW-NOB-02-081916	Dissolved	Water	7470A	387416
MB 460-387417/1-B	Method Blank	Dissolved	Water	7470A	387416
LCS 460-387416/2-A	Lab Control Sample	Total/NA	Water	7470A	387416
460-118951-4 MS	SR3-Pond-081916	Dissolved	Water	7470A	387416
460-118951-4 DU	SR3-Pond-081916	Dissolved	Water	7470A	387416

Prep Batch: 387639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-11	SW-PAB-04-081916	Dissolved	Water	7470A	387480
460-118951-12	SW-SP-01-081916	Dissolved	Water	7470A	387480
460-118951-13	SW-03-081916	Dissolved	Water	7470A	387480
460-118951-14	SW-04-081916	Dissolved	Water	7470A	387480
460-118951-15	SW-MRB-03-081916	Dissolved	Water	7470A	387480
460-118951-16	SW-MRB-02-081916	Dissolved	Water	7470A	387480
460-118951-17	FB-03-081916	Dissolved	Water	7470A	387480
MB 460-387480/1-B	Method Blank	Dissolved	Water	7470A	387480
LCS 460-387639/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-118951-11 MS	SW-PAB-04-081916	Dissolved	Water	7470A	387480
460-118951-11 DU	SW-PAB-04-081916	Dissolved	Water	7470A	387480

Analysis Batch: 387703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-387306/1-A ^2	Method Blank	Total/NA	Water	6020A	387306
LCS 460-387306/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387306
460-119272-E-2-C MS ^2	Matrix Spike	Total/NA	Water	6020A	387306
460-119272-E-2-C MS ^20	Matrix Spike	Total/NA	Water	6020A	387306
460-119272-E-2-B DU ^2	Duplicate	Total/NA	Water	6020A	387306
460-119272-E-2-B DU ^20	Duplicate	Total/NA	Water	6020A	387306

Analysis Batch: 387711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-11	SW-PAB-04-081916	Dissolved	Water	7470A	387639
460-118951-12	SW-SP-01-081916	Dissolved	Water	7470A	387639
460-118951-13	SW-03-081916	Dissolved	Water	7470A	387639
460-118951-14	SW-04-081916	Dissolved	Water	7470A	387639
460-118951-15	SW-MRB-03-081916	Dissolved	Water	7470A	387639
460-118951-16	SW-MRB-02-081916	Dissolved	Water	7470A	387639
460-118951-17	FB-03-081916	Dissolved	Water	7470A	387639
MB 460-387480/1-B	Method Blank	Dissolved	Water	7470A	387639
LCS 460-387639/2-A	Lab Control Sample	Total/NA	Water	7470A	387639
460-118951-11 MS	SW-PAB-04-081916	Dissolved	Water	7470A	387639
460-118951-11 DU	SW-PAB-04-081916	Dissolved	Water	7470A	387639

Analysis Batch: 387734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-4	SR3-Pond-081916	Total/NA	Water	6020A	387091
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	6020A	387091
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	6020A	387091
460-118951-7	SW-PAB-01-081916	Total/NA	Water	6020A	387091
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	6020A	387091
460-118951-9	SW-MRB-00-081916	Total/NA	Water	6020A	387091

Metals (Continued)

Analysis Batch: 387734 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-10	SW-NOB-02-081916	Total/NA	Water	6020A	387091
460-118951-11	SW-PAB-04-081916	Total/NA	Water	6020A	387091
460-118951-12	SW-SP-01-081916	Total/NA	Water	6020A	387091
460-118951-13	SW-03-081916	Total/NA	Water	6020A	387091
MB 460-387091/1-A	Method Blank	Total/NA	Water	6020A	387091
LCS 460-387091/2-A	Lab Control Sample	Total/NA	Water	6020A	387091
460-118951-4 MS	SR3-Pond-081916	Total/NA	Water	6020A	387091
460-118951-4 DU	SR3-Pond-081916	Total/NA	Water	6020A	387091

Analysis Batch: 388143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	6020A	387306
460-118951-2	SW-11-081916	Total/NA	Water	6020A	387306
460-118951-3	SW-PAB-00-081916	Total/NA	Water	6020A	387306
460-118951-14	SW-04-081916	Total/NA	Water	6020A	387306
460-118951-15	SW-MRB-03-081916	Total/NA	Water	6020A	387306
460-118951-16	SW-MRB-02-081916	Total/NA	Water	6020A	387370
460-118951-17	FB-03-081916	Total/NA	Water	6020A	387370
MB 460-387370/1-A ^2	Method Blank	Total/NA	Water	6020A	387370
LCS 460-387370/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387370
460-119005-W-12-D MS ^2	Matrix Spike	Total/NA	Water	6020A	387370
460-119272-E-2-C MS ^20	Matrix Spike	Total/NA	Water	6020A	387306
460-119005-W-12-C DU ^2	Duplicate	Total/NA	Water	6020A	387370
460-119272-E-2-B DU ^20	Duplicate	Total/NA	Water	6020A	387306

Analysis Batch: 388223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Dissolved	Water	6020A	387460
460-118951-2	SW-11-081916	Dissolved	Water	6020A	387460
460-118951-3	SW-PAB-00-081916	Dissolved	Water	6020A	387460
460-118951-4	SR3-Pond-081916	Dissolved	Water	6020A	387460
460-118951-5	SR3-SEEP-1-081916	Dissolved	Water	6020A	387460
460-118951-6	SR3-SEEP-2-081916	Dissolved	Water	6020A	387460
460-118951-7	SW-PAB-01-081916	Dissolved	Water	6020A	387460
460-118951-8	SW-PAB-01A-081916	Dissolved	Water	6020A	387460
460-118951-9	SW-MRB-00-081916	Dissolved	Water	6020A	387460
460-118951-10	SW-NOB-02-081916	Dissolved	Water	6020A	387460
460-118951-11	SW-PAB-04-081916	Dissolved	Water	6020A	387460
460-118951-12	SW-SP-01-081916	Dissolved	Water	6020A	387460
460-118951-13	SW-03-081916	Dissolved	Water	6020A	387460
460-118951-14	SW-04-081916	Dissolved	Water	6020A	387460
460-118951-15	SW-MRB-03-081916	Dissolved	Water	6020A	387460
460-118951-16	SW-MRB-02-081916	Dissolved	Water	6020A	387460
460-118951-17	FB-03-081916	Dissolved	Water	6020A	387460
MB 460-387440/1-B ^2	Method Blank	Dissolved	Water	6020A	387460
LCS 460-387460/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387460
460-118951-4 MS	SR3-Pond-081916	Dissolved	Water	6020A	387460
460-118951-4 DU	SR3-Pond-081916	Dissolved	Water	6020A	387460

Metals (Continued)

Analysis Batch: 388293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	6020A	387306
460-118951-2	SW-11-081916	Total/NA	Water	6020A	387306
460-118951-3	SW-PAB-00-081916	Total/NA	Water	6020A	387306
460-118951-14	SW-04-081916	Total/NA	Water	6020A	387306
460-118951-15	SW-MRB-03-081916	Total/NA	Water	6020A	387306
460-118951-16	SW-MRB-02-081916	Total/NA	Water	6020A	387370
460-118951-17	FB-03-081916	Total/NA	Water	6020A	387370
MB 460-387306/1-A ^2	Method Blank	Total/NA	Water	6020A	387306
MB 460-387370/1-A ^2	Method Blank	Total/NA	Water	6020A	387370
LCS 460-387306/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387306
LCS 460-387370/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387370
460-119005-W-12-D MS ^2	Matrix Spike	Total/NA	Water	6020A	387370
460-119005-W-12-C DU ^2	Duplicate	Total/NA	Water	6020A	387370

Analysis Batch: 388451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-387440/1-B	Method Blank	Dissolved	Water	6020A	387460

General Chemistry

Prep Batch: 387410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	9012B	
460-118951-2	SW-11-081916	Total/NA	Water	9012B	
460-118951-3	SW-PAB-00-081916	Total/NA	Water	9012B	
460-118951-4	SR3-Pond-081916	Total/NA	Water	9012B	
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	9012B	
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	9012B	
460-118951-7	SW-PAB-01-081916	Total/NA	Water	9012B	
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	9012B	
460-118951-9	SW-MRB-00-081916	Total/NA	Water	9012B	
460-118951-10	SW-NOB-02-081916	Total/NA	Water	9012B	
460-118951-11	SW-PAB-04-081916	Total/NA	Water	9012B	
460-118951-12	SW-SP-01-081916	Total/NA	Water	9012B	
460-118951-13	SW-03-081916	Total/NA	Water	9012B	
460-118951-14	SW-04-081916	Total/NA	Water	9012B	
460-118951-15	SW-MRB-03-081916	Total/NA	Water	9012B	
460-118951-16	SW-MRB-02-081916	Total/NA	Water	9012B	
460-118951-17	FB-03-081916	Total/NA	Water	9012B	
MB 460-387410/1-A	Method Blank	Total/NA	Water	9012B	
HLCS 460-387410/3-A	Lab Control Sample	Total/NA	Water	9012B	
LLCS 460-387410/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-118951-4 MS	SR3-Pond-081916	Total/NA	Water	9012B	
460-118951-4 MSD	SR3-Pond-081916	Total/NA	Water	9012B	
460-118951-11 MS	SW-PAB-04-081916	Total/NA	Water	9012B	
460-118951-11 MSD	SW-PAB-04-081916	Total/NA	Water	9012B	

Analysis Batch: 387726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	9012B	387410

General Chemistry (Continued)

Analysis Batch: 387726 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-2	SW-11-081916	Total/NA	Water	9012B	387410
460-118951-3	SW-PAB-00-081916	Total/NA	Water	9012B	387410
460-118951-4	SR3-Pond-081916	Total/NA	Water	9012B	387410
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	9012B	387410
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	9012B	387410
460-118951-7	SW-PAB-01-081916	Total/NA	Water	9012B	387410
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	9012B	387410
460-118951-9	SW-MRB-00-081916	Total/NA	Water	9012B	387410
460-118951-10	SW-NOB-02-081916	Total/NA	Water	9012B	387410
460-118951-11	SW-PAB-04-081916	Total/NA	Water	9012B	387410
460-118951-12	SW-SP-01-081916	Total/NA	Water	9012B	387410
460-118951-13	SW-03-081916	Total/NA	Water	9012B	387410
460-118951-14	SW-04-081916	Total/NA	Water	9012B	387410
460-118951-15	SW-MRB-03-081916	Total/NA	Water	9012B	387410
460-118951-16	SW-MRB-02-081916	Total/NA	Water	9012B	387410
460-118951-17	FB-03-081916	Total/NA	Water	9012B	387410
MB 460-387410/1-A	Method Blank	Total/NA	Water	9012B	387410
HLCS 460-387410/3-A	Lab Control Sample	Total/NA	Water	9012B	387410
LLCS 460-387410/2-A	Lab Control Sample	Total/NA	Water	9012B	387410
460-118951-4 MS	SR3-Pond-081916	Total/NA	Water	9012B	387410
460-118951-4 MSD	SR3-Pond-081916	Total/NA	Water	9012B	387410
460-118951-11 MS	SW-PAB-04-081916	Total/NA	Water	9012B	387410
460-118951-11 MSD	SW-PAB-04-081916	Total/NA	Water	9012B	387410

Analysis Batch: 388410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-118951-1	SC-1-081916	Total/NA	Water	SM 2320B	
460-118951-2	SW-11-081916	Total/NA	Water	SM 2320B	
460-118951-3	SW-PAB-00-081916	Total/NA	Water	SM 2320B	
460-118951-4	SR3-Pond-081916	Total/NA	Water	SM 2320B	
460-118951-5	SR3-SEEP-1-081916	Total/NA	Water	SM 2320B	
460-118951-6	SR3-SEEP-2-081916	Total/NA	Water	SM 2320B	
460-118951-7	SW-PAB-01-081916	Total/NA	Water	SM 2320B	
460-118951-8	SW-PAB-01A-081916	Total/NA	Water	SM 2320B	
460-118951-9	SW-MRB-00-081916	Total/NA	Water	SM 2320B	
460-118951-10	SW-NOB-02-081916	Total/NA	Water	SM 2320B	
460-118951-11	SW-PAB-04-081916	Total/NA	Water	SM 2320B	
460-118951-12	SW-SP-01-081916	Total/NA	Water	SM 2320B	
460-118951-13	SW-03-081916	Total/NA	Water	SM 2320B	
460-118951-14	SW-04-081916	Total/NA	Water	SM 2320B	
460-118951-15	SW-MRB-03-081916	Total/NA	Water	SM 2320B	
460-118951-16	SW-MRB-02-081916	Total/NA	Water	SM 2320B	
460-118951-17	FB-03-081916	Total/NA	Water	SM 2320B	
MB 460-388410/1	Method Blank	Total/NA	Water	SM 2320B	
LCSSRM 460-388410/21	Lab Control Sample	Total/NA	Water	SM 2320B	
460-118951-4 DU	SR3-Pond-081916	Total/NA	Water	SM 2320B	

Client Sample ID: SC-1-081916

Lab Sample ID: 460-118951-1

Date Collected: 08/19/16 11:35

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386348	08/24/16 03:31	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 10:41	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 17:08	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 09:39	MMC	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 09:25	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/24/16 23:59	MJA	TAL EDI
Total/NA	Analysis	9056A	DL2	10	386769	08/25/16 16:43	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 13:59	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:47	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 20:46	MDC	TAL EDI
Total/NA	Prep	3010A			387306	08/28/16 17:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388143	09/01/16 04:56	VAD	TAL EDI
Total/NA	Prep	3010A			387306	08/28/16 17:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/01/16 21:40	VAD	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:19	RBS	TAL EDI
Total/NA	Prep	7470A			386757	08/25/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 15:19	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:37	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: SW-11-081916

Lab Sample ID: 460-118951-2

Date Collected: 08/19/16 08:25

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386590	08/25/16 02:48	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 11:07	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 17:28	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 10:08	MMC	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 09:43	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 00:18	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 13:59	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:47	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 20:51	MDC	TAL EDI

Client Sample ID: SW-11-081916

Lab Sample ID: 460-118951-2

Date Collected: 08/19/16 08:25

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			387306	08/28/16 17:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388143	09/01/16 05:13	VAD	TAL EDI
Total/NA	Prep	3010A			387306	08/28/16 17:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/01/16 21:51	VAD	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:21	RBS	TAL EDI
Total/NA	Prep	7470A			386757	08/25/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 15:21	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:38	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: SW-PAB-00-081916

Lab Sample ID: 460-118951-3

Date Collected: 08/19/16 07:55

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386348	08/24/16 03:58	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 11:32	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 17:48	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 10:37	MMC	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 10:01	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 00:36	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 13:59	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:47	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 20:57	MDC	TAL EDI
Total/NA	Prep	3010A			387306	08/28/16 17:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388143	09/01/16 05:37	VAD	TAL EDI
Total/NA	Prep	3010A			387306	08/28/16 17:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/01/16 21:57	VAD	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:23	RBS	TAL EDI
Total/NA	Prep	7470A			386757	08/25/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 15:26	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:39	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: SR3-Pond-081916

Lab Sample ID: 460-118951-4

Date Collected: 08/19/16 10:35

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386348	08/24/16 03:04	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 11:57	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 16:09	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387918	08/31/16 16:28	CAZ	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 08:13	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 00:54	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 13:59	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:47	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 20:34	MDC	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 19:31	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 19:28	PHP	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 15:53	RBS	TAL EDI
Total/NA	Prep	7470A			386757	08/25/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 14:49	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:35	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: SR3-SEEP-1-081916

Lab Sample ID: 460-118951-5

Date Collected: 08/19/16 11:40

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386348	08/24/16 04:25	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 14:02	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 18:07	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387918	08/31/16 16:57	CAZ	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 10:19	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 01:12	MJA	TAL EDI
Total/NA	Analysis	9056A	DL	5	386769	08/25/16 13:41	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 13:59	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:47	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 21:03	MDC	TAL EDI

Client Sample ID: SR3-SEEP-1-081916

Lab Sample ID: 460-118951-5

Date Collected: 08/19/16 11:40

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 21:18	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 20:22	PHP	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:24	RBS	TAL EDI
Total/NA	Prep	7470A			386757	08/25/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 15:28	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:43	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: SR3-SEEP-2-081916

Lab Sample ID: 460-118951-6

Date Collected: 08/19/16 12:10

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386348	08/24/16 04:52	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 14:27	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 18:27	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387918	08/31/16 17:26	CAZ	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 10:37	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 01:31	MJA	TAL EDI
Total/NA	Analysis	9056A	DL	2	386769	08/25/16 13:59	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 13:59	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:47	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 21:25	MDC	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 21:24	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 20:24	PHP	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:26	RBS	TAL EDI
Total/NA	Prep	7470A			386757	08/25/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 15:30	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:44	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: SW-PAB-01-081916

Lab Sample ID: 460-118951-7

Date Collected: 08/19/16 13:15

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386348	08/24/16 05:19	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 14:52	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 18:47	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387918	08/31/16 17:54	CAZ	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 10:55	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 01:49	MJA	TAL EDI
Total/NA	Analysis	9056A	DL	2	386769	08/25/16 14:17	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 13:59	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:47	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 21:31	MDC	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 21:29	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 20:27	PHP	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:32	RBS	TAL EDI
Total/NA	Prep	7470A			386757	08/25/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 15:32	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:45	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: SW-PAB-01A-081916

Lab Sample ID: 460-118951-8

Date Collected: 08/19/16 13:40

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386348	08/24/16 05:46	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386835	08/26/16 02:08	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 19:06	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387918	08/31/16 18:23	CAZ	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 11:13	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 03:57	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 13:59	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:47	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 21:36	MDC	TAL EDI

Client Sample ID: SW-PAB-01A-081916

Lab Sample ID: 460-118951-8

Date Collected: 08/19/16 13:40

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 21:35	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 20:32	PHP	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:34	RBS	TAL EDI
Total/NA	Prep	7470A			386757	08/25/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 15:34	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:46	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: SW-MRB-00-081916

Lab Sample ID: 460-118951-9

Date Collected: 08/19/16 13:05

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386590	08/25/16 03:15	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 15:43	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 22:25	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 13:32	MMC	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 11:31	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 04:15	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 13:59	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:47	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 21:42	MDC	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 21:41	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 20:42	PHP	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:36	RBS	TAL EDI
Total/NA	Prep	7470A			386757	08/25/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 15:36	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:47	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: SW-NOB-02-081916

Lab Sample ID: 460-118951-10

Date Collected: 08/19/16 10:25

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386348	08/24/16 06:13	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 16:08	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 19:48	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 14:01	MMC	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 11:49	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 04:33	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 13:59	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:47	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 21:47	MDC	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 21:46	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 20:45	PHP	TAL EDI
Dissolved	Prep	7470A			387416	08/29/16 12:23	RBS	TAL EDI
Dissolved	Filtration	FILTRATION			387417	08/29/16 12:34	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387486	08/29/16 16:38	RBS	TAL EDI
Total/NA	Prep	7470A			386757	08/25/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 15:38	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:48	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: SW-PAB-04-081916

Lab Sample ID: 460-118951-11

Date Collected: 08/19/16 10:40

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386348	08/24/16 06:40	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 16:33	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 20:08	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 14:31	MMC	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 12:07	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 04:51	MJA	TAL EDI
Total/NA	Analysis	9056A	DL	5	386769	08/25/16 14:36	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 13:59	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:47	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 21:53	MDC	TAL EDI

Client Sample ID: SW-PAB-04-081916

Lab Sample ID: 460-118951-11

Date Collected: 08/19/16 10:40

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 21:52	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 20:48	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 15:43	RBS	TAL EDI
Total/NA	Prep	7470A			386760	08/25/16 12:22	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 15:47	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:48	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: SW-SP-01-081916

Lab Sample ID: 460-118951-12

Date Collected: 08/19/16 11:05

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386348	08/24/16 07:07	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 16:58	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 20:27	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 15:00	MMC	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 12:25	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 05:10	MJA	TAL EDI
Total/NA	Analysis	9056A	DL	20	386769	08/25/16 14:54	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 13:59	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:47	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 21:59	MDC	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 21:58	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 20:50	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 15:51	RBS	TAL EDI
Total/NA	Prep	7470A			386760	08/25/16 12:22	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 15:54	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:51	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: SW-03-081916

Lab Sample ID: 460-118951-13

Date Collected: 08/19/16 12:40

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386590	08/25/16 03:42	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 17:23	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 20:47	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 15:29	MMC	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 12:43	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 05:28	MJA	TAL EDI
Total/NA	Analysis	9056A	DL	100	386769	08/25/16 15:12	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 13:59	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:47	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 22:04	MDC	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387734	08/30/16 22:03	PHP	TAL EDI
Total/NA	Prep	3010A			387091	08/26/16 21:49	EAE	TAL EDI
Total/NA	Analysis	6020A		2	387394	08/28/16 20:55	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 15:53	RBS	TAL EDI
Total/NA	Prep	7470A			386760	08/25/16 12:22	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 15:56	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:55	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: SW-04-081916

Lab Sample ID: 460-118951-14

Date Collected: 08/19/16 12:05

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386590	08/25/16 04:08	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 17:48	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 21:06	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 15:59	MMC	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 14:26	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 05:46	MJA	TAL EDI
Total/NA	Analysis	9056A	DL	100	386769	08/25/16 15:30	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 13:59	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:47	MDC	TAL EDI

Client Sample ID: SW-04-081916

Lab Sample ID: 460-118951-14

Date Collected: 08/19/16 12:05

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	6020A		2	388223	09/01/16 22:10	MDC	TAL EDI
Total/NA	Prep	3010A			387306	08/28/16 17:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388143	09/01/16 05:42	VAD	TAL EDI
Total/NA	Prep	3010A			387306	08/28/16 17:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/01/16 22:03	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 15:54	RBS	TAL EDI
Total/NA	Prep	7470A			386760	08/25/16 12:22	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 15:58	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:56	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: SW-MRB-03-081916

Lab Sample ID: 460-118951-15

Date Collected: 08/19/16 13:40

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386590	08/25/16 04:35	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 18:13	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 21:26	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 16:28	MMC	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 14:11	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 06:04	MJA	TAL EDI
Total/NA	Analysis	9056A	DL	20	386769	08/25/16 15:49	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 14:02	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:49	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 22:15	MDC	TAL EDI
Total/NA	Prep	3010A			387306	08/28/16 17:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388143	09/01/16 05:48	VAD	TAL EDI
Total/NA	Prep	3010A			387306	08/28/16 17:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/01/16 22:22	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 15:56	RBS	TAL EDI
Total/NA	Prep	7470A			386760	08/25/16 12:22	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 16:00	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:57	PXP	TAL EDI

Client Sample ID: SW-MRB-03-081916

Lab Sample ID: 460-118951-15

Date Collected: 08/19/16 13:40

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: SW-MRB-02-081916

Lab Sample ID: 460-118951-16

Date Collected: 08/19/16 13:55

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386590	08/25/16 05:02	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 18:38	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 21:45	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 16:58	MMC	TAL EDI
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 13:53	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 06:23	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 14:02	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:49	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 22:55	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388143	09/01/16 03:46	VAD	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 04:01	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 15:58	RBS	TAL EDI
Total/NA	Prep	7470A			386760	08/25/16 12:22	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 16:02	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:58	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: FB-03-081916

Lab Sample ID: 460-118951-17

Date Collected: 08/19/16 14:30

Matrix: Water

Date Received: 08/19/16 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386590	08/25/16 02:21	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 09:51	DAS	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D		1	387628	08/30/16 22:05	MMC	TAL EDI
Total/NA	Prep	3510C			386536	08/24/16 12:24	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	387794	08/31/16 17:28	MMC	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Client Sample ID: FB-03-081916

Date Collected: 08/19/16 14:30
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-17

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			386623	08/24/16 19:43	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386701	08/25/16 13:35	JHP	TAL EDI
Total/NA	Analysis	9056A		1	386598	08/25/16 06:41	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387440	08/29/16 14:02	MDC	TAL EDI
Dissolved	Prep	3010A			387460	08/29/16 14:49	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 23:00	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388143	09/01/16 03:58	VAD	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 04:13	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 16:04	RBS	TAL EDI
Total/NA	Prep	7470A			386760	08/25/16 12:22	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 16:08	RBS	TAL EDI
Total/NA	Prep	9012B			387410	08/29/16 12:04	MBE	TAL EDI
Total/NA	Analysis	9012B		1	387726	08/30/16 17:59	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388410	09/02/16 09:00	IAA	TAL EDI

Client Sample ID: TB-04-081916

Date Collected: 08/19/16 00:00
Date Received: 08/19/16 18:00

Lab Sample ID: 460-118951-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386590	08/25/16 01:54	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	386650	08/25/16 10:16	DAS	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Certification Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Laboratory: TestAmerica Edison

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New Jersey	NELAP	2	12028	06-30-17

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,4-Trichlorobenzene
8260C SIM		Water	1,2,3-Trichloropropane
8260C SIM		Water	1,2-Dibromo-3-Chloropropane
8260C SIM		Water	Ethylene Dibromide
8270D SIM	3510C	Water	Bis(2-chloroethyl)ether
9056A		Water	Chloride
9056A		Water	Sulfate

Method Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
9056A	Anions, Ion Chromatography	SW846	TAL EDI
6020A	Metals (ICP/MS)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
9012B	Cyanide, Total andor Amenable	SW846	TAL EDI
SM 2320B	Alkalinity	SM	TAL EDI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-118951-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-118951-1	SC-1-081916	Water	08/19/16 11:35	08/19/16 18:00
460-118951-2	SW-11-081916	Water	08/19/16 08:25	08/19/16 18:00
460-118951-3	SW-PAB-00-081916	Water	08/19/16 07:55	08/19/16 18:00
460-118951-4	SR3-Pond-081916	Water	08/19/16 10:35	08/19/16 18:00
460-118951-5	SR3-SEEP-1-081916	Water	08/19/16 11:40	08/19/16 18:00
460-118951-6	SR3-SEEP-2-081916	Water	08/19/16 12:10	08/19/16 18:00
460-118951-7	SW-PAB-01-081916	Water	08/19/16 13:15	08/19/16 18:00
460-118951-8	SW-PAB-01A-081916	Water	08/19/16 13:40	08/19/16 18:00
460-118951-9	SW-MRB-00-081916	Water	08/19/16 13:05	08/19/16 18:00
460-118951-10	SW-NOB-02-081916	Water	08/19/16 10:25	08/19/16 18:00
460-118951-11	SW-PAB-04-081916	Water	08/19/16 10:40	08/19/16 18:00
460-118951-12	SW-SP-01-081916	Water	08/19/16 11:05	08/19/16 18:00
460-118951-13	SW-03-081916	Water	08/19/16 12:40	08/19/16 18:00
460-118951-14	SW-04-081916	Water	08/19/16 12:05	08/19/16 18:00
460-118951-15	SW-MRB-03-081916	Water	08/19/16 13:40	08/19/16 18:00
460-118951-16	SW-MRB-02-081916	Water	08/19/16 13:55	08/19/16 18:00
460-118951-17	FB-03-081916	Water	08/19/16 14:30	08/19/16 18:00
460-118951-18	TB-04-081916	Water	08/19/16 00:00	08/19/16 18:00

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

460-118951 Chain of Custody

CHAIN OF _ _ ST

Page 1 of 2

Name (for report and invoice) Tim Roeper	Samplers Name (Printed) Robert Lawfordey	Site/Project Identification Ford - Ringwood
Company Cornerstone Environmental Group	P. O. # 140802-015	State (Location of site): NJ: X NY: Other:
		Regulatory Program: DKQP:
Address 100 Crystal Run Rd, Suite 101	Analysis Turnaround Time: Standard X	
City Middletown State NY 10941	Rush Charges Authorized For: 2 Week 1 Week Other	
Phone 845 695 0200 Fax		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + 15 TICs 8260 B	TCL SVOC + 15 TICs 8270 B	TAL Metals - Total & Filtered - 6010B/7000	PCB	Alkalinity, Total as $CaCO_3$ - 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide				Sample Numbers
SC-1-081916	8/19/16	11:35	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-1
SW-1-081916	8/19/16	08:25	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-2
SW-PAB-00-081916	8/19/16	07:55	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-3
SR3-Pond-081916	8/19/16	10:35	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-4
SR3-Pond-081916 MS	8/19/16	10:35	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-4
SR3-Pond-081916 MSD	8/19/16	10:35	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-4
SR3-SEEP-1-081916	8/19/16	11:40	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-5
SR3-SEEP-2-081916	8/19/16	12:10	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-6
SW-PAB-01-081916	8/19/16	13:15	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-7
SW-PAB-01A-081916	8/19/16	13:40	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-8
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH Soil:																
6 = Other _____, 7 = Other _____ Water:																

LAB USE ONLY
Project No:
Job No: 118951

Special Instructions Do not report 1,4 Dioxane for VOCs + SVOCs

Water Metals Filtered (Yes/No)? No

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/19/16 1515	1) Luisa Smith	TA
Relinquished by 2) Luisa Smith	Company TA	Date / Time 8/19/16 1800	Received by 2) Kelly Mundt	Company TA 8/19/16 1800
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578) NOCs #7 1.5, 1.2, 1.3, 1.0, 1.4, 1.2, 1.0

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
Tim Roepe	Robert Lostebery	Ford - Ringwood
Company: Cornerstone Environmental Group	P. O. # 140802-015	State (Location of site): NJ: X NY: Other:
		Regulatory Program: DKQP:
Address: 100 Crystal Run Rd. Suite 101	Analysis Turnaround Time: Standard X; Rush Charges Authorized For: 2 Week, 1 Week, Other	LAB USE ONLY Project No:
City: Middletown State: NY 10941		Lab No: 118951
Phone: 845-695-0200 Fax:		Sample Numbers

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOCs + 15 TICs 8260B	TCL SVOCs + 15 TICs 8270B	TAL Metals - Total & Filtered 6010B/7470A	PCBs	Alkalinity, Total as CaCO3 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	Sample Numbers
SW-MRB-00-081916	8/19/16	13:05	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-9
SW-NOB-02-081916	8/19/16	10:25	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-10
SW-PAB-04-081916	8/19/16	10:40	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-11
SW-SP-01-081916	8/19/16	11:05	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-12
SW-03-081916	8/19/16	12:40	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-13
SW-04-081916	8/19/16	12:05	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-14
SW-MRB-03-081916	8/19/16	13:40	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-15
SW-MRB-02-081916	8/19/16	13:55	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-16
FB-03-081916	8/19/16	14:30	BW	13	✓	✓	✓	✓	✓	✓	✓	✓	-17
TB-04-081916	8/19/16	—	BW	4	✓								-18

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____ Soil: Water:

Special Instructions Do not report 1,4 Dioxane for VOCs + SVOCs Water Metals Filtered (Yes/No)? No

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/19/16 1515	1) Tiusha Amin	TA
Relinquished by 2) Tiusha Amin	Company TA	Date / Time 8/19/16 1800	Received by 2) Kelly Hunt	Company TA 8/19/16 1800
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132), Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0715)

Job Number: 118951

TestAmerica Edison
Receipt Temperature and pH Log

Page ____ of ____

Number of Coolers: 7 IR Gun # 7

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	1.5 °C	1.5 °C	Cooler #4:	1.0 °C	1.0 °C	Cooler #7:	1.0 °C	1.0 °C
Cooler #2:	1.2 °C	1.2 °C	Cooler #5:	1.4 °C	1.4 °C	Cooler #8:	°C	°C
Cooler #3:	1.3 °C	1.3 °C	Cooler #6:	1.2 °C	1.2 °C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
1				<2								>12			
2				<2								>12			
3				<2								>12			
4				<2								>12			
4DUP/MSD				<2								>12			
4MS				<2								>12			
5				<2								>12			
6				<2								>12			
7				<2								>12			
8				<2								>12			
9				<2								>12			
10				<2								>12			
11				<2								>12			

If pH adjustments are required record the information below:

Sample No(s). adjusted: NA

Preservative Name/Conc.: NA Volume of Preservative used (ml): NA

Lot # of Preservative(s): NA Expiration Date: NA

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: LS Date: 8/19/16

EDS-WI-038, Rev 4, 06/09/2014

Job Number: 118951

TestAmerica Edison
Receipt Temperature and pH Log

Page ____ of ____

Number of Coolers: 7 IR Gun #: 7

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	1.5 °C	°C	Cooler #4:	1.0 °C	°C	Cooler #7:	1.0 °C	°C
Cooler #2:	1.1 °C	°C	Cooler #5:	1.4 °C	°C	Cooler #8:	°C	°C
Cooler #3:	1.3 °C	°C	Cooler #6:	1.2 °C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
12				<2								>12			
13				<2								>12			
14				<2								>12			
15				<2								>12			
16				<2								>12			
17				<2								>12			

If pH adjustments are required record the information below:

Sample No(s). adjusted: NA

Preservative Name/Conc.: NA Volume of Preservative used (ml): NA

Lot # of Preservative(s): NA Expiration Date: NA

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: [illegible] Date: 8/19/16

Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 460-118951-1

Login Number: 118951
List Number: 1
Creator: Rivera, Kenneth

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5°C, 1.2°C, 1.3°C, 1°C, 1.4°C, 1.2°C, 1°C, IR #7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-119025-1
Client Project/Site: FORD Ringwood Mines E203361

For:
Cornerstone Environmental Group, LLC
100 Crystal Run Road
Suite 101
Middletown, New York 10941

Attn: Tim Roeper

Authorized for release by:
9/7/2016 4:58:28 PM
Kristin DeGraw, Project Manager II
(732)593-2555
kristin.degraw@testamericainc.com

Designee for

Marie Meidhof, Project Manager II
(732)549-3900
marie.meidhof@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	RPD of the LCS and LCSD exceeds the control limits
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
F1	MS and/or MSD Recovery is outside acceptance limits.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: TestAmerica Edison

Client: Cornerstone Environmental Group, LLC

Project Location: FORD Ringwood Mines E203361

Project Number: 460-119025-1

Laboratory Sample ID(s): 460-119025-1, 460-119025-2, 460-119025-3, 460-119025-4, 460-119025-5, 460-119025-6, 460-119025-7, 460-119025-8, 460-119025-9, 460-119025-10, 460-119025-11, 460-119025-12, 460-119025-13, 460-119025-14, 460-119025-15, 460-119025-16

Sampling Date(s): 08/22/2016, 08/23/2016

List DKQP Methods Used: 8260C, 8260C SIM, 8270D, 8270D SIM, 8082A, 6020A, 7470A, 9012B

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	☑Yes ☐No
1A	Were the method specified handling, preservation, and holding time requirements met?	☐Yes ☐No ☑ See case narrative
1B	*EPH Method:* Was the EPH method conducted without significant modifications? (see Section 11.3 of respective DKQ methods)	☐Yes ☐No ☑N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody documents(s)?	☐Yes ☐No ☑ See case narrative
3	Were samples received at an appropriate temperature (4±2° C)?	☑Yes ☐No ☐N/A
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	☐Yes ☑No
5	a) Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	☐Yes ☐No ☑ See case narrative
	b) Were these reporting limits met?	☐Yes ☐No ☐N/A ☑ See case narrative
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	☑Yes ☐No
7	Are project-specific matrix spike and/or laboratory duplicates included in this data set?	☐Yes ☑No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information should be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet requirements for "Data of Known Quality."

Job ID: 460-119025-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: Cornerstone Environmental Group, LLC

Project: FORD Ringwood Mines E203361

Report Number: 460-119025-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 8/23/2016 11:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 0.4º C, 0.6º C, 0.6º C, 0.7º C and 0.9º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC-MS) DKQP

Samples PMP-Pond-082216 (460-119025-1), Dup-03-082216 (460-119025-2), SW-PAB-02-082216 (460-119025-3), SW-PAB-03-082216 (460-119025-4), SW-PMB-02-082216 (460-119025-5), SW-MRB-01-082216 (460-119025-6), SW-NOB-01-082216 (460-119025-7), RW-12(55-65)-082216 (460-119025-8), RW-2(452-462)-082216 (460-119025-9), RW-2(279-289)-082216 (460-119025-10), CMP-160-082216 (460-119025-11), CMP-100-082216 (460-119025-12), CMP-275-082216 (460-119025-13), CMP-50-082216 (460-119025-14), TB-05-082216 (460-119025-15) and SW-PMB-01-082316 (460-119025-16) were analyzed for Volatile organic compounds DKQP Aqueous in accordance with EPA SW-846 Methods 8260C DKQP. The samples were analyzed on 08/25/2016.

The continuing calibration verification (CCV) analyzed in batch 460-386589 was outside the method criteria for the following analyte: Bromoform. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

No other difficulties were encountered during the Volatile organic compounds DKQP Aqueous analysis.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS) DKQP - SELECTED ION MODE (SIM)

Samples PMP-Pond-082216 (460-119025-1), Dup-03-082216 (460-119025-2), SW-PAB-02-082216 (460-119025-3), SW-PAB-03-082216 (460-119025-4), SW-PMB-02-082216 (460-119025-5), SW-MRB-01-082216 (460-119025-6), SW-NOB-01-082216 (460-119025-7), RW-12(55-65)-082216 (460-119025-8), RW-2(452-462)-082216 (460-119025-9), RW-2(279-289)-082216 (460-119025-10), CMP-160-082216 (460-119025-11), CMP-100-082216 (460-119025-12), CMP-275-082216 (460-119025-13), CMP-50-082216 (460-119025-14), TB-05-082216 (460-119025-15) and SW-PMB-01-082316 (460-119025-16) were analyzed for volatile organic

Job ID: 460-119025-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

compounds (GC-MS) DKQP in accordance with EPA SW-846 Method 8260C SIM DKQP. The samples were analyzed on 08/26/2016 and 08/27/2016.

No difficulties were encountered during the volatile organic compounds (GC-MS) DKQP analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) DKQP

Samples PMP-Pond-082216 (460-119025-1), Dup-03-082216 (460-119025-2), SW-PAB-02-082216 (460-119025-3), SW-PAB-03-082216 (460-119025-4), SW-PMB-02-082216 (460-119025-5), SW-MRB-01-082216 (460-119025-6), SW-NOB-01-082216 (460-119025-7), RW-12(55-65)-082216 (460-119025-8), RW-2(452-462)-082216 (460-119025-9), RW-2(279-289)-082216 (460-119025-10), CMP-160-082216 (460-119025-11), CMP-100-082216 (460-119025-12), CMP-275-082216 (460-119025-13), CMP-50-082216 (460-119025-14) and SW-PMB-01-082316 (460-119025-16) were analyzed for Semivolatile organic compounds (GC/MS) DKQP in accordance with EPA SW-846 Method 8270D DKQP. The samples were prepared on 08/27/2016 and analyzed on 08/31/2016 and 09/01/2016.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch preparation batch 460-387194 and analytical batch 460-387913 recovered outside control limits for 2-Methylphenol and Caprolactam. This analyte was outside DKQP limits, but within the house limits; therefore, the data have been reported. 2-Methylphenol failed the recovery criteria low for LCS 460-387194/2-A. Caprolactam failed the recovery criteria low for LCS 460-387194/4-A. 2-Methylphenol failed the recovery criteria low for LCSD 460-387194/3-A. Caprolactam failed the recovery criteria low for LCSD 460-387194/5-A.

The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 460-387194 recovered outside control limits for the following analyte: 2,4,6-Trichlorophenol.

Di-n-butyl phthalate was detected in method blank MB 460-387194/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) DKQP - SELECTED ION MODE (SIM)

Samples PMP-Pond-082216 (460-119025-1), Dup-03-082216 (460-119025-2), SW-PAB-02-082216 (460-119025-3), SW-PAB-03-082216 (460-119025-4), SW-PMB-02-082216 (460-119025-5), SW-MRB-01-082216 (460-119025-6), SW-NOB-01-082216 (460-119025-7), RW-12(55-65)-082216 (460-119025-8), RW-2(452-462)-082216 (460-119025-9), RW-2(279-289)-082216 (460-119025-10), CMP-160-082216 (460-119025-11), CMP-100-082216 (460-119025-12), CMP-275-082216 (460-119025-13), CMP-50-082216 (460-119025-14) and SW-PMB-01-082316 (460-119025-16) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) in accordance with EPA Method 8270C SIM DKQP. The samples were prepared on 08/27/2016 and analyzed on 08/31/2016 and 09/01/2016.

No difficulties were encountered during the semivolatile organic compounds - Selected Ion Mode (SIM) analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS) DKQP

Samples PMP-Pond-082216 (460-119025-1), Dup-03-082216 (460-119025-2), SW-PAB-02-082216 (460-119025-3), SW-PAB-03-082216 (460-119025-4), SW-PMB-02-082216 (460-119025-5), SW-MRB-01-082216 (460-119025-6), SW-NOB-01-082216 (460-119025-7), RW-12(55-65)-082216 (460-119025-8), RW-2(452-462)-082216 (460-119025-9), RW-2(279-289)-082216 (460-119025-10), CMP-160-082216 (460-119025-11), CMP-100-082216 (460-119025-12), CMP-275-082216 (460-119025-13), CMP-50-082216 (460-119025-14) and SW-PMB-01-082316 (460-119025-16) were analyzed for polychlorinated biphenyls (PCBs) DKQP in accordance with EPA SW-846 Method 8082A DKQP. The samples were prepared on 08/25/2016 and analyzed on 08/26/2016.

Job ID: 460-119025-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch 386469 recovered outside control limits for the following analytes: PCB-1260. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

PCB-1260 failed the recovery criteria high for LCS 460-386833/2-A. PCB-1260 failed the recovery criteria high for LCSD 460-386833/3-A. Refer to the QC report for details.

The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: Dup-03-082216 (460-119025-2) and SW-PAB-02-082216 (460-119025-3). The reagent lot number used was: SLBC3181V.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

METALS DKQP

Samples PMP-Pond-082216 (460-119025-1), Dup-03-082216 (460-119025-2), SW-PAB-02-082216 (460-119025-3), SW-PAB-03-082216 (460-119025-4), SW-PMB-02-082216 (460-119025-5), SW-MRB-01-082216 (460-119025-6), SW-NOB-01-082216 (460-119025-7), RW-12(55-65)-082216 (460-119025-8), RW-2(452-462)-082216 (460-119025-9), RW-2(279-289)-082216 (460-119025-10), CMP-160-082216 (460-119025-11), CMP-100-082216 (460-119025-12), CMP-275-082216 (460-119025-13), CMP-50-082216 (460-119025-14) and SW-PMB-01-082316 (460-119025-16) were analyzed for Metals in accordance with EPA SW-846 Method 6020A DKQP. The samples were prepared on 08/29/2016 and analyzed on 09/02/2016 and 09/07/2016.

Calcium and Sodium failed the recovery criteria low for the MS of sample 460-119005-12 in batch 460-388293.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

Samples CMP-160-082216 (460-119025-11)[5X] and CMP-275-082216 (460-119025-13)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

METALS DKQP - DISSOLVED

Samples PMP-Pond-082216 (460-119025-1), Dup-03-082216 (460-119025-2), SW-PAB-02-082216 (460-119025-3), SW-PAB-03-082216 (460-119025-4), SW-PMB-02-082216 (460-119025-5), SW-MRB-01-082216 (460-119025-6), SW-NOB-01-082216 (460-119025-7), RW-12(55-65)-082216 (460-119025-8), RW-2(452-462)-082216 (460-119025-9), RW-2(279-289)-082216 (460-119025-10), CMP-160-082216 (460-119025-11), CMP-100-082216 (460-119025-12), CMP-275-082216 (460-119025-13), CMP-50-082216 (460-119025-14) and SW-PMB-01-082316 (460-119025-16) were analyzed for Metals DKQP in accordance with EPA SW-846 Method 6020A DKQP. The samples were prepared on 08/30/2016 and analyzed on 08/30/2016 and 09/01/2016.

Calcium and Sodium failed the recovery criteria low for the MS of sample RW-12(55-65)-082216MS (460-119025-8) in batch 460-388223.

Refer to the QC report for details.

No other difficulties were encountered during the Metals DKQP analysis.

All other quality control parameters were within the acceptance limits.

MERCURY DKQP

Samples PMP-Pond-082216 (460-119025-1), Dup-03-082216 (460-119025-2), SW-PAB-02-082216 (460-119025-3), SW-PAB-03-082216

Job ID: 460-119025-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

(460-119025-4), SW-PMB-02-082216 (460-119025-5), SW-MRB-01-082216 (460-119025-6), SW-NOB-01-082216 (460-119025-7), RW-12(55-65)-082216 (460-119025-8), RW-2(452-462)-082216 (460-119025-9), RW-2(279-289)-082216 (460-119025-10), CMP-160-082216 (460-119025-11), CMP-100-082216 (460-119025-12), CMP-275-082216 (460-119025-13), CMP-50-082216 (460-119025-14) and SW-PMB-01-082316 (460-119025-16) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 08/30/2016 and 09/01/2016.

No difficulties were encountered during the dissolved Hg analysis.

All quality control parameters were within the acceptance limits.

MERCURY DKQP

Samples PMP-Pond-082216 (460-119025-1), Dup-03-082216 (460-119025-2), SW-PAB-02-082216 (460-119025-3), SW-PAB-03-082216 (460-119025-4), SW-PMB-02-082216 (460-119025-5), SW-MRB-01-082216 (460-119025-6), SW-NOB-01-082216 (460-119025-7), RW-12(55-65)-082216 (460-119025-8), RW-2(452-462)-082216 (460-119025-9), RW-2(279-289)-082216 (460-119025-10), CMP-160-082216 (460-119025-11), CMP-100-082216 (460-119025-12), CMP-275-082216 (460-119025-13), CMP-50-082216 (460-119025-14) and SW-PMB-01-082316 (460-119025-16) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 08/25/2016 and 08/26/2016.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

ANIONS

Samples PMP-Pond-082216 (460-119025-1), Dup-03-082216 (460-119025-2), SW-PAB-02-082216 (460-119025-3), SW-PAB-03-082216 (460-119025-4), SW-PMB-02-082216 (460-119025-5), SW-MRB-01-082216 (460-119025-6), SW-NOB-01-082216 (460-119025-7), RW-12(55-65)-082216 (460-119025-8), RW-2(452-462)-082216 (460-119025-9), RW-2(279-289)-082216 (460-119025-10), CMP-160-082216 (460-119025-11), CMP-100-082216 (460-119025-12), CMP-275-082216 (460-119025-13), CMP-50-082216 (460-119025-14) and SW-PMB-01-082316 (460-119025-16) were analyzed for anions in accordance with EPA SW-846 Method 9056. The samples were analyzed on 08/29/2016, 08/30/2016 and 09/02/2016.

Chloride failed the recovery criteria high for the MS of sample SW-PAB-02-082216MS (460-119025-3) in batch 460-387602.

Sulfate failed the recovery criteria low for the MSD of sample SW-PAB-02-082216MSD (460-119025-3) in batch 460-387602. Chloride failed the recovery criteria high.

Sulfate failed the recovery criteria low for the MS/MSD of sample RW-2(452-462)-082216MS/MSD (460-119025-9) in batch 460-388332. Chloride failed the recovery criteria high.

Refer to the QC report for details.

Fluoride exceeded the RPD limit for the duplicate of sample SW-PAB-02-082216DU (460-119025-3). for the duplicate of sample SW-MRB-01-082216DU (460-119025-6). Refer to the QC report for details.

Samples SW-PAB-02-082216 (460-119025-3)[2X], SW-PAB-03-082216 (460-119025-4)[2X], SW-PMB-02-082216 (460-119025-5)[50X], RW-12(55-65)-082216 (460-119025-8)[50X], RW-2(452-462)-082216 (460-119025-9)[200X], CMP-160-082216 (460-119025-11)[100X], CMP-100-082216 (460-119025-12)[100X], CMP-275-082216 (460-119025-13)[100X], CMP-50-082216 (460-119025-14)[100X] and SW-PMB-01-082316 (460-119025-16)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the anions analysis.

All other quality control parameters were within the acceptance limits.

ALKALINITY

Samples PMP-Pond-082216 (460-119025-1), Dup-03-082216 (460-119025-2), SW-PAB-02-082216 (460-119025-3), SW-PAB-03-082216 (460-119025-4), SW-PMB-02-082216 (460-119025-5), SW-MRB-01-082216 (460-119025-6), SW-NOB-01-082216 (460-119025-7),

Job ID: 460-119025-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

RW-12(55-65)-082216 (460-119025-8), RW-2(452-462)-082216 (460-119025-9), RW-2(279-289)-082216 (460-119025-10), CMP-160-082216 (460-119025-11), CMP-100-082216 (460-119025-12), CMP-275-082216 (460-119025-13), CMP-50-082216 (460-119025-14) and SW-PMB-01-082316 (460-119025-16) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 09/02/2016.

No difficulties were encountered during the alkalinity analysis.

All quality control parameters were within the acceptance limits.

CYANIDE DKQP

Samples PMP-Pond-082216 (460-119025-1), Dup-03-082216 (460-119025-2), SW-PAB-02-082216 (460-119025-3), SW-PAB-03-082216 (460-119025-4), SW-PMB-02-082216 (460-119025-5), SW-MRB-01-082216 (460-119025-6), SW-NOB-01-082216 (460-119025-7), RW-12(55-65)-082216 (460-119025-8), RW-2(452-462)-082216 (460-119025-9), RW-2(279-289)-082216 (460-119025-10), CMP-160-082216 (460-119025-11), CMP-100-082216 (460-119025-12), CMP-275-082216 (460-119025-13), CMP-50-082216 (460-119025-14) and SW-PMB-01-082316 (460-119025-16) were analyzed for cyanide in accordance with EPA SW-846 Method 9012B (DKQP). The samples were prepared and analyzed on 09/02/2016.

No difficulties were encountered during the cyanide analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: PMP-Pond-082216 — Lab Sample ID: 460-119025-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.8	J	5.0	1.1	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	1.9	J B	10	0.82	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.9	J	2.0	0.72	ug/L	1		8270D	Total/NA
Chloride	1.69		0.12	0.030	mg/L	1		9056A	Total/NA
Barium	100		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	220		8.0	3.0	ug/L	2		6020A	Total/NA
Lead	0.63	J	1.2	0.44	ug/L	2		6020A	Total/NA
Aluminum	20.9	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	3280		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	3320		200	68.4	ug/L	2		6020A	Total/NA
Potassium	5130		200	74.8	ug/L	2		6020A	Total/NA
Calcium	20000		200	69.5	ug/L	2		6020A	Total/NA
Iron	1780		120	49.1	ug/L	2		6020A	Total/NA
Barium	99.7		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	143		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	5770		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	3290		200	68.4	ug/L	2		6020A	Dissolved
Potassium	5220		200	74.8	ug/L	2		6020A	Dissolved
Calcium	20900		200	69.5	ug/L	2		6020A	Dissolved
Iron	61.3	J	120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	80.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	80.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: Dup-03-082216 — Lab Sample ID: 460-119025-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.9		5.0	1.1	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	1.4	J B	10	0.82	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.9	J	2.0	0.72	ug/L	1		8270D	Total/NA
Chloride	1.67		0.12	0.030	mg/L	1		9056A	Total/NA
Barium	101		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	220		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	20.1	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	2330		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	3310		200	68.4	ug/L	2		6020A	Total/NA
Potassium	5130		200	74.8	ug/L	2		6020A	Total/NA
Calcium	19900		200	69.5	ug/L	2		6020A	Total/NA
Iron	1770		120	49.1	ug/L	2		6020A	Total/NA
Barium	102		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	148		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	2260		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	3300		200	68.4	ug/L	2		6020A	Dissolved
Potassium	5090		200	74.8	ug/L	2		6020A	Dissolved
Calcium	20900		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	76.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	76.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SW-PAB-02-082216 — Lab Sample ID: 460-119025-3

This Detection Summary does not include radiochemical test results.

Client Sample ID: SW-PAB-02-082216 (Continued) — Lab Sample ID: 460-119025-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.9		5.0	1.1	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	2.8	J B	10	0.82	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	3.2		2.0	0.72	ug/L	1		8270D	Total/NA
Sulfate	0.93		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	5.96	F1 D	0.24	0.060	mg/L	2		9056A	Total/NA
Barium	103		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	1800		8.0	3.0	ug/L	2		6020A	Total/NA
Zinc	6.6	J	16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	26.0	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	6300		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	4790		200	68.4	ug/L	2		6020A	Total/NA
Potassium	1640		200	74.8	ug/L	2		6020A	Total/NA
Calcium	28100		200	69.5	ug/L	2		6020A	Total/NA
Iron	5790		120	49.1	ug/L	2		6020A	Total/NA
Barium	84.2		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	1110		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	6480		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	4610		200	68.4	ug/L	2		6020A	Dissolved
Potassium	1480		200	74.8	ug/L	2		6020A	Dissolved
Calcium	28200		200	69.5	ug/L	2		6020A	Dissolved
Iron	182		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	94.5		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	94.5		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SW-PAB-03-082216 — Lab Sample ID: 460-119025-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.6	J	5.0	1.1	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	1.9	J B	10	0.82	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.9	J	2.0	0.72	ug/L	1		8270D	Total/NA
Sulfate	0.80		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	7.19	D	0.24	0.060	mg/L	2		9056A	Total/NA
Arsenic	0.86	J	2.0	0.71	ug/L	2		6020A	Total/NA
Barium	113		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	3200		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	43.6		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	6680		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	5390		200	68.4	ug/L	2		6020A	Total/NA
Potassium	637		200	74.8	ug/L	2		6020A	Total/NA
Calcium	31100		200	69.5	ug/L	2		6020A	Total/NA
Iron	12700		120	49.1	ug/L	2		6020A	Total/NA
Barium	100		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	3360		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	6950		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	5260		200	68.4	ug/L	2		6020A	Dissolved
Potassium	658		200	74.8	ug/L	2		6020A	Dissolved
Calcium	31400		200	69.5	ug/L	2		6020A	Dissolved
Iron	61.4	J	120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	105		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	105		5.0	5.0	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-PMB-02-082216 — Lab Sample ID: 460-119025-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dibromo-3-Chloropropane	0.0091	J	0.020	0.0070	ug/L	1		8260C SIM	Total/NA
Acetone	4.2	J	5.0	1.1	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	2.0	J B	11	0.93	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	2.2	J	2.3	0.82	ug/L	1		8270D	Total/NA
Sulfate	6.74		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	85.4	D	6.00	1.50	mg/L	50		9056A	Total/NA
Barium	19.2		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	247		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	72.9		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	44700		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	11600		200	68.4	ug/L	2		6020A	Total/NA
Potassium	4630		200	74.8	ug/L	2		6020A	Total/NA
Calcium	43300		200	69.5	ug/L	2		6020A	Total/NA
Iron	692		120	49.1	ug/L	2		6020A	Total/NA
Barium	19.0		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	159		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	49300		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	13100		200	68.4	ug/L	2		6020A	Dissolved
Potassium	4820		200	74.8	ug/L	2		6020A	Dissolved
Calcium	46500		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	147		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	147		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: SW-MRB-01-082216 — Lab Sample ID: 460-119025-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.2	J	5.0	1.1	ug/L	1		8260C	Total/NA
Bis(2-ethylhexyl) phthalate	1.1	J	2.1	0.75	ug/L	1		8270D	Total/NA
Chloride	1.83		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	4.97		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	11.4		4.0	1.5	ug/L	2		6020A	Total/NA
Copper	2.1	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	78.3		8.0	3.0	ug/L	2		6020A	Total/NA
Aluminum	121		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	2520		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	1610		200	68.4	ug/L	2		6020A	Total/NA
Potassium	532		200	74.8	ug/L	2		6020A	Total/NA
Calcium	4450		200	69.5	ug/L	2		6020A	Total/NA
Iron	502		120	49.1	ug/L	2		6020A	Total/NA
Barium	10.4		4.0	1.5	ug/L	2		6020A	Dissolved
Copper	1.6	J	4.0	1.6	ug/L	2		6020A	Dissolved
Manganese	4.1	J	8.0	3.0	ug/L	2		6020A	Dissolved
Aluminum	15.2	J	40.0	13.5	ug/L	2		6020A	Dissolved
Sodium	2410		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	1560		200	68.4	ug/L	2		6020A	Dissolved
Potassium	503		200	74.8	ug/L	2		6020A	Dissolved
Calcium	4500		200	69.5	ug/L	2		6020A	Dissolved
Iron	112	J	120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	24.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	24.1		5.0	5.0	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-NOB-01-082216 — Lab Sample ID: 460-119025-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.5		5.0	1.1	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	2.2	J B	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	2.3		2.1	0.75	ug/L	1		8270D	Total/NA
Chloride	1.65		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	5.05		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	14.6		4.0	1.5	ug/L	2		6020A	Total/NA
Copper	1.9	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	44.9		8.0	3.0	ug/L	2		6020A	Total/NA
Lead	0.67	J	1.2	0.44	ug/L	2		6020A	Total/NA
Vanadium	1.7	J	4.0	1.4	ug/L	2		6020A	Total/NA
Aluminum	247		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	2580		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	3130		200	68.4	ug/L	2		6020A	Total/NA
Potassium	749		200	74.8	ug/L	2		6020A	Total/NA
Calcium	8800		200	69.5	ug/L	2		6020A	Total/NA
Iron	536		120	49.1	ug/L	2		6020A	Total/NA
Barium	13.6		4.0	1.5	ug/L	2		6020A	Dissolved
Copper	1.6	J	4.0	1.6	ug/L	2		6020A	Dissolved
Manganese	15.9		8.0	3.0	ug/L	2		6020A	Dissolved
Aluminum	70.6		40.0	13.5	ug/L	2		6020A	Dissolved
Sodium	2520		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	3110		200	68.4	ug/L	2		6020A	Dissolved
Potassium	713		200	74.8	ug/L	2		6020A	Dissolved
Calcium	8830		200	69.5	ug/L	2		6020A	Dissolved
Iron	201		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	30.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	30.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-12(55-65)-082216 — Lab Sample ID: 460-119025-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	12		5.0	1.1	ug/L	1		8260C	Total/NA
Carbon disulfide	1.1		1.0	0.22	ug/L	1		8260C	Total/NA
Toluene	1.9		1.0	0.25	ug/L	1		8260C	Total/NA
Phenol	6.3	J	10	0.43	ug/L	1		8270D	Total/NA
Isophorone	2.1	J	10	0.70	ug/L	1		8270D	Total/NA
Di-n-butyl phthalate	1.9	J B	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	2.2		2.1	0.75	ug/L	1		8270D	Total/NA
Polychlorinated biphenyls, Total	0.33	J	0.40	0.098	ug/L	1		8082A	Total/NA
PCB-1248	0.33	J	0.40	0.098	ug/L	1		8082A	Total/NA
Chloride - DL	51.1	D	6.00	1.50	mg/L	50		9056A	Total/NA
Sulfate - DL	291	D	30.0	5.25	mg/L	50		9056A	Total/NA
Arsenic	12.0		2.0	0.71	ug/L	2		6020A	Total/NA
Barium	20.6		4.0	1.5	ug/L	2		6020A	Total/NA
Nickel	2.1	J	4.0	1.6	ug/L	2		6020A	Total/NA
Selenium	6.3	J	10.0	0.79	ug/L	2		6020A	Total/NA
Vanadium	2.3	J	4.0	1.4	ug/L	2		6020A	Total/NA
Aluminum	156		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	128000		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	484		200	68.4	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RW-12(55-65)-082216 (Continued) — Lab Sample ID: 460-119025-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	23800		200	74.8	ug/L	2		6020A	Total/NA
Calcium	61800		200	69.5	ug/L	2		6020A	Total/NA
Arsenic	13.9		2.0	0.71	ug/L	2		6020A	Dissolved
Barium	22.1		4.0	1.5	ug/L	2		6020A	Dissolved
Nickel	1.7	J	4.0	1.6	ug/L	2		6020A	Dissolved
Selenium	7.1	J	10.0	0.79	ug/L	2		6020A	Dissolved
Vanadium	2.0	J	4.0	1.4	ug/L	2		6020A	Dissolved
Aluminum	150		40.0	13.5	ug/L	2		6020A	Dissolved
Sodium	140000		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	590		200	68.4	ug/L	2		6020A	Dissolved
Potassium	23600		200	74.8	ug/L	2		6020A	Dissolved
Calcium	64100		200	69.5	ug/L	2		6020A	Dissolved
Alkalinity	98.5		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-2(452-462)-082216 — Lab Sample ID: 460-119025-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	16		5.0	1.1	ug/L	1		8260C	Total/NA
Benzene	0.20	J	1.0	0.090	ug/L	1		8260C	Total/NA
Carbon disulfide	0.70	J	1.0	0.22	ug/L	1		8260C	Total/NA
Chloromethane	0.32	J	1.0	0.22	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	0.32	J	1.0	0.13	ug/L	1		8260C	Total/NA
Toluene	0.69	J	1.0	0.25	ug/L	1		8260C	Total/NA
Vinyl chloride	0.20	J	1.0	0.060	ug/L	1		8260C	Total/NA
Phenol	11		10	0.43	ug/L	1		8270D	Total/NA
Di-n-butyl phthalate	1.5	J B	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.5	J	2.1	0.75	ug/L	1		8270D	Total/NA
Polychlorinated biphenyls, Total	0.77		0.40	0.098	ug/L	1		8082A	Total/NA
PCB-1248	0.77		0.40	0.098	ug/L	1		8082A	Total/NA
Chloride - DL	636	D F1	24.0	6.00	mg/L	200		9056A	Total/NA
Sulfate - DL	375	D F1	120	21.0	mg/L	200		9056A	Total/NA
Arsenic	4.3		2.0	0.71	ug/L	2		6020A	Total/NA
Barium	53.5		4.0	1.5	ug/L	2		6020A	Total/NA
Nickel	6.6		4.0	1.6	ug/L	2		6020A	Total/NA
Selenium	3.1	J	10.0	0.79	ug/L	2		6020A	Total/NA
Vanadium	30.8		4.0	1.4	ug/L	2		6020A	Total/NA
Aluminum	114		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	297000		200	87.6	ug/L	2		6020A	Total/NA
Potassium	97500		200	74.8	ug/L	2		6020A	Total/NA
Calcium	115000		200	69.5	ug/L	2		6020A	Total/NA
Iron	56.4	J	120	49.1	ug/L	2		6020A	Total/NA
Arsenic	4.8		2.0	0.71	ug/L	2		6020A	Dissolved
Barium	58.6		4.0	1.5	ug/L	2		6020A	Dissolved
Nickel	6.5		4.0	1.6	ug/L	2		6020A	Dissolved
Selenium	3.6	J	10.0	0.79	ug/L	2		6020A	Dissolved
Vanadium	31.3		4.0	1.4	ug/L	2		6020A	Dissolved
Aluminum	97.9		40.0	13.5	ug/L	2		6020A	Dissolved
Sodium	332000		200	87.6	ug/L	2		6020A	Dissolved
Potassium	93500		200	74.8	ug/L	2		6020A	Dissolved
Calcium	122000		200	69.5	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: RW-2(452-462)-082216 (Continued) — Lab Sample ID: 460-119025-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Alkalinity	127		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-2(279-289)-082216 — Lab Sample ID: 460-119025-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	0.39	J	1.0	0.22	ug/L	1		8260C	Total/NA
1,3-Dichlorobenzene	0.77	J	1.0	0.33	ug/L	1		8260C	Total/NA
1,4-Dichlorobenzene	1.5		1.0	0.33	ug/L	1		8260C	Total/NA
Acetone	13		5.0	1.1	ug/L	1		8260C	Total/NA
Benzene	0.34	J	1.0	0.090	ug/L	1		8260C	Total/NA
Chlorobenzene	12		1.0	0.24	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	0.25	J	1.0	0.13	ug/L	1		8260C	Total/NA
Toluene	0.42	J	1.0	0.25	ug/L	1		8260C	Total/NA
Bis(2-chloroethyl)ether	0.033		0.021	0.0094	ug/L	1		8270D SIM	Total/NA
Bis(2-ethylhexyl) phthalate	1.9	J	2.1	0.75	ug/L	1		8270D	Total/NA
Chloride	0.21		0.12	0.030	mg/L	1		9056A	Total/NA
Arsenic	1.7	J	2.0	0.71	ug/L	2		6020A	Total/NA
Barium	27.0		4.0	1.5	ug/L	2		6020A	Total/NA
Copper	2.2	J	4.0	1.6	ug/L	2		6020A	Total/NA
Nickel	3.3	J	4.0	1.6	ug/L	2		6020A	Total/NA
Antimony	1.0	J	2.0	0.76	ug/L	2		6020A	Total/NA
Vanadium	15.2		4.0	1.4	ug/L	2		6020A	Total/NA
Aluminum	163		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	106000		200	87.6	ug/L	2		6020A	Total/NA
Potassium	7860		200	74.8	ug/L	2		6020A	Total/NA
Calcium	116000		200	69.5	ug/L	2		6020A	Total/NA
Arsenic	1.9	J	2.0	0.71	ug/L	2		6020A	Dissolved
Barium	28.9		4.0	1.5	ug/L	2		6020A	Dissolved
Nickel	2.7	J	4.0	1.6	ug/L	2		6020A	Dissolved
Antimony	0.86	J	2.0	0.76	ug/L	2		6020A	Dissolved
Vanadium	15.5		4.0	1.4	ug/L	2		6020A	Dissolved
Aluminum	172		40.0	13.5	ug/L	2		6020A	Dissolved
Sodium	116000		200	87.6	ug/L	2		6020A	Dissolved
Potassium	7940		200	74.8	ug/L	2		6020A	Dissolved
Calcium	122000		200	69.5	ug/L	2		6020A	Dissolved
Alkalinity	94.5		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: CMP-160-082216 — Lab Sample ID: 460-119025-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.4		5.0	1.1	ug/L	1		8260C	Total/NA
Methylene Chloride	0.80	J	1.0	0.21	ug/L	1		8260C	Total/NA
Xylenes, Total	0.65	J	2.0	0.28	ug/L	1		8260C	Total/NA
Pentachlorophenol	0.11	J	0.21	0.080	ug/L	1		8270D SIM	Total/NA
Di-n-butyl phthalate	1.5	J B	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.5	J	2.1	0.75	ug/L	1		8270D	Total/NA
Sulfate	2.94		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	168	D	12.0	3.00	mg/L	100		9056A	Total/NA
Barium	52.3		4.0	1.5	ug/L	2		6020A	Total/NA
Cadmium	10.8		2.0	0.72	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CMP-160-082216 (Continued) — Lab Sample ID: 460-119025-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	4.8		4.0	1.5	ug/L	2		6020A	Total/NA
Copper	6.5		4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	453		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	2.2	J	4.0	1.6	ug/L	2		6020A	Total/NA
Lead	163		1.2	0.44	ug/L	2		6020A	Total/NA
Zinc	3010		40.0	16.2	ug/L	5		6020A	Total/NA
Aluminum	26.4	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	80400		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	13600		200	68.4	ug/L	2		6020A	Total/NA
Potassium	2150		200	74.8	ug/L	2		6020A	Total/NA
Calcium	44900		200	69.5	ug/L	2		6020A	Total/NA
Iron	12900		120	49.1	ug/L	2		6020A	Total/NA
Barium	48.2		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	396		8.0	3.0	ug/L	2		6020A	Dissolved
Nickel	1.7	J	4.0	1.6	ug/L	2		6020A	Dissolved
Zinc	402		16.0	6.5	ug/L	2		6020A	Dissolved
Sodium	87100		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	15000		200	68.4	ug/L	2		6020A	Dissolved
Potassium	2090		200	74.8	ug/L	2		6020A	Dissolved
Calcium	47500		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	135		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	135		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: CMP-100-082216 — Lab Sample ID: 460-119025-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.6		5.0	1.1	ug/L	1		8260C	Total/NA
Chloroform	0.26	J	1.0	0.22	ug/L	1		8260C	Total/NA
Methylene Chloride	0.49	J	1.0	0.21	ug/L	1		8260C	Total/NA
Xylenes, Total	0.42	J	2.0	0.28	ug/L	1		8260C	Total/NA
Pentachlorophenol	0.11	J	0.21	0.080	ug/L	1		8270D SIM	Total/NA
Sulfate	6.50		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	146	D	12.0	3.00	mg/L	100		9056A	Total/NA
Barium	44.3		4.0	1.5	ug/L	2		6020A	Total/NA
Chromium	2.0	J	4.0	1.5	ug/L	2		6020A	Total/NA
Copper	1.7	J	4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	275		8.0	3.0	ug/L	2		6020A	Total/NA
Lead	0.51	J	1.2	0.44	ug/L	2		6020A	Total/NA
Zinc	1070		16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	43.9		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	80500		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	11100		200	68.4	ug/L	2		6020A	Total/NA
Potassium	2110		200	74.8	ug/L	2		6020A	Total/NA
Calcium	38300		200	69.5	ug/L	2		6020A	Total/NA
Iron	8650		120	49.1	ug/L	2		6020A	Total/NA
Barium	37.5		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	253		8.0	3.0	ug/L	2		6020A	Dissolved
Zinc	46.0		16.0	6.5	ug/L	2		6020A	Dissolved
Sodium	83200		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	11700		200	68.4	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: CMP-100-082216 (Continued) — Lab Sample ID: 460-119025-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	2080		200	74.8	ug/L	2		6020A	Dissolved
Calcium	38200		200	69.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	125		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	125		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: CMP-275-082216 — Lab Sample ID: 460-119025-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.6		5.0	1.1	ug/L	1		8260C	Total/NA
Methylene Chloride	0.86	J	1.0	0.21	ug/L	1		8260C	Total/NA
Xylenes, Total	0.43	J	2.0	0.28	ug/L	1		8260C	Total/NA
Pentachlorophenol	0.12	J	0.21	0.080	ug/L	1		8270D SIM	Total/NA
Di-n-butyl phthalate	2.5	J B	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	2.8		2.1	0.75	ug/L	1		8270D	Total/NA
Sulfate	0.71		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	85.9	D	12.0	3.00	mg/L	100		9056A	Total/NA
Arsenic	0.94	J	2.0	0.71	ug/L	2		6020A	Total/NA
Barium	134		4.0	1.5	ug/L	2		6020A	Total/NA
Cadmium	13.2		2.0	0.72	ug/L	2		6020A	Total/NA
Chromium	25.5		4.0	1.5	ug/L	2		6020A	Total/NA
Copper	40.3		4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	1230		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	7.3		4.0	1.6	ug/L	2		6020A	Total/NA
Lead	192		1.2	0.44	ug/L	2		6020A	Total/NA
Vanadium	1.4	J	4.0	1.4	ug/L	2		6020A	Total/NA
Zinc	4260		40.0	16.2	ug/L	5		6020A	Total/NA
Aluminum	50.4		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	53600		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	21100		200	68.4	ug/L	2		6020A	Total/NA
Potassium	7580		200	74.8	ug/L	2		6020A	Total/NA
Calcium	89400		200	69.5	ug/L	2		6020A	Total/NA
Iron	21900		120	49.1	ug/L	2		6020A	Total/NA
Barium	99.7		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	1160		8.0	3.0	ug/L	2		6020A	Dissolved
Nickel	4.4		4.0	1.6	ug/L	2		6020A	Dissolved
Zinc	532		16.0	6.5	ug/L	2		6020A	Dissolved
Sodium	58300		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	23200		200	68.4	ug/L	2		6020A	Dissolved
Potassium	7310		200	74.8	ug/L	2		6020A	Dissolved
Calcium	93800		200	69.5	ug/L	2		6020A	Dissolved
Iron	2090		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	352		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	352		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: CMP-50-082216 — Lab Sample ID: 460-119025-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.9	J	5.0	1.1	ug/L	1		8260C	Total/NA
Chloroform	2.3		1.0	0.22	ug/L	1		8260C	Total/NA
Methylene Chloride	0.70	J	1.0	0.21	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: CMP-50-082216 (Continued) — Lab Sample ID: 460-119025-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pentachlorophenol	0.10	J	0.21	0.080	ug/L	1		8270D SIM	Total/NA
Di-n-butyl phthalate	1.7	J B	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.7	J	2.1	0.75	ug/L	1		8270D	Total/NA
Sulfate	13.6		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	142	D	12.0	3.00	mg/L	100		9056A	Total/NA
Barium	40.8		4.0	1.5	ug/L	2		6020A	Total/NA
Manganese	121		8.0	3.0	ug/L	2		6020A	Total/NA
Lead	0.47	J	1.2	0.44	ug/L	2		6020A	Total/NA
Zinc	65.7		16.0	6.5	ug/L	2		6020A	Total/NA
Aluminum	21.1	J	40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	77400		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	9660		200	68.4	ug/L	2		6020A	Total/NA
Potassium	2090		200	74.8	ug/L	2		6020A	Total/NA
Calcium	36500		200	69.5	ug/L	2		6020A	Total/NA
Iron	1180		120	49.1	ug/L	2		6020A	Total/NA
Barium	43.8		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	109		8.0	3.0	ug/L	2		6020A	Dissolved
Zinc	25.0		16.0	6.5	ug/L	2		6020A	Dissolved
Sodium	83600		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	10600		200	68.4	ug/L	2		6020A	Dissolved
Potassium	2000		200	74.8	ug/L	2		6020A	Dissolved
Calcium	38300		200	69.5	ug/L	2		6020A	Dissolved
Iron	136		120	49.1	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	107		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	107		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: TB-05-082216 — Lab Sample ID: 460-119025-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.6		5.0	1.1	ug/L	1		8260C	Total/NA

Client Sample ID: SW-PMB-01-082316 — Lab Sample ID: 460-119025-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.8		5.0	1.1	ug/L	1		8260C	Total/NA
Pentachlorophenol	0.12	J	0.21	0.080	ug/L	1		8270D SIM	Total/NA
Di-n-butyl phthalate	2.7	J B	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	4.0		2.1	0.75	ug/L	1		8270D	Total/NA
Sulfate	1.99		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	139	D	12.0	3.00	mg/L	100		9056A	Total/NA
Arsenic	3.5		2.0	0.71	ug/L	2		6020A	Total/NA
Barium	345		4.0	1.5	ug/L	2		6020A	Total/NA
Cobalt	4.0		4.0	1.5	ug/L	2		6020A	Total/NA
Chromium	1.6	J	4.0	1.5	ug/L	2		6020A	Total/NA
Copper	8.0		4.0	1.6	ug/L	2		6020A	Total/NA
Manganese	17400		8.0	3.0	ug/L	2		6020A	Total/NA
Nickel	3.2	J	4.0	1.6	ug/L	2		6020A	Total/NA
Lead	3.2		1.2	0.44	ug/L	2		6020A	Total/NA
Vanadium	2.5	J	4.0	1.4	ug/L	2		6020A	Total/NA
Zinc	25.7		16.0	6.5	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-PMB-01-082316 (Continued)

Lab Sample ID: 460-119025-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	610		40.0	13.5	ug/L	2		6020A	Total/NA
Sodium	71400		200	87.6	ug/L	2		6020A	Total/NA
Magnesium	11100		200	68.4	ug/L	2		6020A	Total/NA
Potassium	10200		200	74.8	ug/L	2		6020A	Total/NA
Calcium	58900		200	69.5	ug/L	2		6020A	Total/NA
Iron	46800		120	49.1	ug/L	2		6020A	Total/NA
Barium	37.7		4.0	1.5	ug/L	2		6020A	Dissolved
Manganese	901		8.0	3.0	ug/L	2		6020A	Dissolved
Sodium	82100		200	87.6	ug/L	2		6020A	Dissolved
Magnesium	12600		200	68.4	ug/L	2		6020A	Dissolved
Potassium	10700		200	74.8	ug/L	2		6020A	Dissolved
Calcium	61400		200	69.5	ug/L	2		6020A	Dissolved
Iron	62.5	J	120	49.1	ug/L	2		6020A	Dissolved
Cyanide, Total	0.0061	J	0.010	0.0020	mg/L	1		9012B	Total/NA
Bicarbonate Alkalinity as CaCO3	205		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	205		5.0	5.0	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: PMP-Pond-082216

Date Collected: 08/22/16 08:30
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-1

Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/26/16 02:58	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 02:58	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 02:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*08/26/16 02:58*	*1*
4-Bromofluorobenzene	*91*		*70 - 130*		*08/26/16 02:58*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 01:31	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 01:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 01:31	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 01:31	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 01:31	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 01:31	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 01:31	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 01:31	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 01:31	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 01:31	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 01:31	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 01:31	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 01:31	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 01:31	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 01:31	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 01:31	1
Acetone	**4.8**	**J**	5.0	1.1	ug/L			08/25/16 01:31	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 01:31	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 01:31	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 01:31	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 01:31	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 01:31	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 01:31	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 01:31	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 01:31	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 01:31	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 01:31	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 01:31	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 01:31	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 01:31	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 01:31	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 01:31	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 01:31	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 01:31	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 01:31	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 01:31	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 01:31	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 01:31	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 01:31	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 01:31	1

Client Sample ID: PMP-Pond-082216
Date Collected: 08/22/16 08:30
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 01:31	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 01:31	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 01:31	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 01:31	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 01:31	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 01:31	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 01:31	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 01:31	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 01:31*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*08/25/16 01:31*	*1*
4-Bromofluorobenzene	*95*		*70 - 130*		*08/25/16 01:31*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*08/25/16 01:31*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/25/16 01:31*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/27/16 12:54	08/31/16 22:39	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/27/16 12:54	08/31/16 22:39	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/27/16 12:54	08/31/16 22:39	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/27/16 12:54	08/31/16 22:39	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/27/16 12:54	08/31/16 22:39	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		08/27/16 12:54	08/31/16 22:39	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/27/16 12:54	08/31/16 22:39	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/27/16 12:54	08/31/16 22:39	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/27/16 12:54	08/31/16 20:30	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/27/16 12:54	08/31/16 20:30	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 12:54	08/31/16 20:30	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/27/16 12:54	08/31/16 20:30	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/27/16 12:54	08/31/16 20:30	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/27/16 12:54	08/31/16 20:30	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 20:30	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/27/16 12:54	08/31/16 20:30	1
2,4,6-Trichlorophenol	0.53	U *	10	0.53	ug/L		08/27/16 12:54	08/31/16 20:30	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/27/16 12:54	08/31/16 20:30	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/27/16 12:54	08/31/16 20:30	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/27/16 12:54	08/31/16 20:30	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/27/16 12:54	08/31/16 20:30	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/27/16 12:54	08/31/16 20:30	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/27/16 12:54	08/31/16 20:30	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/27/16 12:54	08/31/16 20:30	1
Isophorone	0.67	U	10	0.67	ug/L		08/27/16 12:54	08/31/16 20:30	1
Naphthalene	0.80	U	10	0.80	ug/L		08/27/16 12:54	08/31/16 20:30	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/27/16 12:54	08/31/16 20:30	1

Client Sample ID: PMP-Pond-082216
Date Collected: 08/22/16 08:30
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/27/16 12:54	08/31/16 20:30	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/27/16 12:54	08/31/16 20:30	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 20:30	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 20:30	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/27/16 12:54	08/31/16 20:30	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/27/16 12:54	08/31/16 20:30	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/27/16 12:54	08/31/16 20:30	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/27/16 12:54	08/31/16 20:30	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/27/16 12:54	08/31/16 20:30	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/27/16 12:54	08/31/16 20:30	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 20:30	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/27/16 12:54	08/31/16 20:30	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 20:30	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/27/16 12:54	08/31/16 20:30	1
Fluorene	0.80	U	10	0.80	ug/L		08/27/16 12:54	08/31/16 20:30	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/27/16 12:54	08/31/16 20:30	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/27/16 12:54	08/31/16 20:30	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 20:30	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/27/16 12:54	08/31/16 20:30	1
Anthracene	0.57	U	10	0.57	ug/L		08/27/16 12:54	08/31/16 20:30	1
Carbazole	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 20:30	1
Di-n-butyl phthalate	**1.9**	**J B**	10	0.82	ug/L		08/27/16 12:54	08/31/16 20:30	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 20:30	1
Pyrene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 20:30	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/27/16 12:54	08/31/16 20:30	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/27/16 12:54	08/31/16 20:30	1
Bis(2-ethylhexyl) phthalate	**1.9**	**J**	2.0	0.72	ug/L		08/27/16 12:54	08/31/16 20:30	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/27/16 12:54	08/31/16 20:30	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/27/16 12:54	08/31/16 20:30	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/27/16 12:54	08/31/16 20:30	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 20:30	1
Acetophenone	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 20:30	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/27/16 12:54	08/31/16 20:30	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 12:54	08/31/16 20:30	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/27/16 12:54	08/31/16 20:30	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/27/16 12:54	08/31/16 20:30	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/27/16 12:54	08/31/16 20:30	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/27/16 12:54	08/31/16 20:30	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 20:30	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/27/16 12:54	08/31/16 20:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*93*		*30 - 130*	*08/27/16 12:54*	*08/31/16 20:30*	*1*
Phenol-d5 (Surr)	*22*		*15 - 110*	*08/27/16 12:54*	*08/31/16 20:30*	*1*
Terphenyl-d14 (Surr)	*108*		*30 - 130*	*08/27/16 12:54*	*08/31/16 20:30*	*1*
2,4,6-Tribromophenol (Surr)	*107*		*15 - 110*	*08/27/16 12:54*	*08/31/16 20:30*	*1*
2-Fluorophenol (Surr)	*51*		*15 - 110*	*08/27/16 12:54*	*08/31/16 20:30*	*1*
2-Fluorobiphenyl	*86*		*30 - 130*	*08/27/16 12:54*	*08/31/16 20:30*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: PMP-Pond-082216
Date Collected: 08/22/16 08:30
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-1
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 11:38	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 11:38	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 11:38	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 11:38	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 11:38	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 11:38	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 11:38	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 11:38	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 11:38	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 11:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*106*		*30 - 150*	*08/25/16 08:37*	*08/26/16 11:38*	*1*
Tetrachloro-m-xylene	*103*		*30 - 150*	*08/25/16 08:37*	*08/26/16 11:38*	*1*
DCB Decachlorobiphenyl	*108*		*30 - 150*	*08/25/16 08:37*	*08/26/16 11:38*	*1*
DCB Decachlorobiphenyl	*109*		*30 - 150*	*08/25/16 08:37*	*08/26/16 11:38*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.69**		0.12	0.030	mg/L			08/29/16 21:20	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/29/16 21:20	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:36	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 07:58	09/02/16 04:36	2
Barium	**100**		4.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:36	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/02/16 04:36	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 07:58	09/02/16 04:36	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:36	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:36	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 04:36	2
Manganese	**220**		8.0	3.0	ug/L		08/29/16 07:58	09/02/16 04:36	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 04:36	2
Lead	**0.63**	**J**	1.2	0.44	ug/L		08/29/16 07:58	09/02/16 04:36	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/02/16 04:36	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 07:58	09/02/16 04:36	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 07:58	09/02/16 04:36	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 07:58	09/02/16 04:36	2
Aluminum	**20.9**	**J**	40.0	13.5	ug/L		08/29/16 07:58	09/02/16 04:36	2
Sodium	**3280**		200	87.6	ug/L		08/29/16 07:58	09/02/16 04:36	2
Magnesium	**3320**		200	68.4	ug/L		08/29/16 07:58	09/02/16 04:36	2
Potassium	**5130**		200	74.8	ug/L		08/29/16 07:58	09/02/16 04:36	2
Calcium	**20000**		200	69.5	ug/L		08/29/16 07:58	09/02/16 04:36	2
Iron	**1780**		120	49.1	ug/L		08/29/16 07:58	09/02/16 04:36	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/02/16 04:36	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	08/30/16 15:14	2

Client Sample ID: PMP-Pond-082216

Lab Sample ID: 460-119025-1

Date Collected: 08/22/16 08:30

Matrix: Water

Date Received: 08/23/16 11:45

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.71	U	2.0	0.71	ug/L		08/30/16 09:54	08/30/16 15:14	2
Barium	**99.7**		4.0	1.5	ug/L		08/30/16 09:54	08/30/16 15:14	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	08/30/16 15:14	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	08/30/16 15:14	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 15:14	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 15:14	2
Copper	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 15:14	2
Manganese	**143**		8.0	3.0	ug/L		08/30/16 09:54	08/30/16 15:14	2
Nickel	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 15:14	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	08/30/16 15:14	2
Antimony	0.76	U	2.0	0.76	ug/L		08/30/16 09:54	08/30/16 15:14	2
Selenium	0.79	U	10.0	0.79	ug/L		08/30/16 09:54	08/30/16 15:14	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/30/16 09:54	08/30/16 15:14	2
Zinc	6.5	U	16.0	6.5	ug/L		08/30/16 09:54	08/30/16 15:14	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/30/16 09:54	08/30/16 15:14	2
Sodium	**5770**		200	87.6	ug/L		08/30/16 09:54	08/30/16 15:14	2
Magnesium	**3290**		200	68.4	ug/L		08/30/16 09:54	08/30/16 15:14	2
Potassium	**5220**		200	74.8	ug/L		08/30/16 09:54	09/01/16 15:09	2
Calcium	**20900**		200	69.5	ug/L		08/30/16 09:54	08/30/16 15:14	2
Iron	**61.3**	**J**	120	49.1	ug/L		08/30/16 09:54	08/30/16 15:14	2
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	08/30/16 15:14	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:22	08/25/16 16:36	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 16:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/02/16 14:43	09/02/16 17:32	1
Bicarbonate Alkalinity as CaCO3	**80.4**		5.0	5.0	mg/L			09/02/16 17:48	1
Alkalinity	**80.4**		5.0	5.0	mg/L			09/02/16 17:48	1

Client Sample ID: Dup-03-082216

Lab Sample ID: 460-119025-2

Date Collected: 08/22/16 12:00

Matrix: Water

Date Received: 08/23/16 11:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/26/16 03:23	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 03:23	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 03:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/26/16 03:23*	*1*
4-Bromofluorobenzene	*92*		*70 - 130*		*08/26/16 03:23*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: Dup-03-082216
Date Collected: 08/22/16 12:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 01:57	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 01:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 01:57	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 01:57	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 01:57	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 01:57	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 01:57	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 01:57	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 01:57	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 01:57	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 01:57	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 01:57	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 01:57	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 01:57	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 01:57	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 01:57	1
Acetone	**5.9**		5.0	1.1	ug/L			08/25/16 01:57	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 01:57	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 01:57	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 01:57	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 01:57	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 01:57	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 01:57	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 01:57	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 01:57	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 01:57	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 01:57	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 01:57	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 01:57	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 01:57	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 01:57	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 01:57	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 01:57	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 01:57	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 01:57	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 01:57	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 01:57	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 01:57	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 01:57	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 01:57	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 01:57	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 01:57	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 01:57	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 01:57	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 01:57	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 01:57	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 01:57	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 01:57	1

Client Sample ID: Dup-03-082216
Date Collected: 08/22/16 12:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-2
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/25/16 01:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		08/25/16 01:57	1
4-Bromofluorobenzene	94		70 - 130		08/25/16 01:57	1
Dibromofluoromethane (Surr)	95		70 - 130		08/25/16 01:57	1
Toluene-d8 (Surr)	98		70 - 130		08/25/16 01:57	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/27/16 12:54	08/31/16 23:08	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/27/16 12:54	08/31/16 23:08	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/27/16 12:54	08/31/16 23:08	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/27/16 12:54	08/31/16 23:08	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/27/16 12:54	08/31/16 23:08	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		08/27/16 12:54	08/31/16 23:08	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/27/16 12:54	08/31/16 23:08	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/27/16 12:54	08/31/16 23:08	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/27/16 12:54	08/31/16 20:50	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/27/16 12:54	08/31/16 20:50	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 12:54	08/31/16 20:50	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/27/16 12:54	08/31/16 20:50	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/27/16 12:54	08/31/16 20:50	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/27/16 12:54	08/31/16 20:50	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 20:50	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/27/16 12:54	08/31/16 20:50	1
2,4,6-Trichlorophenol	0.53	U *	10	0.53	ug/L		08/27/16 12:54	08/31/16 20:50	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/27/16 12:54	08/31/16 20:50	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/27/16 12:54	08/31/16 20:50	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/27/16 12:54	08/31/16 20:50	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/27/16 12:54	08/31/16 20:50	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/27/16 12:54	08/31/16 20:50	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/27/16 12:54	08/31/16 20:50	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/27/16 12:54	08/31/16 20:50	1
Isophorone	0.67	U	10	0.67	ug/L		08/27/16 12:54	08/31/16 20:50	1
Naphthalene	0.80	U	10	0.80	ug/L		08/27/16 12:54	08/31/16 20:50	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/27/16 12:54	08/31/16 20:50	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/27/16 12:54	08/31/16 20:50	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/27/16 12:54	08/31/16 20:50	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 20:50	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 20:50	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/27/16 12:54	08/31/16 20:50	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/27/16 12:54	08/31/16 20:50	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/27/16 12:54	08/31/16 20:50	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/27/16 12:54	08/31/16 20:50	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/27/16 12:54	08/31/16 20:50	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/27/16 12:54	08/31/16 20:50	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 20:50	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: Dup-03-082216
Date Collected: 08/22/16 12:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/27/16 12:54	08/31/16 20:50	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 20:50	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/27/16 12:54	08/31/16 20:50	1
Fluorene	0.80	U	10	0.80	ug/L		08/27/16 12:54	08/31/16 20:50	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/27/16 12:54	08/31/16 20:50	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/27/16 12:54	08/31/16 20:50	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 20:50	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/27/16 12:54	08/31/16 20:50	1
Anthracene	0.57	U	10	0.57	ug/L		08/27/16 12:54	08/31/16 20:50	1
Carbazole	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 20:50	1
Di-n-butyl phthalate	**1.4**	**J B**	10	0.82	ug/L		08/27/16 12:54	08/31/16 20:50	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 20:50	1
Pyrene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 20:50	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/27/16 12:54	08/31/16 20:50	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/27/16 12:54	08/31/16 20:50	1
Bis(2-ethylhexyl) phthalate	**1.9**	**J**	2.0	0.72	ug/L		08/27/16 12:54	08/31/16 20:50	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/27/16 12:54	08/31/16 20:50	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/27/16 12:54	08/31/16 20:50	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/27/16 12:54	08/31/16 20:50	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 20:50	1
Acetophenone	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 20:50	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/27/16 12:54	08/31/16 20:50	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 12:54	08/31/16 20:50	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/27/16 12:54	08/31/16 20:50	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/27/16 12:54	08/31/16 20:50	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/27/16 12:54	08/31/16 20:50	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/27/16 12:54	08/31/16 20:50	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 20:50	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/27/16 12:54	08/31/16 20:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*96*		*30 - 130*	*08/27/16 12:54*	*08/31/16 20:50*	*1*
Phenol-d5 (Surr)	*24*		*15 - 110*	*08/27/16 12:54*	*08/31/16 20:50*	*1*
Terphenyl-d14 (Surr)	*108*		*30 - 130*	*08/27/16 12:54*	*08/31/16 20:50*	*1*
2,4,6-Tribromophenol (Surr)	*104*		*15 - 110*	*08/27/16 12:54*	*08/31/16 20:50*	*1*
2-Fluorophenol (Surr)	*46*		*15 - 110*	*08/27/16 12:54*	*08/31/16 20:50*	*1*
2-Fluorobiphenyl	*97*		*30 - 130*	*08/27/16 12:54*	*08/31/16 20:50*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 20:01	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 20:01	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 20:01	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 20:01	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 20:01	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 20:01	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 20:01	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 20:01	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 20:01	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 20:01	1

Client Sample ID: Dup-03-082216

Date Collected: 08/22/16 12:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-2

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*112*		*30 - 150*	*08/25/16 08:37*	*08/26/16 20:01*	*1*
Tetrachloro-m-xylene	*122*		*30 - 150*	*08/25/16 08:37*	*08/26/16 20:01*	*1*
DCB Decachlorobiphenyl	*118*		*30 - 150*	*08/25/16 08:37*	*08/26/16 20:01*	*1*
DCB Decachlorobiphenyl	*129*		*30 - 150*	*08/25/16 08:37*	*08/26/16 20:01*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.67**		0.12	0.030	mg/L			08/29/16 21:39	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/29/16 21:39	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:42	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 07:58	09/02/16 04:42	2
Barium	**101**		4.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:42	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/02/16 04:42	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 07:58	09/02/16 04:42	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:42	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:42	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 04:42	2
Manganese	**220**		8.0	3.0	ug/L		08/29/16 07:58	09/02/16 04:42	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 04:42	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 07:58	09/02/16 04:42	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/02/16 04:42	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 07:58	09/02/16 04:42	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 07:58	09/02/16 04:42	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 07:58	09/02/16 04:42	2
Aluminum	**20.1**	**J**	40.0	13.5	ug/L		08/29/16 07:58	09/02/16 04:42	2
Sodium	**2330**		200	87.6	ug/L		08/29/16 07:58	09/02/16 04:42	2
Magnesium	**3310**		200	68.4	ug/L		08/29/16 07:58	09/02/16 04:42	2
Potassium	**5130**		200	74.8	ug/L		08/29/16 07:58	09/02/16 04:42	2
Calcium	**19900**		200	69.5	ug/L		08/29/16 07:58	09/02/16 04:42	2
Iron	**1770**		120	49.1	ug/L		08/29/16 07:58	09/02/16 04:42	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/02/16 04:42	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	08/30/16 22:31	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/30/16 09:54	08/30/16 22:31	2
Barium	**102**		4.0	1.5	ug/L		08/30/16 09:54	08/30/16 22:31	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	08/30/16 22:31	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	08/30/16 22:31	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 22:31	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 22:31	2
Copper	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 22:31	2
Manganese	**148**		8.0	3.0	ug/L		08/30/16 09:54	08/30/16 22:31	2
Nickel	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 22:31	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	08/30/16 22:31	2
Antimony	0.76	U	2.0	0.76	ug/L		08/30/16 09:54	08/30/16 22:31	2
Selenium	0.79	U	10.0	0.79	ug/L		08/30/16 09:54	08/30/16 22:31	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/30/16 09:54	08/30/16 22:31	2

Client Sample ID: Dup-03-082216
Lab Sample ID: 460-119025-2
Date Collected: 08/22/16 12:00
Matrix: Water
Date Received: 08/23/16 11:45

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	6.5	U	16.0	6.5	ug/L		08/30/16 09:54	08/30/16 22:31	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/30/16 09:54	08/30/16 22:31	2
Sodium	**2260**		200	87.6	ug/L		08/30/16 09:54	08/30/16 22:31	2
Magnesium	**3300**		200	68.4	ug/L		08/30/16 09:54	08/30/16 22:31	2
Potassium	**5090**		200	74.8	ug/L		08/30/16 09:54	09/01/16 15:15	2
Calcium	**20900**		200	69.5	ug/L		08/30/16 09:54	08/30/16 22:31	2
Iron	49.1	U	120	49.1	ug/L		08/30/16 09:54	08/30/16 22:31	2
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	08/30/16 22:31	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:22	08/25/16 16:38	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 16:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/02/16 14:43	09/02/16 17:33	1
Bicarbonate Alkalinity as CaCO3	**76.4**		5.0	5.0	mg/L			09/02/16 17:48	1
Alkalinity	**76.4**		5.0	5.0	mg/L			09/02/16 17:48	1

Client Sample ID: SW-PAB-02-082216
Lab Sample ID: 460-119025-3
Date Collected: 08/22/16 14:45
Matrix: Water
Date Received: 08/23/16 11:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/27/16 18:35	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/27/16 18:35	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/27/16 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*08/27/16 18:35*	*1*
4-Bromofluorobenzene	*92*		*70 - 130*		*08/27/16 18:35*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 02:23	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 02:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 02:23	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 02:23	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 02:23	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 02:23	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 02:23	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 02:23	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 02:23	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 02:23	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 02:23	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 02:23	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-PAB-02-082216
Date Collected: 08/22/16 14:45
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 02:23	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 02:23	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 02:23	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 02:23	1
Acetone	**7.9**		5.0	1.1	ug/L			08/25/16 02:23	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 02:23	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 02:23	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 02:23	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 02:23	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 02:23	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 02:23	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 02:23	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 02:23	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 02:23	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 02:23	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 02:23	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 02:23	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 02:23	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 02:23	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 02:23	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 02:23	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 02:23	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 02:23	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 02:23	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 02:23	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 02:23	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 02:23	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 02:23	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 02:23	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 02:23	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 02:23	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 02:23	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 02:23	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 02:23	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 02:23	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 02:23	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 02:23*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*08/25/16 02:23*	*1*
4-Bromofluorobenzene	*96*		*70 - 130*		*08/25/16 02:23*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*08/25/16 02:23*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*08/25/16 02:23*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/27/16 12:54	08/31/16 23:36	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/27/16 12:54	08/31/16 23:36	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-PAB-02-082216
Date Collected: 08/22/16 14:45
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-3
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/27/16 12:54	08/31/16 23:36	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/27/16 12:54	08/31/16 23:36	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/27/16 12:54	08/31/16 23:36	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		08/27/16 12:54	08/31/16 23:36	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/27/16 12:54	08/31/16 23:36	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/27/16 12:54	08/31/16 23:36	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/27/16 12:54	08/31/16 21:10	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/27/16 12:54	08/31/16 21:10	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 12:54	08/31/16 21:10	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/27/16 12:54	08/31/16 21:10	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/27/16 12:54	08/31/16 21:10	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/27/16 12:54	08/31/16 21:10	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 21:10	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/27/16 12:54	08/31/16 21:10	1
2,4,6-Trichlorophenol	0.53	U *	10	0.53	ug/L		08/27/16 12:54	08/31/16 21:10	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/27/16 12:54	08/31/16 21:10	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/27/16 12:54	08/31/16 21:10	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/27/16 12:54	08/31/16 21:10	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/27/16 12:54	08/31/16 21:10	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/27/16 12:54	08/31/16 21:10	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/27/16 12:54	08/31/16 21:10	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/27/16 12:54	08/31/16 21:10	1
Isophorone	0.67	U	10	0.67	ug/L		08/27/16 12:54	08/31/16 21:10	1
Naphthalene	0.80	U	10	0.80	ug/L		08/27/16 12:54	08/31/16 21:10	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/27/16 12:54	08/31/16 21:10	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/27/16 12:54	08/31/16 21:10	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/27/16 12:54	08/31/16 21:10	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 21:10	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 21:10	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/27/16 12:54	08/31/16 21:10	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/27/16 12:54	08/31/16 21:10	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/27/16 12:54	08/31/16 21:10	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/27/16 12:54	08/31/16 21:10	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/27/16 12:54	08/31/16 21:10	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/27/16 12:54	08/31/16 21:10	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 21:10	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/27/16 12:54	08/31/16 21:10	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 21:10	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/27/16 12:54	08/31/16 21:10	1
Fluorene	0.80	U	10	0.80	ug/L		08/27/16 12:54	08/31/16 21:10	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/27/16 12:54	08/31/16 21:10	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/27/16 12:54	08/31/16 21:10	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 21:10	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/27/16 12:54	08/31/16 21:10	1
Anthracene	0.57	U	10	0.57	ug/L		08/27/16 12:54	08/31/16 21:10	1
Carbazole	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 21:10	1
Di-n-butyl phthalate	**2.8**	**J B**	10	0.82	ug/L		08/27/16 12:54	08/31/16 21:10	1

Client Sample ID: SW-PAB-02-082216
Date Collected: 08/22/16 14:45
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 21:10	1
Pyrene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 21:10	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/27/16 12:54	08/31/16 21:10	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/27/16 12:54	08/31/16 21:10	1
Bis(2-ethylhexyl) phthalate	**3.2**		2.0	0.72	ug/L		08/27/16 12:54	08/31/16 21:10	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/27/16 12:54	08/31/16 21:10	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/27/16 12:54	08/31/16 21:10	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/27/16 12:54	08/31/16 21:10	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 21:10	1
Acetophenone	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 21:10	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/27/16 12:54	08/31/16 21:10	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 12:54	08/31/16 21:10	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/27/16 12:54	08/31/16 21:10	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/27/16 12:54	08/31/16 21:10	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/27/16 12:54	08/31/16 21:10	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/27/16 12:54	08/31/16 21:10	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 21:10	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/27/16 12:54	08/31/16 21:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*91*		*30 - 130*	*08/27/16 12:54*	*08/31/16 21:10*	*1*
Phenol-d5 (Surr)	*18*		*15 - 110*	*08/27/16 12:54*	*08/31/16 21:10*	*1*
Terphenyl-d14 (Surr)	*108*		*30 - 130*	*08/27/16 12:54*	*08/31/16 21:10*	*1*
2,4,6-Tribromophenol (Surr)	*103*		*15 - 110*	*08/27/16 12:54*	*08/31/16 21:10*	*1*
2-Fluorophenol (Surr)	*43*		*15 - 110*	*08/27/16 12:54*	*08/31/16 21:10*	*1*
2-Fluorobiphenyl	*88*		*30 - 130*	*08/27/16 12:54*	*08/31/16 21:10*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 20:16	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 20:16	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 20:16	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 20:16	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 20:16	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 20:16	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 20:16	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 20:16	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 20:16	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*101*		*30 - 150*	*08/25/16 08:37*	*08/26/16 20:16*	*1*
Tetrachloro-m-xylene	*100*		*30 - 150*	*08/25/16 08:37*	*08/26/16 20:16*	*1*
DCB Decachlorobiphenyl	*113*		*30 - 150*	*08/25/16 08:37*	*08/26/16 20:16*	*1*
DCB Decachlorobiphenyl	*107*		*30 - 150*	*08/25/16 08:37*	*08/26/16 20:16*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**0.93**		0.60	0.11	mg/L			08/29/16 21:57	1

Client Sample ID: SW-PAB-02-082216
Date Collected: 08/22/16 14:45
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-3
Matrix: Water

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.96**	**F1 D**	0.24	0.060	mg/L			08/30/16 13:45	2

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:48	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 07:58	09/02/16 04:48	2
Barium	**103**		4.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:48	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/02/16 04:48	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 07:58	09/02/16 04:48	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:48	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:48	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 04:48	2
Manganese	**1800**		8.0	3.0	ug/L		08/29/16 07:58	09/02/16 04:48	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 04:48	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 07:58	09/02/16 04:48	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/02/16 04:48	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 07:58	09/02/16 04:48	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 07:58	09/02/16 04:48	2
Zinc	**6.6**	**J**	16.0	6.5	ug/L		08/29/16 07:58	09/02/16 04:48	2
Aluminum	**26.0**	**J**	40.0	13.5	ug/L		08/29/16 07:58	09/02/16 04:48	2
Sodium	**6300**		200	87.6	ug/L		08/29/16 07:58	09/02/16 04:48	2
Magnesium	**4790**		200	68.4	ug/L		08/29/16 07:58	09/02/16 04:48	2
Potassium	**1640**		200	74.8	ug/L		08/29/16 07:58	09/02/16 04:48	2
Calcium	**28100**		200	69.5	ug/L		08/29/16 07:58	09/02/16 04:48	2
Iron	**5790**		120	49.1	ug/L		08/29/16 07:58	09/02/16 04:48	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/02/16 04:48	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	08/30/16 22:37	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/30/16 09:54	08/30/16 22:37	2
Barium	**84.2**		4.0	1.5	ug/L		08/30/16 09:54	08/30/16 22:37	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	08/30/16 22:37	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	08/30/16 22:37	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 22:37	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 22:37	2
Copper	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 22:37	2
Manganese	**1110**		8.0	3.0	ug/L		08/30/16 09:54	08/30/16 22:37	2
Nickel	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 22:37	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	08/30/16 22:37	2
Antimony	0.76	U	2.0	0.76	ug/L		08/30/16 09:54	08/30/16 22:37	2
Selenium	0.79	U	10.0	0.79	ug/L		08/30/16 09:54	08/30/16 22:37	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/30/16 09:54	08/30/16 22:37	2
Zinc	6.5	U	16.0	6.5	ug/L		08/30/16 09:54	08/30/16 22:37	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/30/16 09:54	08/30/16 22:37	2
Sodium	**6480**		200	87.6	ug/L		08/30/16 09:54	08/30/16 22:37	2
Magnesium	**4610**		200	68.4	ug/L		08/30/16 09:54	08/30/16 22:37	2
Potassium	**1480**		200	74.8	ug/L		08/30/16 09:54	09/01/16 15:20	2
Calcium	**28200**		200	69.5	ug/L		08/30/16 09:54	08/30/16 22:37	2
Iron	**182**		120	49.1	ug/L		08/30/16 09:54	08/30/16 22:37	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-PAB-02-082216

Lab Sample ID: 460-119025-3

Date Collected: 08/22/16 14:45

Matrix: Water

Date Received: 08/23/16 11:45

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	08/30/16 22:37	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:22	08/25/16 16:40	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 16:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/02/16 14:43	09/02/16 17:34	1
Bicarbonate Alkalinity as CaCO3	**94.5**		5.0	5.0	mg/L			09/02/16 17:48	1
Alkalinity	**94.5**		5.0	5.0	mg/L			09/02/16 17:48	1

Client Sample ID: SW-PAB-03-082216

Lab Sample ID: 460-119025-4

Date Collected: 08/22/16 13:00

Matrix: Water

Date Received: 08/23/16 11:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/26/16 12:30	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 12:30	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 12:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*08/26/16 12:30*	*1*
4-Bromofluorobenzene	*104*		*70 - 130*		*08/26/16 12:30*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 02:49	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 02:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 02:49	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 02:49	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 02:49	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 02:49	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 02:49	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 02:49	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 02:49	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 02:49	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 02:49	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 02:49	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 02:49	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 02:49	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 02:49	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 02:49	1
Acetone	**4.6**	**J**	5.0	1.1	ug/L			08/25/16 02:49	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 02:49	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 02:49	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-PAB-03-082216
Date Collected: 08/22/16 13:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 02:49	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 02:49	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 02:49	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 02:49	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 02:49	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 02:49	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 02:49	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 02:49	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 02:49	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 02:49	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 02:49	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 02:49	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 02:49	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 02:49	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 02:49	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 02:49	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 02:49	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 02:49	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 02:49	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 02:49	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 02:49	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 02:49	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 02:49	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 02:49	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 02:49	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 02:49	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 02:49	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 02:49	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 02:49	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 02:49*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*08/25/16 02:49*	*1*
4-Bromofluorobenzene	*94*		*70 - 130*		*08/25/16 02:49*	*1*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*08/25/16 02:49*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*08/25/16 02:49*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/27/16 12:54	09/01/16 00:04	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/27/16 12:54	09/01/16 00:04	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/27/16 12:54	09/01/16 00:04	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/27/16 12:54	09/01/16 00:04	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/27/16 12:54	09/01/16 00:04	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		08/27/16 12:54	09/01/16 00:04	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/27/16 12:54	09/01/16 00:04	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/27/16 12:54	09/01/16 00:04	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-PAB-03-082216
Date Collected: 08/22/16 13:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/27/16 12:54	08/31/16 21:30	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/27/16 12:54	08/31/16 21:30	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 12:54	08/31/16 21:30	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/27/16 12:54	08/31/16 21:30	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/27/16 12:54	08/31/16 21:30	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/27/16 12:54	08/31/16 21:30	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 21:30	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/27/16 12:54	08/31/16 21:30	1
2,4,6-Trichlorophenol	0.53	U *	10	0.53	ug/L		08/27/16 12:54	08/31/16 21:30	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/27/16 12:54	08/31/16 21:30	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/27/16 12:54	08/31/16 21:30	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/27/16 12:54	08/31/16 21:30	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/27/16 12:54	08/31/16 21:30	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/27/16 12:54	08/31/16 21:30	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/27/16 12:54	08/31/16 21:30	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/27/16 12:54	08/31/16 21:30	1
Isophorone	0.67	U	10	0.67	ug/L		08/27/16 12:54	08/31/16 21:30	1
Naphthalene	0.80	U	10	0.80	ug/L		08/27/16 12:54	08/31/16 21:30	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/27/16 12:54	08/31/16 21:30	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/27/16 12:54	08/31/16 21:30	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/27/16 12:54	08/31/16 21:30	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 21:30	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 21:30	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/27/16 12:54	08/31/16 21:30	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/27/16 12:54	08/31/16 21:30	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/27/16 12:54	08/31/16 21:30	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/27/16 12:54	08/31/16 21:30	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/27/16 12:54	08/31/16 21:30	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/27/16 12:54	08/31/16 21:30	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 21:30	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/27/16 12:54	08/31/16 21:30	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 21:30	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/27/16 12:54	08/31/16 21:30	1
Fluorene	0.80	U	10	0.80	ug/L		08/27/16 12:54	08/31/16 21:30	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/27/16 12:54	08/31/16 21:30	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/27/16 12:54	08/31/16 21:30	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 21:30	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/27/16 12:54	08/31/16 21:30	1
Anthracene	0.57	U	10	0.57	ug/L		08/27/16 12:54	08/31/16 21:30	1
Carbazole	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 21:30	1
Di-n-butyl phthalate	**1.9**	**J B**	10	0.82	ug/L		08/27/16 12:54	08/31/16 21:30	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 21:30	1
Pyrene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 21:30	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/27/16 12:54	08/31/16 21:30	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/27/16 12:54	08/31/16 21:30	1
Bis(2-ethylhexyl) phthalate	**1.9**	**J**	2.0	0.72	ug/L		08/27/16 12:54	08/31/16 21:30	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/27/16 12:54	08/31/16 21:30	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/27/16 12:54	08/31/16 21:30	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/27/16 12:54	08/31/16 21:30	1

Client Sample ID: SW-PAB-03-082216
Date Collected: 08/22/16 13:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 21:30	1
Acetophenone	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 21:30	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/27/16 12:54	08/31/16 21:30	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 12:54	08/31/16 21:30	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/27/16 12:54	08/31/16 21:30	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/27/16 12:54	08/31/16 21:30	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/27/16 12:54	08/31/16 21:30	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/27/16 12:54	08/31/16 21:30	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 21:30	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/27/16 12:54	08/31/16 21:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*84*		*30 - 130*	*08/27/16 12:54*	*08/31/16 21:30*	*1*
Phenol-d5 (Surr)	*28*		*15 - 110*	*08/27/16 12:54*	*08/31/16 21:30*	*1*
Terphenyl-d14 (Surr)	*109*		*30 - 130*	*08/27/16 12:54*	*08/31/16 21:30*	*1*
2,4,6-Tribromophenol (Surr)	*95*		*15 - 110*	*08/27/16 12:54*	*08/31/16 21:30*	*1*
2-Fluorophenol (Surr)	*50*		*15 - 110*	*08/27/16 12:54*	*08/31/16 21:30*	*1*
2-Fluorobiphenyl	*92*		*30 - 130*	*08/27/16 12:54*	*08/31/16 21:30*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 15:33	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 15:33	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 15:33	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 15:33	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 15:33	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 15:33	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 15:33	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 15:33	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 15:33	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 15:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*113*		*30 - 150*	*08/25/16 08:37*	*08/26/16 15:33*	*1*
Tetrachloro-m-xylene	*117*		*30 - 150*	*08/25/16 08:37*	*08/26/16 15:33*	*1*
DCB Decachlorobiphenyl	*121*		*30 - 150*	*08/25/16 08:37*	*08/26/16 15:33*	*1*
DCB Decachlorobiphenyl	*122*		*30 - 150*	*08/25/16 08:37*	*08/26/16 15:33*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**0.80**		0.60	0.11	mg/L			08/29/16 22:15	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.19**	**D**	0.24	0.060	mg/L			08/30/16 14:04	2

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:53	2
Arsenic	**0.86**	**J**	2.0	0.71	ug/L		08/29/16 07:58	09/02/16 04:53	2
Barium	**113**		4.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:53	2

Client Sample ID: SW-PAB-03-082216
Date Collected: 08/22/16 13:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-4
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/02/16 04:53	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 07:58	09/02/16 04:53	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:53	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:53	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 04:53	2
Manganese	**3200**		8.0	3.0	ug/L		08/29/16 07:58	09/02/16 04:53	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 04:53	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 07:58	09/02/16 04:53	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/02/16 04:53	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 07:58	09/02/16 04:53	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 07:58	09/02/16 04:53	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 07:58	09/02/16 04:53	2
Aluminum	**43.6**		40.0	13.5	ug/L		08/29/16 07:58	09/02/16 04:53	2
Sodium	**6680**		200	87.6	ug/L		08/29/16 07:58	09/02/16 04:53	2
Magnesium	**5390**		200	68.4	ug/L		08/29/16 07:58	09/02/16 04:53	2
Potassium	**637**		200	74.8	ug/L		08/29/16 07:58	09/02/16 04:53	2
Calcium	**31100**		200	69.5	ug/L		08/29/16 07:58	09/02/16 04:53	2
Iron	**12700**		120	49.1	ug/L		08/29/16 07:58	09/02/16 04:53	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/02/16 04:53	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	08/30/16 22:42	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/30/16 09:54	08/30/16 22:42	2
Barium	**100**		4.0	1.5	ug/L		08/30/16 09:54	08/30/16 22:42	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	08/30/16 22:42	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	08/30/16 22:42	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 22:42	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 22:42	2
Copper	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 22:42	2
Manganese	**3360**		8.0	3.0	ug/L		08/30/16 09:54	08/30/16 22:42	2
Nickel	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 22:42	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	08/30/16 22:42	2
Antimony	0.76	U	2.0	0.76	ug/L		08/30/16 09:54	08/30/16 22:42	2
Selenium	0.79	U	10.0	0.79	ug/L		08/30/16 09:54	08/30/16 22:42	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/30/16 09:54	08/30/16 22:42	2
Zinc	6.5	U	16.0	6.5	ug/L		08/30/16 09:54	08/30/16 22:42	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/30/16 09:54	08/30/16 22:42	2
Sodium	**6950**		200	87.6	ug/L		08/30/16 09:54	08/30/16 22:42	2
Magnesium	**5260**		200	68.4	ug/L		08/30/16 09:54	08/30/16 22:42	2
Potassium	**658**		200	74.8	ug/L		08/30/16 09:54	09/01/16 15:26	2
Calcium	**31400**		200	69.5	ug/L		08/30/16 09:54	08/30/16 22:42	2
Iron	**61.4**	**J**	120	49.1	ug/L		08/30/16 09:54	08/30/16 22:42	2
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	08/30/16 22:42	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 11:58	08/26/16 13:47	1

Client Sample ID: SW-PAB-03-082216

Lab Sample ID: 460-119025-4

Date Collected: 08/22/16 13:00

Matrix: Water

Date Received: 08/23/16 11:45

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 16:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/02/16 14:43	09/02/16 17:38	1
Bicarbonate Alkalinity as CaCO3	**105**		5.0	5.0	mg/L			09/02/16 17:48	1
Alkalinity	**105**		5.0	5.0	mg/L			09/02/16 17:48	1

Client Sample ID: SW-PMB-02-082216

Lab Sample ID: 460-119025-5

Date Collected: 08/22/16 17:45

Matrix: Water

Date Received: 08/23/16 11:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	**0.0091**	**J**	0.020	0.0070	ug/L			08/26/16 12:55	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 12:55	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 12:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*08/26/16 12:55*	*1*
4-Bromofluorobenzene	*108*		*70 - 130*		*08/26/16 12:55*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 03:14	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 03:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 03:14	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 03:14	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 03:14	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 03:14	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 03:14	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 03:14	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 03:14	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 03:14	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 03:14	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 03:14	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 03:14	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 03:14	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 03:14	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 03:14	1
Acetone	**4.2**	**J**	5.0	1.1	ug/L			08/25/16 03:14	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 03:14	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 03:14	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 03:14	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 03:14	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 03:14	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 03:14	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 03:14	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 03:14	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 03:14	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-PMB-02-082216
Date Collected: 08/22/16 17:45
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 03:14	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 03:14	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 03:14	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 03:14	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 03:14	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 03:14	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 03:14	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 03:14	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 03:14	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 03:14	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 03:14	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 03:14	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 03:14	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 03:14	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 03:14	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 03:14	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 03:14	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 03:14	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 03:14	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 03:14	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 03:14	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 03:14	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 03:14*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*08/25/16 03:14*	*1*
4-Bromofluorobenzene	*94*		*70 - 130*		*08/25/16 03:14*	*1*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*08/25/16 03:14*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/25/16 03:14*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.042	U	0.057	0.042	ug/L		08/27/16 12:54	09/01/16 00:33	1
Benzo[a]pyrene	0.030	U	0.057	0.030	ug/L		08/27/16 12:54	09/01/16 00:33	1
Benzo[b]fluoranthene	0.014	U	0.057	0.014	ug/L		08/27/16 12:54	09/01/16 00:33	1
Bis(2-chloroethyl)ether	0.010	U	0.023	0.010	ug/L		08/27/16 12:54	09/01/16 00:33	1
Dibenz(a,h)anthracene	0.025	U	0.057	0.025	ug/L		08/27/16 12:54	09/01/16 00:33	1
Hexachlorobenzene	0.010	U	0.023	0.010	ug/L		08/27/16 12:54	09/01/16 00:33	1
Indeno[1,2,3-cd]pyrene	0.031	U	0.057	0.031	ug/L		08/27/16 12:54	09/01/16 00:33	1
Pentachlorophenol	0.088	U	0.23	0.088	ug/L		08/27/16 12:54	09/01/16 00:33	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.47	U	11	0.47	ug/L		08/27/16 12:54	08/31/16 21:49	1
2-Chlorophenol	0.84	U	11	0.84	ug/L		08/27/16 12:54	08/31/16 21:49	1
2-Methylphenol	1.5	U *	11	1.5	ug/L		08/27/16 12:54	08/31/16 21:49	1
4-Methylphenol	0.99	U	11	0.99	ug/L		08/27/16 12:54	08/31/16 21:49	1
2-Nitrophenol	0.67	U	11	0.67	ug/L		08/27/16 12:54	08/31/16 21:49	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-PMB-02-082216
Date Collected: 08/22/16 17:45
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	1.0	U	11	1.0	ug/L		08/27/16 12:54	08/31/16 21:49	1
2,4-Dichlorophenol	0.72	U	11	0.72	ug/L		08/27/16 12:54	08/31/16 21:49	1
4-Chloro-3-methylphenol	0.86	U	11	0.86	ug/L		08/27/16 12:54	08/31/16 21:49	1
2,4,6-Trichlorophenol	0.60	U *	11	0.60	ug/L		08/27/16 12:54	08/31/16 21:49	1
2,4,5-Trichlorophenol	0.56	U	11	0.56	ug/L		08/27/16 12:54	08/31/16 21:49	1
2,4-Dinitrotoluene	1.2	U	2.3	1.2	ug/L		08/27/16 12:54	08/31/16 21:49	1
4-Nitrophenol	5.3	U	23	5.3	ug/L		08/27/16 12:54	08/31/16 21:49	1
4,6-Dinitro-2-methylphenol	2.3	U	23	2.3	ug/L		08/27/16 12:54	08/31/16 21:49	1
N-Nitrosodi-n-propylamine	0.94	U	1.1	0.94	ug/L		08/27/16 12:54	08/31/16 21:49	1
Hexachloroethane	0.10	U	1.1	0.10	ug/L		08/27/16 12:54	08/31/16 21:49	1
Nitrobenzene	0.56	U	1.1	0.56	ug/L		08/27/16 12:54	08/31/16 21:49	1
Isophorone	0.76	U	11	0.76	ug/L		08/27/16 12:54	08/31/16 21:49	1
Naphthalene	0.91	U	11	0.91	ug/L		08/27/16 12:54	08/31/16 21:49	1
4-Chloroaniline	0.83	U	11	0.83	ug/L		08/27/16 12:54	08/31/16 21:49	1
Hexachlorobutadiene	0.86	U	1.1	0.86	ug/L		08/27/16 12:54	08/31/16 21:49	1
2-Methylnaphthalene	1.0	U	11	1.0	ug/L		08/27/16 12:54	08/31/16 21:49	1
Hexachlorocyclopentadiene	0.69	U	11	0.69	ug/L		08/27/16 12:54	08/31/16 21:49	1
2-Chloronaphthalene	0.69	U	11	0.69	ug/L		08/27/16 12:54	08/31/16 21:49	1
2-Nitroaniline	0.74	U	11	0.74	ug/L		08/27/16 12:54	08/31/16 21:49	1
Dimethyl phthalate	1.1	U	11	1.1	ug/L		08/27/16 12:54	08/31/16 21:49	1
Acenaphthylene	0.74	U	11	0.74	ug/L		08/27/16 12:54	08/31/16 21:49	1
2,6-Dinitrotoluene	1.0	U	2.3	1.0	ug/L		08/27/16 12:54	08/31/16 21:49	1
3-Nitroaniline	0.93	U	11	0.93	ug/L		08/27/16 12:54	08/31/16 21:49	1
Acenaphthene	1.0	U	11	1.0	ug/L		08/27/16 12:54	08/31/16 21:49	1
Dibenzofuran	0.97	U	11	0.97	ug/L		08/27/16 12:54	08/31/16 21:49	1
2,4-Dinitrophenol	2.7	U	23	2.7	ug/L		08/27/16 12:54	08/31/16 21:49	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/27/16 12:54	08/31/16 21:49	1
4-Chlorophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/27/16 12:54	08/31/16 21:49	1
Fluorene	0.91	U	11	0.91	ug/L		08/27/16 12:54	08/31/16 21:49	1
4-Nitroaniline	0.55	U	11	0.55	ug/L		08/27/16 12:54	08/31/16 21:49	1
N-Nitrosodiphenylamine	0.84	U	11	0.84	ug/L		08/27/16 12:54	08/31/16 21:49	1
4-Bromophenyl phenyl ether	1.2	U	11	1.2	ug/L		08/27/16 12:54	08/31/16 21:49	1
Phenanthrene	0.74	U	11	0.74	ug/L		08/27/16 12:54	08/31/16 21:49	1
Anthracene	0.65	U	11	0.65	ug/L		08/27/16 12:54	08/31/16 21:49	1
Carbazole	0.97	U	11	0.97	ug/L		08/27/16 12:54	08/31/16 21:49	1
Di-n-butyl phthalate	**2.0**	**J B**	11	0.93	ug/L		08/27/16 12:54	08/31/16 21:49	1
Fluoranthene	0.82	U	11	0.82	ug/L		08/27/16 12:54	08/31/16 21:49	1
Pyrene	0.94	U	11	0.94	ug/L		08/27/16 12:54	08/31/16 21:49	1
Butyl benzyl phthalate	0.68	U	11	0.68	ug/L		08/27/16 12:54	08/31/16 21:49	1
Chrysene	0.76	U	2.3	0.76	ug/L		08/27/16 12:54	08/31/16 21:49	1
Bis(2-ethylhexyl) phthalate	**2.2**	**J**	2.3	0.82	ug/L		08/27/16 12:54	08/31/16 21:49	1
Di-n-octyl phthalate	0.78	U	11	0.78	ug/L		08/27/16 12:54	08/31/16 21:49	1
Benzo[k]fluoranthene	0.20	U	1.1	0.20	ug/L		08/27/16 12:54	08/31/16 21:49	1
Benzo[g,h,i]perylene	0.85	U	11	0.85	ug/L		08/27/16 12:54	08/31/16 21:49	1
1,1'-Biphenyl	0.72	U	11	0.72	ug/L		08/27/16 12:54	08/31/16 21:49	1
Acetophenone	1.2	U	11	1.2	ug/L		08/27/16 12:54	08/31/16 21:49	1
Benzaldehyde	0.98	U	11	0.98	ug/L		08/27/16 12:54	08/31/16 21:49	1
Caprolactam	1.2	U *	11	1.2	ug/L		08/27/16 12:54	08/31/16 21:49	1
Atrazine	0.88	U	2.3	0.88	ug/L		08/27/16 12:54	08/31/16 21:49	1

Client Sample ID: SW-PMB-02-082216
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Lab Sample ID: 460-119025-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2'-oxybis[1-chloropropane]	1.1	U	11	1.1	ug/L		08/27/16 12:54	08/31/16 21:49	1
1,2,4,5-Tetrachlorobenzene	0.49	U	11	0.49	ug/L		08/27/16 12:54	08/31/16 21:49	1
2,3,4,6-Tetrachlorophenol	0.78	U	11	0.78	ug/L		08/27/16 12:54	08/31/16 21:49	1
3,3'-Dichlorobenzidine	1.2	U	11	1.2	ug/L		08/27/16 12:54	08/31/16 21:49	1
Bis(2-chloroethoxy)methane	0.78	U	11	0.78	ug/L		08/27/16 12:54	08/31/16 21:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*88*		*30 - 130*	*08/27/16 12:54*	*08/31/16 21:49*	*1*
Phenol-d5 (Surr)	*23*		*15 - 110*	*08/27/16 12:54*	*08/31/16 21:49*	*1*
Terphenyl-d14 (Surr)	*101*		*30 - 130*	*08/27/16 12:54*	*08/31/16 21:49*	*1*
2,4,6-Tribromophenol (Surr)	*98*		*15 - 110*	*08/27/16 12:54*	*08/31/16 21:49*	*1*
2-Fluorophenol (Surr)	*49*		*15 - 110*	*08/27/16 12:54*	*08/31/16 21:49*	*1*
2-Fluorobiphenyl	*85*		*30 - 130*	*08/27/16 12:54*	*08/31/16 21:49*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 15:48	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 15:48	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 15:48	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 15:48	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 15:48	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 15:48	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 15:48	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 15:48	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 15:48	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 15:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*110*		*30 - 150*	*08/25/16 08:37*	*08/26/16 15:48*	*1*
Tetrachloro-m-xylene	*111*		*30 - 150*	*08/25/16 08:37*	*08/26/16 15:48*	*1*
DCB Decachlorobiphenyl	*124*		*30 - 150*	*08/25/16 08:37*	*08/26/16 15:48*	*1*
DCB Decachlorobiphenyl	*121*		*30 - 150*	*08/25/16 08:37*	*08/26/16 15:48*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**6.74**		0.60	0.11	mg/L			08/29/16 22:33	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**85.4**	**D**	6.00	1.50	mg/L			08/30/16 14:22	50

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:59	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 07:58	09/02/16 04:59	2
Barium	**19.2**		4.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:59	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/02/16 04:59	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 07:58	09/02/16 04:59	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:59	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 04:59	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 04:59	2

Client Sample ID: SW-PMB-02-082216
Date Collected: 08/22/16 17:45
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Lab Sample ID: 460-119025-5
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**247**		8.0	3.0	ug/L		08/29/16 07:58	09/02/16 04:59	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 04:59	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 07:58	09/02/16 04:59	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/02/16 04:59	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 07:58	09/02/16 04:59	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 07:58	09/02/16 04:59	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 07:58	09/02/16 04:59	2
Aluminum	**72.9**		40.0	13.5	ug/L		08/29/16 07:58	09/02/16 04:59	2
Sodium	**44700**		200	87.6	ug/L		08/29/16 07:58	09/02/16 04:59	2
Magnesium	**11600**		200	68.4	ug/L		08/29/16 07:58	09/02/16 04:59	2
Potassium	**4630**		200	74.8	ug/L		08/29/16 07:58	09/02/16 04:59	2
Calcium	**43300**		200	69.5	ug/L		08/29/16 07:58	09/02/16 04:59	2
Iron	**692**		120	49.1	ug/L		08/29/16 07:58	09/02/16 04:59	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/02/16 04:59	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:05	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/30/16 09:54	08/30/16 23:05	2
Barium	**19.0**		4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:05	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	08/30/16 23:05	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	08/30/16 23:05	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:05	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:05	2
Copper	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:05	2
Manganese	**159**		8.0	3.0	ug/L		08/30/16 09:54	08/30/16 23:05	2
Nickel	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:05	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	08/30/16 23:05	2
Antimony	0.76	U	2.0	0.76	ug/L		08/30/16 09:54	08/30/16 23:05	2
Selenium	0.79	U	10.0	0.79	ug/L		08/30/16 09:54	08/30/16 23:05	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/30/16 09:54	08/30/16 23:05	2
Zinc	6.5	U	16.0	6.5	ug/L		08/30/16 09:54	08/30/16 23:05	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/30/16 09:54	08/30/16 23:05	2
Sodium	**49300**		200	87.6	ug/L		08/30/16 09:54	08/30/16 23:05	2
Magnesium	**13100**		200	68.4	ug/L		08/30/16 09:54	08/30/16 23:05	2
Potassium	**4820**		200	74.8	ug/L		08/30/16 09:54	09/01/16 15:48	2
Calcium	**46500**		200	69.5	ug/L		08/30/16 09:54	08/30/16 23:05	2
Iron	49.1	U	120	49.1	ug/L		08/30/16 09:54	08/30/16 23:05	2
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	08/30/16 23:05	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 11:58	08/26/16 14:02	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 16:15	1

Client Sample ID: SW-PMB-02-082216

Lab Sample ID: 460-119025-5

Date Collected: 08/22/16 17:45

Matrix: Water

Date Received: 08/23/16 11:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/02/16 14:43	09/02/16 17:39	1
Bicarbonate Alkalinity as CaCO3	**147**		5.0	5.0	mg/L			09/02/16 17:48	1
Alkalinity	**147**		5.0	5.0	mg/L			09/02/16 17:48	1

Client Sample ID: SW-MRB-01-082216

Lab Sample ID: 460-119025-6

Date Collected: 08/22/16 16:00

Matrix: Water

Date Received: 08/23/16 11:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/27/16 17:45	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/27/16 17:45	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/27/16 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*08/27/16 17:45*	*1*
4-Bromofluorobenzene	*100*		*70 - 130*		*08/27/16 17:45*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 03:40	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 03:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 03:40	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 03:40	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 03:40	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 03:40	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 03:40	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 03:40	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 03:40	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 03:40	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 03:40	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 03:40	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 03:40	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 03:40	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 03:40	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 03:40	1
Acetone	**4.2**	**J**	5.0	1.1	ug/L			08/25/16 03:40	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 03:40	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 03:40	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 03:40	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 03:40	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 03:40	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 03:40	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 03:40	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 03:40	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 03:40	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 03:40	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 03:40	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 03:40	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 03:40	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-MRB-01-082216
Date Collected: 08/22/16 16:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 03:40	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 03:40	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 03:40	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 03:40	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 03:40	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 03:40	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 03:40	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 03:40	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 03:40	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 03:40	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 03:40	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 03:40	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 03:40	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 03:40	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 03:40	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 03:40	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 03:40	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 03:40	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 03:40*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*08/25/16 03:40*	*1*
4-Bromofluorobenzene	*94*		*70 - 130*		*08/25/16 03:40*	*1*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*08/25/16 03:40*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/25/16 03:40*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/27/16 12:54	09/01/16 01:01	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/27/16 12:54	09/01/16 01:01	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/27/16 12:54	09/01/16 01:01	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 01:01	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/27/16 12:54	09/01/16 01:01	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 01:01	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/27/16 12:54	09/01/16 01:01	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/27/16 12:54	09/01/16 01:01	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/27/16 12:54	08/31/16 22:09	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/27/16 12:54	08/31/16 22:09	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 12:54	08/31/16 22:09	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/27/16 12:54	08/31/16 22:09	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 22:09	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/27/16 12:54	08/31/16 22:09	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/27/16 12:54	08/31/16 22:09	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/27/16 12:54	08/31/16 22:09	1
2,4,6-Trichlorophenol	0.55	U *	10	0.55	ug/L		08/27/16 12:54	08/31/16 22:09	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-MRB-01-082216
Date Collected: 08/22/16 16:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/27/16 12:54	08/31/16 22:09	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/27/16 12:54	08/31/16 22:09	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/27/16 12:54	08/31/16 22:09	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/27/16 12:54	08/31/16 22:09	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/27/16 12:54	08/31/16 22:09	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/27/16 12:54	08/31/16 22:09	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/27/16 12:54	08/31/16 22:09	1
Isophorone	0.70	U	10	0.70	ug/L		08/27/16 12:54	08/31/16 22:09	1
Naphthalene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 22:09	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/27/16 12:54	08/31/16 22:09	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/27/16 12:54	08/31/16 22:09	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/27/16 12:54	08/31/16 22:09	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/27/16 12:54	08/31/16 22:09	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/27/16 12:54	08/31/16 22:09	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 22:09	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 22:09	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 22:09	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/27/16 12:54	08/31/16 22:09	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 22:09	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/27/16 12:54	08/31/16 22:09	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/27/16 12:54	08/31/16 22:09	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/27/16 12:54	08/31/16 22:09	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 22:09	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 22:09	1
Fluorene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 22:09	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/27/16 12:54	08/31/16 22:09	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/27/16 12:54	08/31/16 22:09	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 22:09	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 22:09	1
Anthracene	0.59	U	10	0.59	ug/L		08/27/16 12:54	08/31/16 22:09	1
Carbazole	0.89	U	10	0.89	ug/L		08/27/16 12:54	08/31/16 22:09	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 22:09	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/27/16 12:54	08/31/16 22:09	1
Pyrene	0.86	U	10	0.86	ug/L		08/27/16 12:54	08/31/16 22:09	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 22:09	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/27/16 12:54	08/31/16 22:09	1
Bis(2-ethylhexyl) phthalate	**1.1**	**J**	2.1	0.75	ug/L		08/27/16 12:54	08/31/16 22:09	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 22:09	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/27/16 12:54	08/31/16 22:09	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/27/16 12:54	08/31/16 22:09	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/27/16 12:54	08/31/16 22:09	1
Acetophenone	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 22:09	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/27/16 12:54	08/31/16 22:09	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 12:54	08/31/16 22:09	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/27/16 12:54	08/31/16 22:09	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/27/16 12:54	08/31/16 22:09	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/27/16 12:54	08/31/16 22:09	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 22:09	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 22:09	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-MRB-01-082216
Date Collected: 08/22/16 16:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*91*		*30 - 130*	*08/27/16 12:54*	*08/31/16 22:09*	*1*
Phenol-d5 (Surr)	*23*		*15 - 110*	*08/27/16 12:54*	*08/31/16 22:09*	*1*
Terphenyl-d14 (Surr)	*115*		*30 - 130*	*08/27/16 12:54*	*08/31/16 22:09*	*1*
2,4,6-Tribromophenol (Surr)	*99*		*15 - 110*	*08/27/16 12:54*	*08/31/16 22:09*	*1*
2-Fluorophenol (Surr)	*49*		*15 - 110*	*08/27/16 12:54*	*08/31/16 22:09*	*1*
2-Fluorobiphenyl	*85*		*30 - 130*	*08/27/16 12:54*	*08/31/16 22:09*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:03	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:03	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:03	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:03	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:03	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:03	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:03	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:03	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:03	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*110*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:03*	*1*
Tetrachloro-m-xylene	*116*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:03*	*1*
DCB Decachlorobiphenyl	*128*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:03*	*1*
DCB Decachlorobiphenyl	*131*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:03*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.83**		0.12	0.030	mg/L			08/29/16 22:52	1
Sulfate	**4.97**		0.60	0.11	mg/L			08/29/16 22:52	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:05	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 07:58	09/02/16 05:05	2
Barium	**11.4**		4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:05	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/02/16 05:05	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 07:58	09/02/16 05:05	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:05	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:05	2
Copper	**2.1**	**J**	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 05:05	2
Manganese	**78.3**		8.0	3.0	ug/L		08/29/16 07:58	09/02/16 05:05	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 05:05	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 07:58	09/02/16 05:05	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/02/16 05:05	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 07:58	09/02/16 05:05	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 07:58	09/02/16 05:05	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 07:58	09/02/16 05:05	2

Client Sample ID: SW-MRB-01-082216
Date Collected: 08/22/16 16:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-6
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**121**		40.0	13.5	ug/L		08/29/16 07:58	09/02/16 05:05	2
Sodium	**2520**		200	87.6	ug/L		08/29/16 07:58	09/02/16 05:05	2
Magnesium	**1610**		200	68.4	ug/L		08/29/16 07:58	09/02/16 05:05	2
Potassium	**532**		200	74.8	ug/L		08/29/16 07:58	09/02/16 05:05	2
Calcium	**4450**		200	69.5	ug/L		08/29/16 07:58	09/02/16 05:05	2
Iron	**502**		120	49.1	ug/L		08/29/16 07:58	09/02/16 05:05	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/02/16 05:05	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:10	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/30/16 09:54	08/30/16 23:10	2
Barium	**10.4**		4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:10	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	08/30/16 23:10	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	08/30/16 23:10	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:10	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:10	2
Copper	**1.6**	**J**	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:10	2
Manganese	**4.1**	**J**	8.0	3.0	ug/L		08/30/16 09:54	08/30/16 23:10	2
Nickel	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:10	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	08/30/16 23:10	2
Antimony	0.76	U	2.0	0.76	ug/L		08/30/16 09:54	08/30/16 23:10	2
Selenium	0.79	U	10.0	0.79	ug/L		08/30/16 09:54	08/30/16 23:10	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/30/16 09:54	08/30/16 23:10	2
Zinc	6.5	U	16.0	6.5	ug/L		08/30/16 09:54	08/30/16 23:10	2
Aluminum	**15.2**	**J**	40.0	13.5	ug/L		08/30/16 09:54	08/30/16 23:10	2
Sodium	**2410**		200	87.6	ug/L		08/30/16 09:54	08/30/16 23:10	2
Magnesium	**1560**		200	68.4	ug/L		08/30/16 09:54	08/30/16 23:10	2
Potassium	**503**		200	74.8	ug/L		08/30/16 09:54	09/01/16 15:54	2
Calcium	**4500**		200	69.5	ug/L		08/30/16 09:54	08/30/16 23:10	2
Iron	**112**	**J**	120	49.1	ug/L		08/30/16 09:54	08/30/16 23:10	2
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	08/30/16 23:10	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 11:58	08/26/16 14:04	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 16:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/02/16 14:43	09/02/16 17:40	1
Bicarbonate Alkalinity as CaCO3	**24.1**		5.0	5.0	mg/L			09/02/16 17:48	1
Alkalinity	**24.1**		5.0	5.0	mg/L			09/02/16 17:48	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-NOB-01-082216
Date Collected: 08/22/16 10:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-7
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/26/16 13:45	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 13:45	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 13:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/26/16 13:45*	*1*
4-Bromofluorobenzene	*110*		*70 - 130*		*08/26/16 13:45*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 04:06	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 04:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 04:06	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 04:06	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 04:06	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 04:06	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 04:06	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 04:06	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 04:06	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 04:06	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 04:06	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 04:06	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 04:06	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 04:06	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 04:06	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 04:06	1
Acetone	**5.5**		5.0	1.1	ug/L			08/25/16 04:06	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 04:06	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 04:06	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 04:06	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 04:06	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 04:06	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 04:06	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 04:06	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 04:06	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 04:06	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 04:06	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 04:06	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 04:06	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 04:06	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 04:06	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 04:06	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 04:06	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 04:06	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 04:06	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 04:06	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 04:06	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 04:06	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 04:06	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 04:06	1

Client Sample ID: SW-NOB-01-082216
Date Collected: 08/22/16 10:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 04:06	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 04:06	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 04:06	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 04:06	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 04:06	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 04:06	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 04:06	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 04:06	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 04:06*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*08/25/16 04:06*	*1*
4-Bromofluorobenzene	*97*		*70 - 130*		*08/25/16 04:06*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*08/25/16 04:06*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/25/16 04:06*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/27/16 12:54	09/01/16 01:30	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/27/16 12:54	09/01/16 01:30	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/27/16 12:54	09/01/16 01:30	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 01:30	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/27/16 12:54	09/01/16 01:30	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 01:30	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/27/16 12:54	09/01/16 01:30	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/27/16 12:54	09/01/16 01:30	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/27/16 12:54	08/31/16 22:28	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/27/16 12:54	08/31/16 22:28	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 12:54	08/31/16 22:28	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/27/16 12:54	08/31/16 22:28	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 22:28	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/27/16 12:54	08/31/16 22:28	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/27/16 12:54	08/31/16 22:28	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/27/16 12:54	08/31/16 22:28	1
2,4,6-Trichlorophenol	0.55	U *	10	0.55	ug/L		08/27/16 12:54	08/31/16 22:28	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/27/16 12:54	08/31/16 22:28	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/27/16 12:54	08/31/16 22:28	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/27/16 12:54	08/31/16 22:28	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/27/16 12:54	08/31/16 22:28	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/27/16 12:54	08/31/16 22:28	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/27/16 12:54	08/31/16 22:28	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/27/16 12:54	08/31/16 22:28	1
Isophorone	0.70	U	10	0.70	ug/L		08/27/16 12:54	08/31/16 22:28	1
Naphthalene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 22:28	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/27/16 12:54	08/31/16 22:28	1

Client Sample ID: SW-NOB-01-082216
Date Collected: 08/22/16 10:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/27/16 12:54	08/31/16 22:28	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/27/16 12:54	08/31/16 22:28	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/27/16 12:54	08/31/16 22:28	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/27/16 12:54	08/31/16 22:28	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 22:28	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 22:28	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 22:28	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/27/16 12:54	08/31/16 22:28	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 22:28	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/27/16 12:54	08/31/16 22:28	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/27/16 12:54	08/31/16 22:28	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/27/16 12:54	08/31/16 22:28	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 22:28	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 22:28	1
Fluorene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 22:28	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/27/16 12:54	08/31/16 22:28	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/27/16 12:54	08/31/16 22:28	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 22:28	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 22:28	1
Anthracene	0.59	U	10	0.59	ug/L		08/27/16 12:54	08/31/16 22:28	1
Carbazole	0.89	U	10	0.89	ug/L		08/27/16 12:54	08/31/16 22:28	1
Di-n-butyl phthalate	**2.2**	**J B**	10	0.85	ug/L		08/27/16 12:54	08/31/16 22:28	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/27/16 12:54	08/31/16 22:28	1
Pyrene	0.86	U	10	0.86	ug/L		08/27/16 12:54	08/31/16 22:28	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 22:28	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/27/16 12:54	08/31/16 22:28	1
Bis(2-ethylhexyl) phthalate	**2.3**		2.1	0.75	ug/L		08/27/16 12:54	08/31/16 22:28	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 22:28	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/27/16 12:54	08/31/16 22:28	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/27/16 12:54	08/31/16 22:28	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/27/16 12:54	08/31/16 22:28	1
Acetophenone	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 22:28	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/27/16 12:54	08/31/16 22:28	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 12:54	08/31/16 22:28	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/27/16 12:54	08/31/16 22:28	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/27/16 12:54	08/31/16 22:28	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/27/16 12:54	08/31/16 22:28	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 22:28	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 22:28	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*90*		*30 - 130*	*08/27/16 12:54*	*08/31/16 22:28*	*1*
Phenol-d5 (Surr)	*23*		*15 - 110*	*08/27/16 12:54*	*08/31/16 22:28*	*1*
Terphenyl-d14 (Surr)	*106*		*30 - 130*	*08/27/16 12:54*	*08/31/16 22:28*	*1*
2,4,6-Tribromophenol (Surr)	*99*		*15 - 110*	*08/27/16 12:54*	*08/31/16 22:28*	*1*
2-Fluorophenol (Surr)	*49*		*15 - 110*	*08/27/16 12:54*	*08/31/16 22:28*	*1*
2-Fluorobiphenyl	*80*		*30 - 130*	*08/27/16 12:54*	*08/31/16 22:28*	*1*

Client Sample ID: SW-NOB-01-082216
Date Collected: 08/22/16 10:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-7
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:18	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:18	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:18	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:18	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:18	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:18	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:18	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:18	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:18	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*95*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:18*	*1*
Tetrachloro-m-xylene	*104*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:18*	*1*
DCB Decachlorobiphenyl	*99*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:18*	*1*
DCB Decachlorobiphenyl	*104*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:18*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.65**		0.12	0.030	mg/L			08/29/16 23:10	1
Sulfate	**5.05**		0.60	0.11	mg/L			08/29/16 23:10	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:11	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 07:58	09/02/16 05:11	2
Barium	**14.6**		4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:11	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/02/16 05:11	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 07:58	09/02/16 05:11	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:11	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:11	2
Copper	**1.9**	**J**	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 05:11	2
Manganese	**44.9**		8.0	3.0	ug/L		08/29/16 07:58	09/02/16 05:11	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 05:11	2
Lead	**0.67**	**J**	1.2	0.44	ug/L		08/29/16 07:58	09/02/16 05:11	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/02/16 05:11	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 07:58	09/02/16 05:11	2
Vanadium	**1.7**	**J**	4.0	1.4	ug/L		08/29/16 07:58	09/02/16 05:11	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 07:58	09/02/16 05:11	2
Aluminum	**247**		40.0	13.5	ug/L		08/29/16 07:58	09/02/16 05:11	2
Sodium	**2580**		200	87.6	ug/L		08/29/16 07:58	09/02/16 05:11	2
Magnesium	**3130**		200	68.4	ug/L		08/29/16 07:58	09/02/16 05:11	2
Potassium	**749**		200	74.8	ug/L		08/29/16 07:58	09/02/16 05:11	2
Calcium	**8800**		200	69.5	ug/L		08/29/16 07:58	09/02/16 05:11	2
Iron	**536**		120	49.1	ug/L		08/29/16 07:58	09/02/16 05:11	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/02/16 05:11	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:16	2

Client Sample ID: SW-NOB-01-082216

Lab Sample ID: 460-119025-7

Date Collected: 08/22/16 10:00

Matrix: Water

Date Received: 08/23/16 11:45

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.71	U	2.0	0.71	ug/L		08/30/16 09:54	08/30/16 23:16	2
Barium	**13.6**		4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:16	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	08/30/16 23:16	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	08/30/16 23:16	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:16	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:16	2
Copper	**1.6**	**J**	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:16	2
Manganese	**15.9**		8.0	3.0	ug/L		08/30/16 09:54	08/30/16 23:16	2
Nickel	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:16	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	08/30/16 23:16	2
Antimony	0.76	U	2.0	0.76	ug/L		08/30/16 09:54	08/30/16 23:16	2
Selenium	0.79	U	10.0	0.79	ug/L		08/30/16 09:54	08/30/16 23:16	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/30/16 09:54	08/30/16 23:16	2
Zinc	6.5	U	16.0	6.5	ug/L		08/30/16 09:54	08/30/16 23:16	2
Aluminum	**70.6**		40.0	13.5	ug/L		08/30/16 09:54	08/30/16 23:16	2
Sodium	**2520**		200	87.6	ug/L		08/30/16 09:54	08/30/16 23:16	2
Magnesium	**3110**		200	68.4	ug/L		08/30/16 09:54	08/30/16 23:16	2
Potassium	**713**		200	74.8	ug/L		08/30/16 09:54	09/01/16 15:59	2
Calcium	**8830**		200	69.5	ug/L		08/30/16 09:54	08/30/16 23:16	2
Iron	**201**		120	49.1	ug/L		08/30/16 09:54	08/30/16 23:16	2
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	08/30/16 23:16	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 11:58	08/26/16 14:06	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 16:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/02/16 14:43	09/02/16 17:41	1
Bicarbonate Alkalinity as CaCO3	**30.2**		5.0	5.0	mg/L			09/02/16 17:48	1
Alkalinity	**30.2**		5.0	5.0	mg/L			09/02/16 17:48	1

Client Sample ID: RW-12(55-65)-082216

Lab Sample ID: 460-119025-8

Date Collected: 08/22/16 16:10

Matrix: Water

Date Received: 08/23/16 11:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/26/16 14:10	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 14:10	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*08/26/16 14:10*	*1*
4-Bromofluorobenzene	*106*		*70 - 130*		*08/26/16 14:10*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: RW-12(55-65)-082216
Date Collected: 08/22/16 16:10
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 04:32	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 04:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 04:32	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 04:32	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 04:32	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 04:32	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 04:32	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 04:32	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 04:32	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 04:32	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 04:32	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 04:32	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 04:32	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 04:32	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 04:32	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 04:32	1
Acetone	**12**		5.0	1.1	ug/L			08/25/16 04:32	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 04:32	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 04:32	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 04:32	1
Carbon disulfide	**1.1**		1.0	0.22	ug/L			08/25/16 04:32	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 04:32	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 04:32	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 04:32	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 04:32	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 04:32	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 04:32	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 04:32	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 04:32	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 04:32	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 04:32	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 04:32	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 04:32	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 04:32	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 04:32	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 04:32	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 04:32	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 04:32	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 04:32	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 04:32	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 04:32	1
Toluene	**1.9**		1.0	0.25	ug/L			08/25/16 04:32	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 04:32	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 04:32	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 04:32	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 04:32	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 04:32	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 04:32	1

Client Sample ID: RW-12(55-65)-082216

Date Collected: 08/22/16 16:10
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-8

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/25/16 04:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		08/25/16 04:32	1
4-Bromofluorobenzene	93		70 - 130		08/25/16 04:32	1
Dibromofluoromethane (Surr)	93		70 - 130		08/25/16 04:32	1
Toluene-d8 (Surr)	97		70 - 130		08/25/16 04:32	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/27/16 12:54	09/01/16 01:58	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/27/16 12:54	09/01/16 01:58	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/27/16 12:54	09/01/16 01:58	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 01:58	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/27/16 12:54	09/01/16 01:58	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 01:58	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/27/16 12:54	09/01/16 01:58	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/27/16 12:54	09/01/16 01:58	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	**6.3**	**J**	10	0.43	ug/L		08/27/16 12:54	08/31/16 22:48	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/27/16 12:54	08/31/16 22:48	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 12:54	08/31/16 22:48	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/27/16 12:54	08/31/16 22:48	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 22:48	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/27/16 12:54	08/31/16 22:48	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/27/16 12:54	08/31/16 22:48	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/27/16 12:54	08/31/16 22:48	1
2,4,6-Trichlorophenol	0.55	U *	10	0.55	ug/L		08/27/16 12:54	08/31/16 22:48	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/27/16 12:54	08/31/16 22:48	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/27/16 12:54	08/31/16 22:48	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/27/16 12:54	08/31/16 22:48	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/27/16 12:54	08/31/16 22:48	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/27/16 12:54	08/31/16 22:48	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/27/16 12:54	08/31/16 22:48	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/27/16 12:54	08/31/16 22:48	1
Isophorone	**2.1**	**J**	10	0.70	ug/L		08/27/16 12:54	08/31/16 22:48	1
Naphthalene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 22:48	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/27/16 12:54	08/31/16 22:48	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/27/16 12:54	08/31/16 22:48	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/27/16 12:54	08/31/16 22:48	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/27/16 12:54	08/31/16 22:48	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/27/16 12:54	08/31/16 22:48	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 22:48	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 22:48	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 22:48	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/27/16 12:54	08/31/16 22:48	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 22:48	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/27/16 12:54	08/31/16 22:48	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/27/16 12:54	08/31/16 22:48	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: RW-12(55-65)-082216
Date Collected: 08/22/16 16:10
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/27/16 12:54	08/31/16 22:48	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 22:48	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 22:48	1
Fluorene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 22:48	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/27/16 12:54	08/31/16 22:48	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/27/16 12:54	08/31/16 22:48	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 22:48	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 22:48	1
Anthracene	0.59	U	10	0.59	ug/L		08/27/16 12:54	08/31/16 22:48	1
Carbazole	0.89	U	10	0.89	ug/L		08/27/16 12:54	08/31/16 22:48	1
Di-n-butyl phthalate	**1.9**	**J B**	10	0.85	ug/L		08/27/16 12:54	08/31/16 22:48	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/27/16 12:54	08/31/16 22:48	1
Pyrene	0.86	U	10	0.86	ug/L		08/27/16 12:54	08/31/16 22:48	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 22:48	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/27/16 12:54	08/31/16 22:48	1
Bis(2-ethylhexyl) phthalate	**2.2**		2.1	0.75	ug/L		08/27/16 12:54	08/31/16 22:48	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 22:48	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/27/16 12:54	08/31/16 22:48	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/27/16 12:54	08/31/16 22:48	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/27/16 12:54	08/31/16 22:48	1
Acetophenone	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 22:48	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/27/16 12:54	08/31/16 22:48	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 12:54	08/31/16 22:48	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/27/16 12:54	08/31/16 22:48	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/27/16 12:54	08/31/16 22:48	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/27/16 12:54	08/31/16 22:48	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 22:48	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 22:48	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 22:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*93*		*30 - 130*	*08/27/16 12:54*	*08/31/16 22:48*	*1*
Phenol-d5 (Surr)	*30*		*15 - 110*	*08/27/16 12:54*	*08/31/16 22:48*	*1*
Terphenyl-d14 (Surr)	*88*		*30 - 130*	*08/27/16 12:54*	*08/31/16 22:48*	*1*
2,4,6-Tribromophenol (Surr)	*96*		*15 - 110*	*08/27/16 12:54*	*08/31/16 22:48*	*1*
2-Fluorophenol (Surr)	*49*		*15 - 110*	*08/27/16 12:54*	*08/31/16 22:48*	*1*
2-Fluorobiphenyl	*93*		*30 - 130*	*08/27/16 12:54*	*08/31/16 22:48*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	**0.33**	**J**	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:33	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:33	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:33	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:33	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:33	1
PCB-1248	**0.33**	**J**	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:33	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:33	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:33	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:33	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:33	1

Client Sample ID: RW-12(55-65)-082216

Date Collected: 08/22/16 16:10
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-8

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*120*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:33*	*1*
Tetrachloro-m-xylene	*100*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:33*	*1*
DCB Decachlorobiphenyl	*121*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:33*	*1*
DCB Decachlorobiphenyl	*103*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:33*	*1*

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**51.1**	**D**	6.00	1.50	mg/L			08/30/16 14:40	50
Sulfate	**291**	**D**	30.0	5.25	mg/L			08/30/16 14:40	50

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:17	2
Arsenic	**12.0**		2.0	0.71	ug/L		08/29/16 07:58	09/02/16 05:17	2
Barium	**20.6**		4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:17	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/02/16 05:17	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 07:58	09/02/16 05:17	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:17	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:17	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 05:17	2
Manganese	3.0	U	8.0	3.0	ug/L		08/29/16 07:58	09/02/16 05:17	2
Nickel	**2.1**	**J**	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 05:17	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 07:58	09/02/16 05:17	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/02/16 05:17	2
Selenium	**6.3**	**J**	10.0	0.79	ug/L		08/29/16 07:58	09/02/16 05:17	2
Vanadium	**2.3**	**J**	4.0	1.4	ug/L		08/29/16 07:58	09/02/16 05:17	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 07:58	09/02/16 05:17	2
Aluminum	**156**		40.0	13.5	ug/L		08/29/16 07:58	09/02/16 05:17	2
Sodium	**128000**		200	87.6	ug/L		08/29/16 07:58	09/02/16 05:17	2
Magnesium	**484**		200	68.4	ug/L		08/29/16 07:58	09/02/16 05:17	2
Potassium	**23800**		200	74.8	ug/L		08/29/16 07:58	09/02/16 05:17	2
Calcium	**61800**		200	69.5	ug/L		08/29/16 07:58	09/02/16 05:17	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 07:58	09/02/16 05:17	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/02/16 05:17	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	08/30/16 15:02	2
Arsenic	**13.9**		2.0	0.71	ug/L		08/30/16 09:54	08/30/16 15:02	2
Barium	**22.1**		4.0	1.5	ug/L		08/30/16 09:54	08/30/16 15:02	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	08/30/16 15:02	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	08/30/16 15:02	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 15:02	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 15:02	2
Copper	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 15:02	2
Manganese	3.0	U	8.0	3.0	ug/L		08/30/16 09:54	08/30/16 15:02	2
Nickel	**1.7**	**J**	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 15:02	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	08/30/16 15:02	2
Antimony	0.76	U	2.0	0.76	ug/L		08/30/16 09:54	08/30/16 15:02	2
Selenium	**7.1**	**J**	10.0	0.79	ug/L		08/30/16 09:54	08/30/16 15:02	2
Vanadium	**2.0**	**J**	4.0	1.4	ug/L		08/30/16 09:54	08/30/16 15:02	2

Client Sample ID: RW-12(55-65)-082216
Lab Sample ID: 460-119025-8
Date Collected: 08/22/16 16:10
Matrix: Water
Date Received: 08/23/16 11:45

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	6.5	U	16.0	6.5	ug/L		08/30/16 09:54	08/30/16 15:02	2
Aluminum	**150**		40.0	13.5	ug/L		08/30/16 09:54	08/30/16 15:02	2
Sodium	**140000**		200	87.6	ug/L		08/30/16 09:54	08/30/16 15:02	2
Magnesium	**590**		200	68.4	ug/L		08/30/16 09:54	08/30/16 15:02	2
Potassium	**23600**		200	74.8	ug/L		08/30/16 09:54	09/01/16 14:58	2
Calcium	**64100**		200	69.5	ug/L		08/30/16 09:54	08/30/16 15:02	2
Iron	49.1	U	120	49.1	ug/L		08/30/16 09:54	08/30/16 15:02	2
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	08/30/16 15:02	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 11:58	08/26/16 14:08	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 16:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/02/16 14:43	09/02/16 17:42	1
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/02/16 17:48	1
Alkalinity	**98.5**		5.0	5.0	mg/L			09/02/16 17:48	1

Client Sample ID: RW-2(452-462)-082216
Lab Sample ID: 460-119025-9
Date Collected: 08/22/16 13:00
Matrix: Water
Date Received: 08/23/16 11:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/26/16 14:35	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 14:35	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*08/26/16 14:35*	*1*
4-Bromofluorobenzene	*110*		*70 - 130*		*08/26/16 14:35*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 04:58	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 04:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 04:58	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 04:58	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 04:58	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 04:58	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 04:58	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 04:58	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 04:58	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 04:58	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 04:58	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 04:58	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: RW-2(452-462)-082216
Date Collected: 08/22/16 13:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 04:58	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 04:58	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 04:58	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 04:58	1
Acetone	**16**		5.0	1.1	ug/L			08/25/16 04:58	1
Benzene	**0.20**	**J**	1.0	0.090	ug/L			08/25/16 04:58	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 04:58	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 04:58	1
Carbon disulfide	**0.70**	**J**	1.0	0.22	ug/L			08/25/16 04:58	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 04:58	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 04:58	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 04:58	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 04:58	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 04:58	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 04:58	1
Chloromethane	**0.32**	**J**	1.0	0.22	ug/L			08/25/16 04:58	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 04:58	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 04:58	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 04:58	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 04:58	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 04:58	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 04:58	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 04:58	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 04:58	1
Methyl tert-butyl ether	**0.32**	**J**	1.0	0.13	ug/L			08/25/16 04:58	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 04:58	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 04:58	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 04:58	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 04:58	1
Toluene	**0.69**	**J**	1.0	0.25	ug/L			08/25/16 04:58	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 04:58	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 04:58	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 04:58	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 04:58	1
Vinyl chloride	**0.20**	**J**	1.0	0.060	ug/L			08/25/16 04:58	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 04:58	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 04:58*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*08/25/16 04:58*	*1*
4-Bromofluorobenzene	*97*		*70 - 130*		*08/25/16 04:58*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*08/25/16 04:58*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*08/25/16 04:58*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/27/16 12:54	09/01/16 02:26	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/27/16 12:54	09/01/16 02:26	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: RW-2(452-462)-082216
Date Collected: 08/22/16 13:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-9
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/27/16 12:54	09/01/16 02:26	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 02:26	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/27/16 12:54	09/01/16 02:26	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 02:26	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/27/16 12:54	09/01/16 02:26	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/27/16 12:54	09/01/16 02:26	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	**11**		10	0.43	ug/L		08/27/16 12:54	08/31/16 23:08	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/27/16 12:54	08/31/16 23:08	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 12:54	08/31/16 23:08	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/27/16 12:54	08/31/16 23:08	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 23:08	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/27/16 12:54	08/31/16 23:08	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/27/16 12:54	08/31/16 23:08	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/27/16 12:54	08/31/16 23:08	1
2,4,6-Trichlorophenol	0.55	U *	10	0.55	ug/L		08/27/16 12:54	08/31/16 23:08	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/27/16 12:54	08/31/16 23:08	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/27/16 12:54	08/31/16 23:08	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/27/16 12:54	08/31/16 23:08	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/27/16 12:54	08/31/16 23:08	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/27/16 12:54	08/31/16 23:08	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/27/16 12:54	08/31/16 23:08	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/27/16 12:54	08/31/16 23:08	1
Isophorone	0.70	U	10	0.70	ug/L		08/27/16 12:54	08/31/16 23:08	1
Naphthalene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 23:08	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/27/16 12:54	08/31/16 23:08	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/27/16 12:54	08/31/16 23:08	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/27/16 12:54	08/31/16 23:08	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/27/16 12:54	08/31/16 23:08	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/27/16 12:54	08/31/16 23:08	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 23:08	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 23:08	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 23:08	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/27/16 12:54	08/31/16 23:08	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 23:08	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/27/16 12:54	08/31/16 23:08	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/27/16 12:54	08/31/16 23:08	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/27/16 12:54	08/31/16 23:08	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 23:08	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 23:08	1
Fluorene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 23:08	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/27/16 12:54	08/31/16 23:08	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/27/16 12:54	08/31/16 23:08	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 23:08	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 23:08	1
Anthracene	0.59	U	10	0.59	ug/L		08/27/16 12:54	08/31/16 23:08	1
Carbazole	0.89	U	10	0.89	ug/L		08/27/16 12:54	08/31/16 23:08	1
Di-n-butyl phthalate	**1.5**	**J B**	10	0.85	ug/L		08/27/16 12:54	08/31/16 23:08	1

Client Sample ID: RW-2(452-462)-082216
Date Collected: 08/22/16 13:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.75	U	10	0.75	ug/L		08/27/16 12:54	08/31/16 23:08	1
Pyrene	0.86	U	10	0.86	ug/L		08/27/16 12:54	08/31/16 23:08	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 23:08	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/27/16 12:54	08/31/16 23:08	1
Bis(2-ethylhexyl) phthalate	**1.5**	**J**	2.1	0.75	ug/L		08/27/16 12:54	08/31/16 23:08	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 23:08	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/27/16 12:54	08/31/16 23:08	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/27/16 12:54	08/31/16 23:08	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/27/16 12:54	08/31/16 23:08	1
Acetophenone	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 23:08	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/27/16 12:54	08/31/16 23:08	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 12:54	08/31/16 23:08	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/27/16 12:54	08/31/16 23:08	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/27/16 12:54	08/31/16 23:08	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/27/16 12:54	08/31/16 23:08	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 23:08	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 23:08	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 23:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*81*		*30 - 130*	*08/27/16 12:54*	*08/31/16 23:08*	*1*
Phenol-d5 (Surr)	*31*		*15 - 110*	*08/27/16 12:54*	*08/31/16 23:08*	*1*
Terphenyl-d14 (Surr)	*109*		*30 - 130*	*08/27/16 12:54*	*08/31/16 23:08*	*1*
2,4,6-Tribromophenol (Surr)	*101*		*15 - 110*	*08/27/16 12:54*	*08/31/16 23:08*	*1*
2-Fluorophenol (Surr)	*52*		*15 - 110*	*08/27/16 12:54*	*08/31/16 23:08*	*1*
2-Fluorobiphenyl	*82*		*30 - 130*	*08/27/16 12:54*	*08/31/16 23:08*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	**0.77**		0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:47	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:47	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:47	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:47	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:47	1
PCB-1248	**0.77**		0.40	0.098	ug/L		08/25/16 08:37	08/26/16 16:47	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:47	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:47	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:47	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*121*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:47*	*1*
Tetrachloro-m-xylene	*124*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:47*	*1*
DCB Decachlorobiphenyl	*137*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:47*	*1*
DCB Decachlorobiphenyl	*140*		*30 - 150*	*08/25/16 08:37*	*08/26/16 16:47*	*1*

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**636**	**D F1**	24.0	6.00	mg/L			09/02/16 09:46	200
Sulfate	**375**	**D F1**	120	21.0	mg/L			09/02/16 09:46	200

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: RW-2(452-462)-082216
Date Collected: 08/22/16 13:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-9
Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:28	2
Arsenic	**4.3**		2.0	0.71	ug/L		08/29/16 07:58	09/02/16 05:28	2
Barium	**53.5**		4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:28	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/02/16 05:28	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 07:58	09/02/16 05:28	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:28	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:28	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 05:28	2
Manganese	3.0	U	8.0	3.0	ug/L		08/29/16 07:58	09/02/16 05:28	2
Nickel	**6.6**		4.0	1.6	ug/L		08/29/16 07:58	09/02/16 05:28	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 07:58	09/02/16 05:28	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/02/16 05:28	2
Selenium	**3.1**	**J**	10.0	0.79	ug/L		08/29/16 07:58	09/02/16 05:28	2
Vanadium	**30.8**		4.0	1.4	ug/L		08/29/16 07:58	09/02/16 05:28	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 07:58	09/02/16 05:28	2
Aluminum	**114**		40.0	13.5	ug/L		08/29/16 07:58	09/02/16 05:28	2
Sodium	**297000**		200	87.6	ug/L		08/29/16 07:58	09/02/16 05:28	2
Magnesium	68.4	U	200	68.4	ug/L		08/29/16 07:58	09/02/16 05:28	2
Potassium	**97500**		200	74.8	ug/L		08/29/16 07:58	09/02/16 05:28	2
Calcium	**115000**		200	69.5	ug/L		08/29/16 07:58	09/02/16 05:28	2
Iron	**56.4**	**J**	120	49.1	ug/L		08/29/16 07:58	09/02/16 05:28	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/02/16 05:28	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:21	2
Arsenic	**4.8**		2.0	0.71	ug/L		08/30/16 09:54	08/30/16 23:21	2
Barium	**58.6**		4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:21	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	08/30/16 23:21	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	08/30/16 23:21	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:21	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:21	2
Copper	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:21	2
Manganese	3.0	U	8.0	3.0	ug/L		08/30/16 09:54	08/30/16 23:21	2
Nickel	**6.5**		4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:21	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	08/30/16 23:21	2
Antimony	0.76	U	2.0	0.76	ug/L		08/30/16 09:54	08/30/16 23:21	2
Selenium	**3.6**	**J**	10.0	0.79	ug/L		08/30/16 09:54	08/30/16 23:21	2
Vanadium	**31.3**		4.0	1.4	ug/L		08/30/16 09:54	08/30/16 23:21	2
Zinc	6.5	U	16.0	6.5	ug/L		08/30/16 09:54	08/30/16 23:21	2
Aluminum	**97.9**		40.0	13.5	ug/L		08/30/16 09:54	08/30/16 23:21	2
Sodium	**332000**		200	87.6	ug/L		08/30/16 09:54	08/30/16 23:21	2
Magnesium	68.4	U	200	68.4	ug/L		08/30/16 09:54	08/30/16 23:21	2
Potassium	**93500**		200	74.8	ug/L		08/30/16 09:54	09/01/16 16:05	2
Calcium	**122000**		200	69.5	ug/L		08/30/16 09:54	08/30/16 23:21	2
Iron	49.1	U	120	49.1	ug/L		08/30/16 09:54	08/30/16 23:21	2
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	08/30/16 23:21	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: RW-2(452-462)-082216

Lab Sample ID: 460-119025-9

Date Collected: 08/22/16 13:00

Matrix: Water

Date Received: 08/23/16 11:45

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 11:58	08/26/16 14:09	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 16:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/02/16 14:43	09/02/16 17:42	1
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/02/16 17:48	1
Alkalinity	**127**		5.0	5.0	mg/L			09/02/16 17:48	1

Client Sample ID: RW-2(279-289)-082216

Lab Sample ID: 460-119025-10

Date Collected: 08/22/16 11:05

Matrix: Water

Date Received: 08/23/16 11:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/26/16 15:00	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 15:00	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*08/26/16 15:00*	*1*
4-Bromofluorobenzene	*109*		*70 - 130*		*08/26/16 15:00*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 05:24	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 05:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 05:24	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 05:24	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 05:24	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 05:24	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 05:24	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 05:24	1
1,2-Dichlorobenzene	**0.39**	**J**	1.0	0.22	ug/L			08/25/16 05:24	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 05:24	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 05:24	1
1,3-Dichlorobenzene	**0.77**	**J**	1.0	0.33	ug/L			08/25/16 05:24	1
1,4-Dichlorobenzene	**1.5**		1.0	0.33	ug/L			08/25/16 05:24	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 05:24	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 05:24	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 05:24	1
Acetone	**13**		5.0	1.1	ug/L			08/25/16 05:24	1
Benzene	**0.34**	**J**	1.0	0.090	ug/L			08/25/16 05:24	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 05:24	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 05:24	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 05:24	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 05:24	1
Chlorobenzene	**12**		1.0	0.24	ug/L			08/25/16 05:24	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: RW-2(279-289)-082216
Date Collected: 08/22/16 11:05
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-10
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 05:24	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 05:24	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 05:24	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 05:24	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 05:24	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 05:24	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 05:24	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 05:24	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 05:24	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 05:24	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 05:24	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 05:24	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 05:24	1
Methyl tert-butyl ether	**0.25**	**J**	1.0	0.13	ug/L			08/25/16 05:24	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 05:24	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 05:24	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 05:24	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 05:24	1
Toluene	**0.42**	**J**	1.0	0.25	ug/L			08/25/16 05:24	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 05:24	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 05:24	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 05:24	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 05:24	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 05:24	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 05:24	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 05:24*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*08/25/16 05:24*	*1*
4-Bromofluorobenzene	*95*		*70 - 130*		*08/25/16 05:24*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*08/25/16 05:24*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*08/25/16 05:24*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/27/16 12:54	09/01/16 02:55	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/27/16 12:54	09/01/16 02:55	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/27/16 12:54	09/01/16 02:55	1
Bis(2-chloroethyl)ether	**0.033**		0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 02:55	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/27/16 12:54	09/01/16 02:55	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 02:55	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/27/16 12:54	09/01/16 02:55	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/27/16 12:54	09/01/16 02:55	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/27/16 12:54	08/31/16 23:27	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/27/16 12:54	08/31/16 23:27	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: RW-2(279-289)-082216
Date Collected: 08/22/16 11:05
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-10
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 12:54	08/31/16 23:27	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/27/16 12:54	08/31/16 23:27	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 23:27	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/27/16 12:54	08/31/16 23:27	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/27/16 12:54	08/31/16 23:27	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/27/16 12:54	08/31/16 23:27	1
2,4,6-Trichlorophenol	0.55	U *	10	0.55	ug/L		08/27/16 12:54	08/31/16 23:27	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/27/16 12:54	08/31/16 23:27	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/27/16 12:54	08/31/16 23:27	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/27/16 12:54	08/31/16 23:27	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/27/16 12:54	08/31/16 23:27	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/27/16 12:54	08/31/16 23:27	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/27/16 12:54	08/31/16 23:27	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/27/16 12:54	08/31/16 23:27	1
Isophorone	0.70	U	10	0.70	ug/L		08/27/16 12:54	08/31/16 23:27	1
Naphthalene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 23:27	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/27/16 12:54	08/31/16 23:27	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/27/16 12:54	08/31/16 23:27	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/27/16 12:54	08/31/16 23:27	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/27/16 12:54	08/31/16 23:27	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/27/16 12:54	08/31/16 23:27	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 23:27	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 23:27	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 23:27	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/27/16 12:54	08/31/16 23:27	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 23:27	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/27/16 12:54	08/31/16 23:27	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/27/16 12:54	08/31/16 23:27	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/27/16 12:54	08/31/16 23:27	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 23:27	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 23:27	1
Fluorene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 23:27	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/27/16 12:54	08/31/16 23:27	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/27/16 12:54	08/31/16 23:27	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 23:27	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 23:27	1
Anthracene	0.59	U	10	0.59	ug/L		08/27/16 12:54	08/31/16 23:27	1
Carbazole	0.89	U	10	0.89	ug/L		08/27/16 12:54	08/31/16 23:27	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 23:27	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/27/16 12:54	08/31/16 23:27	1
Pyrene	0.86	U	10	0.86	ug/L		08/27/16 12:54	08/31/16 23:27	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 23:27	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/27/16 12:54	08/31/16 23:27	1
Bis(2-ethylhexyl) phthalate	**1.9**	**J**	2.1	0.75	ug/L		08/27/16 12:54	08/31/16 23:27	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 23:27	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/27/16 12:54	08/31/16 23:27	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/27/16 12:54	08/31/16 23:27	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/27/16 12:54	08/31/16 23:27	1
Acetophenone	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 23:27	1

Client Sample ID: RW-2(279-289)-082216

Date Collected: 08/22/16 11:05
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-10

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	0.90	U	10	0.90	ug/L		08/27/16 12:54	08/31/16 23:27	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 12:54	08/31/16 23:27	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/27/16 12:54	08/31/16 23:27	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/27/16 12:54	08/31/16 23:27	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/27/16 12:54	08/31/16 23:27	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 23:27	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 23:27	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 23:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*90*		*30 - 130*	*08/27/16 12:54*	*08/31/16 23:27*	*1*
Phenol-d5 (Surr)	*28*		*15 - 110*	*08/27/16 12:54*	*08/31/16 23:27*	*1*
Terphenyl-d14 (Surr)	*109*		*30 - 130*	*08/27/16 12:54*	*08/31/16 23:27*	*1*
2,4,6-Tribromophenol (Surr)	*99*		*15 - 110*	*08/27/16 12:54*	*08/31/16 23:27*	*1*
2-Fluorophenol (Surr)	*58*		*15 - 110*	*08/27/16 12:54*	*08/31/16 23:27*	*1*
2-Fluorobiphenyl	*95*		*30 - 130*	*08/27/16 12:54*	*08/31/16 23:27*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:02	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:02	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:02	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:02	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:02	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:02	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:02	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:02	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:02	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*105*		*30 - 150*	*08/25/16 08:37*	*08/26/16 17:02*	*1*
Tetrachloro-m-xylene	*111*		*30 - 150*	*08/25/16 08:37*	*08/26/16 17:02*	*1*
DCB Decachlorobiphenyl	*124*		*30 - 150*	*08/25/16 08:37*	*08/26/16 17:02*	*1*
DCB Decachlorobiphenyl	*131*		*30 - 150*	*08/25/16 08:37*	*08/26/16 17:02*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**0.21**		0.12	0.030	mg/L			08/30/16 00:05	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/30/16 00:05	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:52	2
Arsenic	**1.7**	**J**	2.0	0.71	ug/L		08/29/16 07:58	09/02/16 05:52	2
Barium	**27.0**		4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:52	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/02/16 05:52	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 07:58	09/02/16 05:52	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:52	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:52	2
Copper	**2.2**	**J**	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 05:52	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: RW-2(279-289)-082216
Date Collected: 08/22/16 11:05
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-10
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	3.0	U	8.0	3.0	ug/L		08/29/16 07:58	09/02/16 05:52	2
Nickel	**3.3**	**J**	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 05:52	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 07:58	09/02/16 05:52	2
Antimony	**1.0**	**J**	2.0	0.76	ug/L		08/29/16 07:58	09/02/16 05:52	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 07:58	09/02/16 05:52	2
Vanadium	**15.2**		4.0	1.4	ug/L		08/29/16 07:58	09/02/16 05:52	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 07:58	09/02/16 05:52	2
Aluminum	**163**		40.0	13.5	ug/L		08/29/16 07:58	09/02/16 05:52	2
Sodium	**106000**		200	87.6	ug/L		08/29/16 07:58	09/02/16 05:52	2
Magnesium	68.4	U	200	68.4	ug/L		08/29/16 07:58	09/02/16 05:52	2
Potassium	**7860**		200	74.8	ug/L		08/29/16 07:58	09/02/16 05:52	2
Calcium	**116000**		200	69.5	ug/L		08/29/16 07:58	09/02/16 05:52	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 07:58	09/02/16 05:52	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/02/16 05:52	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:27	2
Arsenic	**1.9**	**J**	2.0	0.71	ug/L		08/30/16 09:54	08/30/16 23:27	2
Barium	**28.9**		4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:27	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	08/30/16 23:27	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	08/30/16 23:27	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:27	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:27	2
Copper	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:27	2
Manganese	3.0	U	8.0	3.0	ug/L		08/30/16 09:54	08/30/16 23:27	2
Nickel	**2.7**	**J**	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:27	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	08/30/16 23:27	2
Antimony	**0.86**	**J**	2.0	0.76	ug/L		08/30/16 09:54	08/30/16 23:27	2
Selenium	0.79	U	10.0	0.79	ug/L		08/30/16 09:54	08/30/16 23:27	2
Vanadium	**15.5**		4.0	1.4	ug/L		08/30/16 09:54	08/30/16 23:27	2
Zinc	6.5	U	16.0	6.5	ug/L		08/30/16 09:54	08/30/16 23:27	2
Aluminum	**172**		40.0	13.5	ug/L		08/30/16 09:54	08/30/16 23:27	2
Sodium	**116000**		200	87.6	ug/L		08/30/16 09:54	08/30/16 23:27	2
Magnesium	68.4	U	200	68.4	ug/L		08/30/16 09:54	08/30/16 23:27	2
Potassium	**7940**		200	74.8	ug/L		08/30/16 09:54	09/01/16 16:11	2
Calcium	**122000**		200	69.5	ug/L		08/30/16 09:54	08/30/16 23:27	2
Iron	49.1	U	120	49.1	ug/L		08/30/16 09:54	08/30/16 23:27	2
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	08/30/16 23:27	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 11:58	08/26/16 14:11	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 16:28	1

Client Sample ID: RW-2(279-289)-082216

Lab Sample ID: 460-119025-10

Date Collected: 08/22/16 11:05

Matrix: Water

Date Received: 08/23/16 11:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/02/16 14:43	09/02/16 17:43	1
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/02/16 17:48	1
Alkalinity	**94.5**		5.0	5.0	mg/L			09/02/16 17:48	1

Client Sample ID: CMP-160-082216

Lab Sample ID: 460-119025-11

Date Collected: 08/22/16 13:20

Matrix: Water

Date Received: 08/23/16 11:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/26/16 15:25	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 15:25	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 15:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*08/26/16 15:25*	*1*
4-Bromofluorobenzene	*118*		*70 - 130*		*08/26/16 15:25*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 05:49	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 05:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 05:49	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 05:49	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 05:49	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 05:49	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 05:49	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 05:49	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 05:49	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 05:49	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 05:49	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 05:49	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 05:49	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 05:49	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 05:49	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 05:49	1
Acetone	**6.4**		5.0	1.1	ug/L			08/25/16 05:49	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 05:49	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 05:49	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 05:49	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 05:49	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 05:49	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 05:49	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 05:49	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 05:49	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 05:49	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 05:49	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 05:49	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 05:49	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 05:49	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: CMP-160-082216
Date Collected: 08/22/16 13:20
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-11
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 05:49	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 05:49	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 05:49	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 05:49	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 05:49	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 05:49	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 05:49	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 05:49	1
Methylene Chloride	**0.80**	**J**	1.0	0.21	ug/L			08/25/16 05:49	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 05:49	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 05:49	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 05:49	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 05:49	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 05:49	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 05:49	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 05:49	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 05:49	1
Xylenes, Total	**0.65**	**J**	2.0	0.28	ug/L			08/25/16 05:49	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 05:49*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*08/25/16 05:49*	*1*
4-Bromofluorobenzene	*95*		*70 - 130*		*08/25/16 05:49*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*08/25/16 05:49*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*08/25/16 05:49*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/27/16 12:54	09/01/16 11:25	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/27/16 12:54	09/01/16 11:25	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/27/16 12:54	09/01/16 11:25	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 11:25	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/27/16 12:54	09/01/16 11:25	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 11:25	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/27/16 12:54	09/01/16 11:25	1
Pentachlorophenol	**0.11**	**J**	0.21	0.080	ug/L		08/27/16 12:54	09/01/16 11:25	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/27/16 12:54	08/31/16 23:47	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/27/16 12:54	08/31/16 23:47	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 12:54	08/31/16 23:47	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/27/16 12:54	08/31/16 23:47	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 23:47	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/27/16 12:54	08/31/16 23:47	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/27/16 12:54	08/31/16 23:47	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/27/16 12:54	08/31/16 23:47	1
2,4,6-Trichlorophenol	0.55	U *	10	0.55	ug/L		08/27/16 12:54	08/31/16 23:47	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: CMP-160-082216
Date Collected: 08/22/16 13:20
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/27/16 12:54	08/31/16 23:47	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/27/16 12:54	08/31/16 23:47	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/27/16 12:54	08/31/16 23:47	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/27/16 12:54	08/31/16 23:47	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/27/16 12:54	08/31/16 23:47	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/27/16 12:54	08/31/16 23:47	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/27/16 12:54	08/31/16 23:47	1
Isophorone	0.70	U	10	0.70	ug/L		08/27/16 12:54	08/31/16 23:47	1
Naphthalene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 23:47	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/27/16 12:54	08/31/16 23:47	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/27/16 12:54	08/31/16 23:47	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/27/16 12:54	08/31/16 23:47	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/27/16 12:54	08/31/16 23:47	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/27/16 12:54	08/31/16 23:47	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 23:47	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 23:47	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 23:47	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/27/16 12:54	08/31/16 23:47	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 23:47	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/27/16 12:54	08/31/16 23:47	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/27/16 12:54	08/31/16 23:47	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/27/16 12:54	08/31/16 23:47	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 23:47	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 23:47	1
Fluorene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 23:47	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/27/16 12:54	08/31/16 23:47	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/27/16 12:54	08/31/16 23:47	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 23:47	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/27/16 12:54	08/31/16 23:47	1
Anthracene	0.59	U	10	0.59	ug/L		08/27/16 12:54	08/31/16 23:47	1
Carbazole	0.89	U	10	0.89	ug/L		08/27/16 12:54	08/31/16 23:47	1
Di-n-butyl phthalate	**1.5**	**J B**	10	0.85	ug/L		08/27/16 12:54	08/31/16 23:47	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/27/16 12:54	08/31/16 23:47	1
Pyrene	0.86	U	10	0.86	ug/L		08/27/16 12:54	08/31/16 23:47	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 23:47	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/27/16 12:54	08/31/16 23:47	1
Bis(2-ethylhexyl) phthalate	**1.5**	**J**	2.1	0.75	ug/L		08/27/16 12:54	08/31/16 23:47	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 23:47	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/27/16 12:54	08/31/16 23:47	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/27/16 12:54	08/31/16 23:47	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/27/16 12:54	08/31/16 23:47	1
Acetophenone	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 23:47	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/27/16 12:54	08/31/16 23:47	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 12:54	08/31/16 23:47	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/27/16 12:54	08/31/16 23:47	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/27/16 12:54	08/31/16 23:47	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/27/16 12:54	08/31/16 23:47	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 23:47	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 23:47	1

Client Sample ID: CMP-160-082216
Date Collected: 08/22/16 13:20
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 23:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*95*		*30 - 130*	*08/27/16 12:54*	*08/31/16 23:47*	*1*
Phenol-d5 (Surr)	*23*		*15 - 110*	*08/27/16 12:54*	*08/31/16 23:47*	*1*
Terphenyl-d14 (Surr)	*100*		*30 - 130*	*08/27/16 12:54*	*08/31/16 23:47*	*1*
2,4,6-Tribromophenol (Surr)	*88*		*15 - 110*	*08/27/16 12:54*	*08/31/16 23:47*	*1*
2-Fluorophenol (Surr)	*48*		*15 - 110*	*08/27/16 12:54*	*08/31/16 23:47*	*1*
2-Fluorobiphenyl	*86*		*30 - 130*	*08/27/16 12:54*	*08/31/16 23:47*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:17	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:17	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:17	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:17	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:17	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:17	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:17	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:17	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:17	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*125*		*30 - 150*	*08/25/16 08:37*	*08/26/16 17:17*	*1*
Tetrachloro-m-xylene	*135*		*30 - 150*	*08/25/16 08:37*	*08/26/16 17:17*	*1*
DCB Decachlorobiphenyl	*125*		*30 - 150*	*08/25/16 08:37*	*08/26/16 17:17*	*1*
DCB Decachlorobiphenyl	*134*		*30 - 150*	*08/25/16 08:37*	*08/26/16 17:17*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**2.94**		0.60	0.11	mg/L			08/30/16 00:59	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**168**	**D**	12.0	3.00	mg/L			08/30/16 14:58	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:58	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 07:58	09/02/16 05:58	2
Barium	**52.3**		4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:58	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/02/16 05:58	2
Cadmium	**10.8**		2.0	0.72	ug/L		08/29/16 07:58	09/02/16 05:58	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:58	2
Chromium	**4.8**		4.0	1.5	ug/L		08/29/16 07:58	09/02/16 05:58	2
Copper	**6.5**		4.0	1.6	ug/L		08/29/16 07:58	09/02/16 05:58	2
Manganese	**453**		8.0	3.0	ug/L		08/29/16 07:58	09/02/16 05:58	2
Nickel	**2.2**	**J**	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 05:58	2
Lead	**163**		1.2	0.44	ug/L		08/29/16 07:58	09/02/16 05:58	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/02/16 05:58	2

Client Sample ID: CMP-160-082216

Date Collected: 08/22/16 13:20
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-11

Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 07:58	09/02/16 05:58	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 07:58	09/02/16 05:58	2
Zinc	**3010**		40.0	16.2	ug/L		08/29/16 07:58	09/07/16 12:46	5
Aluminum	**26.4**	**J**	40.0	13.5	ug/L		08/29/16 07:58	09/02/16 05:58	2
Sodium	**80400**		200	87.6	ug/L		08/29/16 07:58	09/02/16 05:58	2
Magnesium	**13600**		200	68.4	ug/L		08/29/16 07:58	09/02/16 05:58	2
Potassium	**2150**		200	74.8	ug/L		08/29/16 07:58	09/02/16 05:58	2
Calcium	**44900**		200	69.5	ug/L		08/29/16 07:58	09/02/16 05:58	2
Iron	**12900**		120	49.1	ug/L		08/29/16 07:58	09/02/16 05:58	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/02/16 05:58	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:33	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/30/16 09:54	08/30/16 23:33	2
Barium	**48.2**		4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:33	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	08/30/16 23:33	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	08/30/16 23:33	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:33	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:33	2
Copper	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:33	2
Manganese	**396**		8.0	3.0	ug/L		08/30/16 09:54	08/30/16 23:33	2
Nickel	**1.7**	**J**	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:33	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	08/30/16 23:33	2
Antimony	0.76	U	2.0	0.76	ug/L		08/30/16 09:54	08/30/16 23:33	2
Selenium	0.79	U	10.0	0.79	ug/L		08/30/16 09:54	08/30/16 23:33	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/30/16 09:54	08/30/16 23:33	2
Zinc	**402**		16.0	6.5	ug/L		08/30/16 09:54	08/30/16 23:33	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/30/16 09:54	08/30/16 23:33	2
Sodium	**87100**		200	87.6	ug/L		08/30/16 09:54	08/30/16 23:33	2
Magnesium	**15000**		200	68.4	ug/L		08/30/16 09:54	08/30/16 23:33	2
Potassium	**2090**		200	74.8	ug/L		08/30/16 09:54	09/01/16 16:16	2
Calcium	**47500**		200	69.5	ug/L		08/30/16 09:54	08/30/16 23:33	2
Iron	49.1	U	120	49.1	ug/L		08/30/16 09:54	08/30/16 23:33	2
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	08/30/16 23:33	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 11:58	08/26/16 14:13	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 16:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/02/16 14:43	09/02/16 17:46	1
Bicarbonate Alkalinity as CaCO3	**135**		5.0	5.0	mg/L			09/02/16 17:48	1
Alkalinity	**135**		5.0	5.0	mg/L			09/02/16 17:48	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: CMP-100-082216
Date Collected: 08/22/16 11:40
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-12
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/26/16 15:51	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 15:51	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/26/16 15:51*	*1*
4-Bromofluorobenzene	*122*		*70 - 130*		*08/26/16 15:51*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 06:15	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 06:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 06:15	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 06:15	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 06:15	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 06:15	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 06:15	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 06:15	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 06:15	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 06:15	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 06:15	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 06:15	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 06:15	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 06:15	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 06:15	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 06:15	1
Acetone	**5.6**		5.0	1.1	ug/L			08/25/16 06:15	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 06:15	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 06:15	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 06:15	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 06:15	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 06:15	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 06:15	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 06:15	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 06:15	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 06:15	1
Chloroform	**0.26**	**J**	1.0	0.22	ug/L			08/25/16 06:15	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 06:15	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 06:15	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 06:15	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 06:15	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 06:15	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 06:15	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 06:15	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 06:15	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 06:15	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 06:15	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 06:15	1
Methylene Chloride	**0.49**	**J**	1.0	0.21	ug/L			08/25/16 06:15	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 06:15	1

Client Sample ID: CMP-100-082216
Date Collected: 08/22/16 11:40
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 06:15	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 06:15	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 06:15	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 06:15	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 06:15	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 06:15	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 06:15	1
Xylenes, Total	**0.42**	**J**	2.0	0.28	ug/L			08/25/16 06:15	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 06:15*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*08/25/16 06:15*	*1*
4-Bromofluorobenzene	*95*		*70 - 130*		*08/25/16 06:15*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*08/25/16 06:15*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*08/25/16 06:15*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/27/16 12:54	09/01/16 11:54	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/27/16 12:54	09/01/16 11:54	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/27/16 12:54	09/01/16 11:54	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 11:54	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/27/16 12:54	09/01/16 11:54	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 11:54	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/27/16 12:54	09/01/16 11:54	1
Pentachlorophenol	**0.11**	**J**	0.21	0.080	ug/L		08/27/16 12:54	09/01/16 11:54	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/27/16 12:54	09/01/16 00:06	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/27/16 12:54	09/01/16 00:06	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 12:54	09/01/16 00:06	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/27/16 12:54	09/01/16 00:06	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/27/16 12:54	09/01/16 00:06	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/27/16 12:54	09/01/16 00:06	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/27/16 12:54	09/01/16 00:06	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/27/16 12:54	09/01/16 00:06	1
2,4,6-Trichlorophenol	0.55	U *	10	0.55	ug/L		08/27/16 12:54	09/01/16 00:06	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/27/16 12:54	09/01/16 00:06	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/27/16 12:54	09/01/16 00:06	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/27/16 12:54	09/01/16 00:06	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/27/16 12:54	09/01/16 00:06	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/27/16 12:54	09/01/16 00:06	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/27/16 12:54	09/01/16 00:06	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/27/16 12:54	09/01/16 00:06	1
Isophorone	0.70	U	10	0.70	ug/L		08/27/16 12:54	09/01/16 00:06	1
Naphthalene	0.83	U	10	0.83	ug/L		08/27/16 12:54	09/01/16 00:06	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/27/16 12:54	09/01/16 00:06	1

Client Sample ID: CMP-100-082216
Date Collected: 08/22/16 11:40
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-12
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/27/16 12:54	09/01/16 00:06	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/27/16 12:54	09/01/16 00:06	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/27/16 12:54	09/01/16 00:06	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/27/16 12:54	09/01/16 00:06	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/27/16 12:54	09/01/16 00:06	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	09/01/16 00:06	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/27/16 12:54	09/01/16 00:06	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/27/16 12:54	09/01/16 00:06	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/27/16 12:54	09/01/16 00:06	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/27/16 12:54	09/01/16 00:06	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/27/16 12:54	09/01/16 00:06	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/27/16 12:54	09/01/16 00:06	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	09/01/16 00:06	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 12:54	09/01/16 00:06	1
Fluorene	0.83	U	10	0.83	ug/L		08/27/16 12:54	09/01/16 00:06	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/27/16 12:54	09/01/16 00:06	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/27/16 12:54	09/01/16 00:06	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/27/16 12:54	09/01/16 00:06	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/27/16 12:54	09/01/16 00:06	1
Anthracene	0.59	U	10	0.59	ug/L		08/27/16 12:54	09/01/16 00:06	1
Carbazole	0.89	U	10	0.89	ug/L		08/27/16 12:54	09/01/16 00:06	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/27/16 12:54	09/01/16 00:06	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/27/16 12:54	09/01/16 00:06	1
Pyrene	0.86	U	10	0.86	ug/L		08/27/16 12:54	09/01/16 00:06	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/27/16 12:54	09/01/16 00:06	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/27/16 12:54	09/01/16 00:06	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/27/16 12:54	09/01/16 00:06	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/27/16 12:54	09/01/16 00:06	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/27/16 12:54	09/01/16 00:06	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/27/16 12:54	09/01/16 00:06	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/27/16 12:54	09/01/16 00:06	1
Acetophenone	1.1	U	10	1.1	ug/L		08/27/16 12:54	09/01/16 00:06	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/27/16 12:54	09/01/16 00:06	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 12:54	09/01/16 00:06	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/27/16 12:54	09/01/16 00:06	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/27/16 12:54	09/01/16 00:06	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/27/16 12:54	09/01/16 00:06	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/27/16 12:54	09/01/16 00:06	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/27/16 12:54	09/01/16 00:06	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/27/16 12:54	09/01/16 00:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*96*		*30 - 130*	*08/27/16 12:54*	*09/01/16 00:06*	*1*
Phenol-d5 (Surr)	*25*		*15 - 110*	*08/27/16 12:54*	*09/01/16 00:06*	*1*
Terphenyl-d14 (Surr)	*112*		*30 - 130*	*08/27/16 12:54*	*09/01/16 00:06*	*1*
2,4,6-Tribromophenol (Surr)	*104*		*15 - 110*	*08/27/16 12:54*	*09/01/16 00:06*	*1*
2-Fluorophenol (Surr)	*54*		*15 - 110*	*08/27/16 12:54*	*09/01/16 00:06*	*1*
2-Fluorobiphenyl	*101*		*30 - 130*	*08/27/16 12:54*	*09/01/16 00:06*	*1*

Client Sample ID: CMP-100-082216

Date Collected: 08/22/16 11:40
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-12

Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:32	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:32	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:32	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:32	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:32	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:32	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:32	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:32	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:32	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*115*		*30 - 150*	*08/25/16 08:37*	*08/26/16 17:32*	*1*
Tetrachloro-m-xylene	*123*		*30 - 150*	*08/25/16 08:37*	*08/26/16 17:32*	*1*
DCB Decachlorobiphenyl	*126*		*30 - 150*	*08/25/16 08:37*	*08/26/16 17:32*	*1*
DCB Decachlorobiphenyl	*130*		*30 - 150*	*08/25/16 08:37*	*08/26/16 17:32*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**6.50**		0.60	0.11	mg/L			08/30/16 01:18	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**146**	**D**	12.0	3.00	mg/L			08/30/16 15:17	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/02/16 06:03	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 07:58	09/02/16 06:03	2
Barium	**44.3**		4.0	1.5	ug/L		08/29/16 07:58	09/02/16 06:03	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/02/16 06:03	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 07:58	09/02/16 06:03	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 06:03	2
Chromium	**2.0**	**J**	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 06:03	2
Copper	**1.7**	**J**	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 06:03	2
Manganese	**275**		8.0	3.0	ug/L		08/29/16 07:58	09/02/16 06:03	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 06:03	2
Lead	**0.51**	**J**	1.2	0.44	ug/L		08/29/16 07:58	09/02/16 06:03	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/02/16 06:03	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 07:58	09/02/16 06:03	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 07:58	09/02/16 06:03	2
Zinc	**1070**		16.0	6.5	ug/L		08/29/16 07:58	09/02/16 06:03	2
Aluminum	**43.9**		40.0	13.5	ug/L		08/29/16 07:58	09/02/16 06:03	2
Sodium	**80500**		200	87.6	ug/L		08/29/16 07:58	09/02/16 06:03	2
Magnesium	**11100**		200	68.4	ug/L		08/29/16 07:58	09/02/16 06:03	2
Potassium	**2110**		200	74.8	ug/L		08/29/16 07:58	09/02/16 06:03	2
Calcium	**38300**		200	69.5	ug/L		08/29/16 07:58	09/02/16 06:03	2
Iron	**8650**		120	49.1	ug/L		08/29/16 07:58	09/02/16 06:03	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/02/16 06:03	2

Client Sample ID: CMP-100-082216

Lab Sample ID: 460-119025-12

Date Collected: 08/22/16 11:40

Matrix: Water

Date Received: 08/23/16 11:45

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	09/01/16 16:22	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/30/16 09:54	09/01/16 16:22	2
Barium	**37.5**		4.0	1.5	ug/L		08/30/16 09:54	09/01/16 16:22	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	09/01/16 16:22	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	09/01/16 16:22	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	09/01/16 16:22	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	09/01/16 16:22	2
Copper	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	09/01/16 16:22	2
Manganese	**253**		8.0	3.0	ug/L		08/30/16 09:54	09/01/16 16:22	2
Nickel	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	09/01/16 16:22	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	09/01/16 16:22	2
Antimony	0.76	U	2.0	0.76	ug/L		08/30/16 09:54	09/01/16 16:22	2
Selenium	0.79	U	10.0	0.79	ug/L		08/30/16 09:54	09/01/16 16:22	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/30/16 09:54	09/01/16 16:22	2
Zinc	**46.0**		16.0	6.5	ug/L		08/30/16 09:54	09/01/16 16:22	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/30/16 09:54	09/01/16 16:22	2
Sodium	**83200**		200	87.6	ug/L		08/30/16 09:54	09/01/16 16:22	2
Magnesium	**11700**		200	68.4	ug/L		08/30/16 09:54	09/01/16 16:22	2
Potassium	**2080**		200	74.8	ug/L		08/30/16 09:54	09/01/16 16:22	2
Calcium	**38200**		200	69.5	ug/L		08/30/16 09:54	09/01/16 16:22	2
Iron	49.1	U	120	49.1	ug/L		08/30/16 09:54	09/01/16 16:22	2
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	09/01/16 16:22	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 11:58	08/26/16 14:15	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 16:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/02/16 14:43	09/02/16 17:50	1
Bicarbonate Alkalinity as CaCO3	**125**		5.0	5.0	mg/L			09/02/16 17:48	1
Alkalinity	**125**		5.0	5.0	mg/L			09/02/16 17:48	1

Client Sample ID: CMP-275-082216

Lab Sample ID: 460-119025-13

Date Collected: 08/22/16 14:50

Matrix: Water

Date Received: 08/23/16 11:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/26/16 16:16	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 16:16	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*08/26/16 16:16*	*1*
4-Bromofluorobenzene	*113*		*70 - 130*		*08/26/16 16:16*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: CMP-275-082216
Date Collected: 08/22/16 14:50
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-13
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 06:41	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 06:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 06:41	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 06:41	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 06:41	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 06:41	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 06:41	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 06:41	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 06:41	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 06:41	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 06:41	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 06:41	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 06:41	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 06:41	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 06:41	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 06:41	1
Acetone	**5.6**		5.0	1.1	ug/L			08/25/16 06:41	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 06:41	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 06:41	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 06:41	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 06:41	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 06:41	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 06:41	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 06:41	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 06:41	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 06:41	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 06:41	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 06:41	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 06:41	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 06:41	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 06:41	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 06:41	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 06:41	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 06:41	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 06:41	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 06:41	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 06:41	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 06:41	1
Methylene Chloride	**0.86**	**J**	1.0	0.21	ug/L			08/25/16 06:41	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 06:41	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 06:41	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 06:41	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 06:41	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 06:41	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 06:41	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 06:41	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 06:41	1
Xylenes, Total	**0.43**	**J**	2.0	0.28	ug/L			08/25/16 06:41	1

Client Sample ID: CMP-275-082216
Date Collected: 08/22/16 14:50
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-13
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 06:41*	*1*

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*08/25/16 06:41*	*1*
4-Bromofluorobenzene	*97*		*70 - 130*		*08/25/16 06:41*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*08/25/16 06:41*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/25/16 06:41*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/27/16 12:54	09/01/16 12:23	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/27/16 12:54	09/01/16 12:23	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/27/16 12:54	09/01/16 12:23	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 12:23	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/27/16 12:54	09/01/16 12:23	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:54	09/01/16 12:23	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/27/16 12:54	09/01/16 12:23	1
Pentachlorophenol	**0.12**	**J**	0.21	0.080	ug/L		08/27/16 12:54	09/01/16 12:23	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/27/16 12:54	09/01/16 00:26	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/27/16 12:54	09/01/16 00:26	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 12:54	09/01/16 00:26	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/27/16 12:54	09/01/16 00:26	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/27/16 12:54	09/01/16 00:26	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/27/16 12:54	09/01/16 00:26	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/27/16 12:54	09/01/16 00:26	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/27/16 12:54	09/01/16 00:26	1
2,4,6-Trichlorophenol	0.55	U *	10	0.55	ug/L		08/27/16 12:54	09/01/16 00:26	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/27/16 12:54	09/01/16 00:26	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/27/16 12:54	09/01/16 00:26	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/27/16 12:54	09/01/16 00:26	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/27/16 12:54	09/01/16 00:26	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/27/16 12:54	09/01/16 00:26	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/27/16 12:54	09/01/16 00:26	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/27/16 12:54	09/01/16 00:26	1
Isophorone	0.70	U	10	0.70	ug/L		08/27/16 12:54	09/01/16 00:26	1
Naphthalene	0.83	U	10	0.83	ug/L		08/27/16 12:54	09/01/16 00:26	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/27/16 12:54	09/01/16 00:26	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/27/16 12:54	09/01/16 00:26	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/27/16 12:54	09/01/16 00:26	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/27/16 12:54	09/01/16 00:26	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/27/16 12:54	09/01/16 00:26	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/27/16 12:54	09/01/16 00:26	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	09/01/16 00:26	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/27/16 12:54	09/01/16 00:26	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/27/16 12:54	09/01/16 00:26	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/27/16 12:54	09/01/16 00:26	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/27/16 12:54	09/01/16 00:26	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/27/16 12:54	09/01/16 00:26	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: CMP-275-082216
Date Collected: 08/22/16 14:50
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-13
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/27/16 12:54	09/01/16 00:26	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	09/01/16 00:26	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 12:54	09/01/16 00:26	1
Fluorene	0.83	U	10	0.83	ug/L		08/27/16 12:54	09/01/16 00:26	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/27/16 12:54	09/01/16 00:26	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/27/16 12:54	09/01/16 00:26	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/27/16 12:54	09/01/16 00:26	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/27/16 12:54	09/01/16 00:26	1
Anthracene	0.59	U	10	0.59	ug/L		08/27/16 12:54	09/01/16 00:26	1
Carbazole	0.89	U	10	0.89	ug/L		08/27/16 12:54	09/01/16 00:26	1
Di-n-butyl phthalate	**2.5**	**J B**	10	0.85	ug/L		08/27/16 12:54	09/01/16 00:26	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/27/16 12:54	09/01/16 00:26	1
Pyrene	0.86	U	10	0.86	ug/L		08/27/16 12:54	09/01/16 00:26	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/27/16 12:54	09/01/16 00:26	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/27/16 12:54	09/01/16 00:26	1
Bis(2-ethylhexyl) phthalate	**2.8**		2.1	0.75	ug/L		08/27/16 12:54	09/01/16 00:26	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/27/16 12:54	09/01/16 00:26	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/27/16 12:54	09/01/16 00:26	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/27/16 12:54	09/01/16 00:26	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/27/16 12:54	09/01/16 00:26	1
Acetophenone	1.1	U	10	1.1	ug/L		08/27/16 12:54	09/01/16 00:26	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/27/16 12:54	09/01/16 00:26	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 12:54	09/01/16 00:26	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/27/16 12:54	09/01/16 00:26	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/27/16 12:54	09/01/16 00:26	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/27/16 12:54	09/01/16 00:26	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/27/16 12:54	09/01/16 00:26	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/27/16 12:54	09/01/16 00:26	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/27/16 12:54	09/01/16 00:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*88*		*30 - 130*	*08/27/16 12:54*	*09/01/16 00:26*	*1*
Phenol-d5 (Surr)	*19*		*15 - 110*	*08/27/16 12:54*	*09/01/16 00:26*	*1*
Terphenyl-d14 (Surr)	*100*		*30 - 130*	*08/27/16 12:54*	*09/01/16 00:26*	*1*
2,4,6-Tribromophenol (Surr)	*81*		*15 - 110*	*08/27/16 12:54*	*09/01/16 00:26*	*1*
2-Fluorophenol (Surr)	*46*		*15 - 110*	*08/27/16 12:54*	*09/01/16 00:26*	*1*
2-Fluorobiphenyl	*81*		*30 - 130*	*08/27/16 12:54*	*09/01/16 00:26*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:47	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:47	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:47	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:47	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:47	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 17:47	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:47	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:47	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:47	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 17:47	1

Client Sample ID: CMP-275-082216

Date Collected: 08/22/16 14:50
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-13

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	140		30 - 150	08/25/16 08:37	08/26/16 17:47	1
Tetrachloro-m-xylene	138		30 - 150	08/25/16 08:37	08/26/16 17:47	1
DCB Decachlorobiphenyl	142		30 - 150	08/25/16 08:37	08/26/16 17:47	1
DCB Decachlorobiphenyl	137		30 - 150	08/25/16 08:37	08/26/16 17:47	1

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**0.71**		0.60	0.11	mg/L			08/30/16 01:36	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**85.9**	**D**	12.0	3.00	mg/L			08/30/16 15:35	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/02/16 06:09	2
Arsenic	**0.94**	**J**	2.0	0.71	ug/L		08/29/16 07:58	09/02/16 06:09	2
Barium	**134**		4.0	1.5	ug/L		08/29/16 07:58	09/02/16 06:09	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/02/16 06:09	2
Cadmium	**13.2**		2.0	0.72	ug/L		08/29/16 07:58	09/02/16 06:09	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 06:09	2
Chromium	**25.5**		4.0	1.5	ug/L		08/29/16 07:58	09/02/16 06:09	2
Copper	**40.3**		4.0	1.6	ug/L		08/29/16 07:58	09/02/16 06:09	2
Manganese	**1230**		8.0	3.0	ug/L		08/29/16 07:58	09/02/16 06:09	2
Nickel	**7.3**		4.0	1.6	ug/L		08/29/16 07:58	09/02/16 06:09	2
Lead	**192**		1.2	0.44	ug/L		08/29/16 07:58	09/02/16 06:09	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/02/16 06:09	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 07:58	09/02/16 06:09	2
Vanadium	**1.4**	**J**	4.0	1.4	ug/L		08/29/16 07:58	09/02/16 06:09	2
Zinc	**4260**		40.0	16.2	ug/L		08/29/16 07:58	09/07/16 12:52	5
Aluminum	**50.4**		40.0	13.5	ug/L		08/29/16 07:58	09/02/16 06:09	2
Sodium	**53600**		200	87.6	ug/L		08/29/16 07:58	09/02/16 06:09	2
Magnesium	**21100**		200	68.4	ug/L		08/29/16 07:58	09/02/16 06:09	2
Potassium	**7580**		200	74.8	ug/L		08/29/16 07:58	09/02/16 06:09	2
Calcium	**89400**		200	69.5	ug/L		08/29/16 07:58	09/02/16 06:09	2
Iron	**21900**		120	49.1	ug/L		08/29/16 07:58	09/02/16 06:09	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/02/16 06:09	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:44	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/30/16 09:54	08/30/16 23:44	2
Barium	**99.7**		4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:44	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	08/30/16 23:44	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	08/30/16 23:44	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:44	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:44	2
Copper	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:44	2
Manganese	**1160**		8.0	3.0	ug/L		08/30/16 09:54	08/30/16 23:44	2
Nickel	**4.4**		4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:44	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	08/30/16 23:44	2

Client Sample ID: CMP-275-082216

Lab Sample ID: 460-119025-13

Date Collected: 08/22/16 14:50

Matrix: Water

Date Received: 08/23/16 11:45

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.76	U	2.0	0.76	ug/L		08/30/16 09:54	08/30/16 23:44	2
Selenium	0.79	U	10.0	0.79	ug/L		08/30/16 09:54	08/30/16 23:44	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/30/16 09:54	08/30/16 23:44	2
Zinc	**532**		16.0	6.5	ug/L		08/30/16 09:54	08/30/16 23:44	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/30/16 09:54	08/30/16 23:44	2
Sodium	**58300**		200	87.6	ug/L		08/30/16 09:54	08/30/16 23:44	2
Magnesium	**23200**		200	68.4	ug/L		08/30/16 09:54	08/30/16 23:44	2
Potassium	**7310**		200	74.8	ug/L		08/30/16 09:54	09/01/16 16:40	2
Calcium	**93800**		200	69.5	ug/L		08/30/16 09:54	08/30/16 23:44	2
Iron	**2090**		120	49.1	ug/L		08/30/16 09:54	08/30/16 23:44	2
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	08/30/16 23:44	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 11:58	08/26/16 14:17	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 16:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/02/16 14:46	09/02/16 17:51	1
Bicarbonate Alkalinity as CaCO3	**352**		5.0	5.0	mg/L			09/02/16 17:48	1
Alkalinity	**352**		5.0	5.0	mg/L			09/02/16 17:48	1

Client Sample ID: CMP-50-082216

Lab Sample ID: 460-119025-14

Date Collected: 08/22/16 10:30

Matrix: Water

Date Received: 08/23/16 11:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/27/16 18:10	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/27/16 18:10	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/27/16 18:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*08/27/16 18:10*	*1*
4-Bromofluorobenzene	*104*		*70 - 130*		*08/27/16 18:10*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 07:07	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 07:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 07:07	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 07:07	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 07:07	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 07:07	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 07:07	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 07:07	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 07:07	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: CMP-50-082216
Date Collected: 08/22/16 10:30
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-14
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 07:07	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 07:07	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 07:07	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 07:07	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 07:07	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 07:07	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 07:07	1
Acetone	**2.9**	**J**	5.0	1.1	ug/L			08/25/16 07:07	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 07:07	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 07:07	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 07:07	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 07:07	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 07:07	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 07:07	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 07:07	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 07:07	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 07:07	1
Chloroform	**2.3**		1.0	0.22	ug/L			08/25/16 07:07	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 07:07	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 07:07	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 07:07	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 07:07	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 07:07	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 07:07	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 07:07	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 07:07	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 07:07	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 07:07	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 07:07	1
Methylene Chloride	**0.70**	**J**	1.0	0.21	ug/L			08/25/16 07:07	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 07:07	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 07:07	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 07:07	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 07:07	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 07:07	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 07:07	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 07:07	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 07:07	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 07:07	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 07:07*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*08/25/16 07:07*	*1*
4-Bromofluorobenzene	*94*		*70 - 130*		*08/25/16 07:07*	*1*
Dibromofluoromethane (Surr)	*96*		*70 - 130*		*08/25/16 07:07*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*08/25/16 07:07*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: CMP-50-082216
Date Collected: 08/22/16 10:30
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-14
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/27/16 12:57	09/01/16 12:52	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/27/16 12:57	09/01/16 12:52	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/27/16 12:57	09/01/16 12:52	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:57	09/01/16 12:52	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/27/16 12:57	09/01/16 12:52	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:57	09/01/16 12:52	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/27/16 12:57	09/01/16 12:52	1
Pentachlorophenol	**0.10**	**J**	0.21	0.080	ug/L		08/27/16 12:57	09/01/16 12:52	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/27/16 12:57	09/01/16 00:46	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/27/16 12:57	09/01/16 00:46	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 12:57	09/01/16 00:46	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/27/16 12:57	09/01/16 00:46	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/27/16 12:57	09/01/16 00:46	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/27/16 12:57	09/01/16 00:46	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/27/16 12:57	09/01/16 00:46	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/27/16 12:57	09/01/16 00:46	1
2,4,6-Trichlorophenol	0.55	U *	10	0.55	ug/L		08/27/16 12:57	09/01/16 00:46	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/27/16 12:57	09/01/16 00:46	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/27/16 12:57	09/01/16 00:46	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/27/16 12:57	09/01/16 00:46	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/27/16 12:57	09/01/16 00:46	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/27/16 12:57	09/01/16 00:46	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/27/16 12:57	09/01/16 00:46	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/27/16 12:57	09/01/16 00:46	1
Isophorone	0.70	U	10	0.70	ug/L		08/27/16 12:57	09/01/16 00:46	1
Naphthalene	0.83	U	10	0.83	ug/L		08/27/16 12:57	09/01/16 00:46	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/27/16 12:57	09/01/16 00:46	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/27/16 12:57	09/01/16 00:46	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/27/16 12:57	09/01/16 00:46	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/27/16 12:57	09/01/16 00:46	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/27/16 12:57	09/01/16 00:46	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/27/16 12:57	09/01/16 00:46	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:57	09/01/16 00:46	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/27/16 12:57	09/01/16 00:46	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/27/16 12:57	09/01/16 00:46	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/27/16 12:57	09/01/16 00:46	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/27/16 12:57	09/01/16 00:46	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/27/16 12:57	09/01/16 00:46	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/27/16 12:57	09/01/16 00:46	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:57	09/01/16 00:46	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 12:57	09/01/16 00:46	1
Fluorene	0.83	U	10	0.83	ug/L		08/27/16 12:57	09/01/16 00:46	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/27/16 12:57	09/01/16 00:46	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/27/16 12:57	09/01/16 00:46	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/27/16 12:57	09/01/16 00:46	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/27/16 12:57	09/01/16 00:46	1
Anthracene	0.59	U	10	0.59	ug/L		08/27/16 12:57	09/01/16 00:46	1

Client Sample ID: CMP-50-082216
Date Collected: 08/22/16 10:30
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-14
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbazole	0.89	U	10	0.89	ug/L		08/27/16 12:57	09/01/16 00:46	1
Di-n-butyl phthalate	**1.7**	**J B**	10	0.85	ug/L		08/27/16 12:57	09/01/16 00:46	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/27/16 12:57	09/01/16 00:46	1
Pyrene	0.86	U	10	0.86	ug/L		08/27/16 12:57	09/01/16 00:46	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/27/16 12:57	09/01/16 00:46	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/27/16 12:57	09/01/16 00:46	1
Bis(2-ethylhexyl) phthalate	**1.7**	**J**	2.1	0.75	ug/L		08/27/16 12:57	09/01/16 00:46	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/27/16 12:57	09/01/16 00:46	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/27/16 12:57	09/01/16 00:46	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/27/16 12:57	09/01/16 00:46	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/27/16 12:57	09/01/16 00:46	1
Acetophenone	1.1	U	10	1.1	ug/L		08/27/16 12:57	09/01/16 00:46	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/27/16 12:57	09/01/16 00:46	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 12:57	09/01/16 00:46	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/27/16 12:57	09/01/16 00:46	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/27/16 12:57	09/01/16 00:46	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/27/16 12:57	09/01/16 00:46	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/27/16 12:57	09/01/16 00:46	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/27/16 12:57	09/01/16 00:46	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/27/16 12:57	09/01/16 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*96*		*30 - 130*	*08/27/16 12:57*	*09/01/16 00:46*	*1*
Phenol-d5 (Surr)	*21*		*15 - 110*	*08/27/16 12:57*	*09/01/16 00:46*	*1*
Terphenyl-d14 (Surr)	*114*		*30 - 130*	*08/27/16 12:57*	*09/01/16 00:46*	*1*
2,4,6-Tribromophenol (Surr)	*99*		*15 - 110*	*08/27/16 12:57*	*09/01/16 00:46*	*1*
2-Fluorophenol (Surr)	*44*		*15 - 110*	*08/27/16 12:57*	*09/01/16 00:46*	*1*
2-Fluorobiphenyl	*92*		*30 - 130*	*08/27/16 12:57*	*09/01/16 00:46*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:59	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:59	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:59	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:59	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:59	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:59	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 09:59	1
PCB-1260	0.084	U *	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 09:59	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 09:59	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 09:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*80*		*30 - 150*	*08/25/16 19:20*	*08/26/16 09:59*	*1*
Tetrachloro-m-xylene	*88*		*30 - 150*	*08/25/16 19:20*	*08/26/16 09:59*	*1*
DCB Decachlorobiphenyl	*111*		*30 - 150*	*08/25/16 19:20*	*08/26/16 09:59*	*1*
DCB Decachlorobiphenyl	*116*		*30 - 150*	*08/25/16 19:20*	*08/26/16 09:59*	*1*

Client Sample ID: CMP-50-082216
Date Collected: 08/22/16 10:30
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-14
Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**13.6**		0.60	0.11	mg/L			08/30/16 01:54	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**142**	**D**	12.0	3.00	mg/L			08/30/16 15:53	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 10:37	09/02/16 06:15	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 10:37	09/02/16 06:15	2
Barium	**40.8**		4.0	1.5	ug/L		08/29/16 10:37	09/02/16 06:15	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 10:37	09/02/16 06:15	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 10:37	09/02/16 06:15	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 10:37	09/02/16 06:15	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 10:37	09/02/16 06:15	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 10:37	09/02/16 06:15	2
Manganese	**121**		8.0	3.0	ug/L		08/29/16 10:37	09/02/16 06:15	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 10:37	09/02/16 06:15	2
Lead	**0.47**	**J**	1.2	0.44	ug/L		08/29/16 10:37	09/02/16 06:15	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 10:37	09/02/16 06:15	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 10:37	09/02/16 06:15	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 10:37	09/02/16 06:15	2
Zinc	**65.7**		16.0	6.5	ug/L		08/29/16 10:37	09/02/16 06:15	2
Aluminum	**21.1**	**J**	40.0	13.5	ug/L		08/29/16 10:37	09/02/16 06:15	2
Sodium	**77400**		200	87.6	ug/L		08/29/16 10:37	09/02/16 06:15	2
Magnesium	**9660**		200	68.4	ug/L		08/29/16 10:37	09/02/16 06:15	2
Potassium	**2090**		200	74.8	ug/L		08/29/16 10:37	09/02/16 06:15	2
Calcium	**36500**		200	69.5	ug/L		08/29/16 10:37	09/02/16 06:15	2
Iron	**1180**		120	49.1	ug/L		08/29/16 10:37	09/02/16 06:15	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 10:37	09/02/16 06:15	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:49	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/30/16 09:54	08/30/16 23:49	2
Barium	**43.8**		4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:49	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	08/30/16 23:49	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	08/30/16 23:49	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:49	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:49	2
Copper	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:49	2
Manganese	**109**		8.0	3.0	ug/L		08/30/16 09:54	08/30/16 23:49	2
Nickel	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:49	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	08/30/16 23:49	2
Antimony	0.76	U	2.0	0.76	ug/L		08/30/16 09:54	08/30/16 23:49	2
Selenium	0.79	U	10.0	0.79	ug/L		08/30/16 09:54	08/30/16 23:49	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/30/16 09:54	08/30/16 23:49	2
Zinc	**25.0**		16.0	6.5	ug/L		08/30/16 09:54	08/30/16 23:49	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/30/16 09:54	08/30/16 23:49	2
Sodium	**83600**		200	87.6	ug/L		08/30/16 09:54	08/30/16 23:49	2

Client Sample ID: CMP-50-082216

Lab Sample ID: 460-119025-14

Date Collected: 08/22/16 10:30

Matrix: Water

Date Received: 08/23/16 11:45

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	**10600**		200	68.4	ug/L		08/30/16 09:54	08/30/16 23:49	2
Potassium	**2000**		200	74.8	ug/L		08/30/16 09:54	09/01/16 16:46	2
Calcium	**38300**		200	69.5	ug/L		08/30/16 09:54	08/30/16 23:49	2
Iron	**136**		120	49.1	ug/L		08/30/16 09:54	08/30/16 23:49	2
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	08/30/16 23:49	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 11:58	08/26/16 14:22	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		09/01/16 10:55	09/01/16 15:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/02/16 14:46	09/02/16 17:52	1
Bicarbonate Alkalinity as CaCO3	**107**		5.0	5.0	mg/L			09/02/16 17:48	1
Alkalinity	**107**		5.0	5.0	mg/L			09/02/16 17:48	1

Client Sample ID: TB-05-082216

Lab Sample ID: 460-119025-15

Date Collected: 08/22/16 00:00

Matrix: Water

Date Received: 08/23/16 11:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/26/16 10:49	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 10:49	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 10:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*08/26/16 10:49*	*1*
4-Bromofluorobenzene	*103*		*70 - 130*		*08/26/16 10:49*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 00:39	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 00:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 00:39	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 00:39	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 00:39	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 00:39	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 00:39	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 00:39	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 00:39	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 00:39	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 00:39	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 00:39	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 00:39	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 00:39	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 00:39	1

Client Sample ID: TB-05-082216

Lab Sample ID: 460-119025-15

Date Collected: 08/22/16 00:00

Matrix: Water

Date Received: 08/23/16 11:45

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 00:39	1
Acetone	**5.6**		5.0	1.1	ug/L			08/25/16 00:39	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 00:39	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 00:39	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 00:39	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 00:39	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 00:39	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 00:39	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 00:39	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 00:39	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 00:39	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 00:39	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 00:39	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 00:39	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 00:39	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 00:39	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 00:39	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 00:39	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 00:39	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 00:39	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 00:39	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 00:39	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 00:39	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 00:39	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 00:39	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 00:39	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 00:39	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 00:39	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 00:39	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 00:39	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 00:39	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 00:39	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 00:39	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 00:39*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*08/25/16 00:39*	*1*
4-Bromofluorobenzene	*94*		*70 - 130*		*08/25/16 00:39*	*1*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*08/25/16 00:39*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/25/16 00:39*	*1*

Client Sample ID: SW-PMB-01-082316

Lab Sample ID: 460-119025-16

Date Collected: 08/23/16 07:30

Matrix: Water

Date Received: 08/23/16 11:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/26/16 17:06	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-PMB-01-082316
Date Collected: 08/23/16 07:30
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-16
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 17:06	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 17:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*08/26/16 17:06*	*1*
4-Bromofluorobenzene	*110*		*70 - 130*		*08/26/16 17:06*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 07:33	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 07:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 07:33	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 07:33	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 07:33	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 07:33	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 07:33	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 07:33	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 07:33	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 07:33	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 07:33	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 07:33	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 07:33	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 07:33	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 07:33	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 07:33	1
Acetone	**6.8**		5.0	1.1	ug/L			08/25/16 07:33	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 07:33	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 07:33	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 07:33	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 07:33	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 07:33	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 07:33	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 07:33	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 07:33	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 07:33	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 07:33	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 07:33	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 07:33	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 07:33	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 07:33	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 07:33	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 07:33	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 07:33	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 07:33	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 07:33	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 07:33	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 07:33	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 07:33	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 07:33	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 07:33	1

Client Sample ID: SW-PMB-01-082316
Date Collected: 08/23/16 07:30
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-16
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 07:33	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 07:33	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 07:33	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 07:33	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 07:33	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 07:33	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 07:33	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/25/16 07:33*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*		*08/25/16 07:33*	*1*
4-Bromofluorobenzene	*95*		*70 - 130*		*08/25/16 07:33*	*1*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*08/25/16 07:33*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/25/16 07:33*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/27/16 12:57	09/01/16 13:21	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/27/16 12:57	09/01/16 13:21	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/27/16 12:57	09/01/16 13:21	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:57	09/01/16 13:21	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/27/16 12:57	09/01/16 13:21	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/27/16 12:57	09/01/16 13:21	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/27/16 12:57	09/01/16 13:21	1
Pentachlorophenol	**0.12**	**J**	0.21	0.080	ug/L		08/27/16 12:57	09/01/16 13:21	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/27/16 12:57	09/01/16 01:05	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/27/16 12:57	09/01/16 01:05	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 12:57	09/01/16 01:05	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/27/16 12:57	09/01/16 01:05	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/27/16 12:57	09/01/16 01:05	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/27/16 12:57	09/01/16 01:05	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/27/16 12:57	09/01/16 01:05	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/27/16 12:57	09/01/16 01:05	1
2,4,6-Trichlorophenol	0.55	U *	10	0.55	ug/L		08/27/16 12:57	09/01/16 01:05	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/27/16 12:57	09/01/16 01:05	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/27/16 12:57	09/01/16 01:05	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/27/16 12:57	09/01/16 01:05	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/27/16 12:57	09/01/16 01:05	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/27/16 12:57	09/01/16 01:05	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/27/16 12:57	09/01/16 01:05	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/27/16 12:57	09/01/16 01:05	1
Isophorone	0.70	U	10	0.70	ug/L		08/27/16 12:57	09/01/16 01:05	1
Naphthalene	0.83	U	10	0.83	ug/L		08/27/16 12:57	09/01/16 01:05	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/27/16 12:57	09/01/16 01:05	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/27/16 12:57	09/01/16 01:05	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-PMB-01-082316
Date Collected: 08/23/16 07:30
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-16
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/27/16 12:57	09/01/16 01:05	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/27/16 12:57	09/01/16 01:05	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/27/16 12:57	09/01/16 01:05	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/27/16 12:57	09/01/16 01:05	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:57	09/01/16 01:05	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/27/16 12:57	09/01/16 01:05	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/27/16 12:57	09/01/16 01:05	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/27/16 12:57	09/01/16 01:05	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/27/16 12:57	09/01/16 01:05	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/27/16 12:57	09/01/16 01:05	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/27/16 12:57	09/01/16 01:05	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:57	09/01/16 01:05	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 12:57	09/01/16 01:05	1
Fluorene	0.83	U	10	0.83	ug/L		08/27/16 12:57	09/01/16 01:05	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/27/16 12:57	09/01/16 01:05	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/27/16 12:57	09/01/16 01:05	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/27/16 12:57	09/01/16 01:05	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/27/16 12:57	09/01/16 01:05	1
Anthracene	0.59	U	10	0.59	ug/L		08/27/16 12:57	09/01/16 01:05	1
Carbazole	0.89	U	10	0.89	ug/L		08/27/16 12:57	09/01/16 01:05	1
Di-n-butyl phthalate	**2.7**	**J B**	10	0.85	ug/L		08/27/16 12:57	09/01/16 01:05	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/27/16 12:57	09/01/16 01:05	1
Pyrene	0.86	U	10	0.86	ug/L		08/27/16 12:57	09/01/16 01:05	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/27/16 12:57	09/01/16 01:05	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/27/16 12:57	09/01/16 01:05	1
Bis(2-ethylhexyl) phthalate	**4.0**		2.1	0.75	ug/L		08/27/16 12:57	09/01/16 01:05	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/27/16 12:57	09/01/16 01:05	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/27/16 12:57	09/01/16 01:05	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/27/16 12:57	09/01/16 01:05	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/27/16 12:57	09/01/16 01:05	1
Acetophenone	1.1	U	10	1.1	ug/L		08/27/16 12:57	09/01/16 01:05	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/27/16 12:57	09/01/16 01:05	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 12:57	09/01/16 01:05	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/27/16 12:57	09/01/16 01:05	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/27/16 12:57	09/01/16 01:05	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/27/16 12:57	09/01/16 01:05	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/27/16 12:57	09/01/16 01:05	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/27/16 12:57	09/01/16 01:05	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/27/16 12:57	09/01/16 01:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*84*		*30 - 130*	*08/27/16 12:57*	*09/01/16 01:05*	*1*
Phenol-d5 (Surr)	*18*		*15 - 110*	*08/27/16 12:57*	*09/01/16 01:05*	*1*
Terphenyl-d14 (Surr)	*98*		*30 - 130*	*08/27/16 12:57*	*09/01/16 01:05*	*1*
2,4,6-Tribromophenol (Surr)	*83*		*15 - 110*	*08/27/16 12:57*	*09/01/16 01:05*	*1*
2-Fluorophenol (Surr)	*34*		*15 - 110*	*08/27/16 12:57*	*09/01/16 01:05*	*1*
2-Fluorobiphenyl	*88*		*30 - 130*	*08/27/16 12:57*	*09/01/16 01:05*	*1*

Client Sample ID: SW-PMB-01-082316

Date Collected: 08/23/16 07:30
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-16

Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:17	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:17	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:17	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:17	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:17	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:17	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 10:17	1
PCB-1260	0.084	U *	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 10:17	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 10:17	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 10:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*81*		*30 - 150*	*08/25/16 19:20*	*08/26/16 10:17*	*1*
Tetrachloro-m-xylene	*90*		*30 - 150*	*08/25/16 19:20*	*08/26/16 10:17*	*1*
DCB Decachlorobiphenyl	*102*		*30 - 150*	*08/25/16 19:20*	*08/26/16 10:17*	*1*
DCB Decachlorobiphenyl	*114*		*30 - 150*	*08/25/16 19:20*	*08/26/16 10:17*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1.99**		0.60	0.11	mg/L			08/30/16 02:12	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**139**	**D**	12.0	3.00	mg/L			08/30/16 16:11	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 10:37	09/02/16 06:21	2
Arsenic	**3.5**		2.0	0.71	ug/L		08/29/16 10:37	09/02/16 06:21	2
Barium	**345**		4.0	1.5	ug/L		08/29/16 10:37	09/02/16 06:21	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 10:37	09/02/16 06:21	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 10:37	09/02/16 06:21	2
Cobalt	**4.0**		4.0	1.5	ug/L		08/29/16 10:37	09/02/16 06:21	2
Chromium	**1.6**	**J**	4.0	1.5	ug/L		08/29/16 10:37	09/02/16 06:21	2
Copper	**8.0**		4.0	1.6	ug/L		08/29/16 10:37	09/02/16 06:21	2
Manganese	**17400**		8.0	3.0	ug/L		08/29/16 10:37	09/02/16 06:21	2
Nickel	**3.2**	**J**	4.0	1.6	ug/L		08/29/16 10:37	09/02/16 06:21	2
Lead	**3.2**		1.2	0.44	ug/L		08/29/16 10:37	09/02/16 06:21	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 10:37	09/02/16 06:21	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 10:37	09/02/16 06:21	2
Vanadium	**2.5**	**J**	4.0	1.4	ug/L		08/29/16 10:37	09/02/16 06:21	2
Zinc	**25.7**		16.0	6.5	ug/L		08/29/16 10:37	09/02/16 06:21	2
Aluminum	**610**		40.0	13.5	ug/L		08/29/16 10:37	09/02/16 06:21	2
Sodium	**71400**		200	87.6	ug/L		08/29/16 10:37	09/02/16 06:21	2
Magnesium	**11100**		200	68.4	ug/L		08/29/16 10:37	09/02/16 06:21	2
Potassium	**10200**		200	74.8	ug/L		08/29/16 10:37	09/02/16 06:21	2
Calcium	**58900**		200	69.5	ug/L		08/29/16 10:37	09/02/16 06:21	2
Iron	**46800**		120	49.1	ug/L		08/29/16 10:37	09/02/16 06:21	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 10:37	09/02/16 06:21	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: SW-PMB-01-082316
Date Collected: 08/23/16 07:30
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-16
Matrix: Water

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:55	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/30/16 09:54	08/30/16 23:55	2
Barium	**37.7**		4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:55	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	08/30/16 23:55	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	08/30/16 23:55	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:55	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 23:55	2
Copper	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:55	2
Manganese	**901**		8.0	3.0	ug/L		08/30/16 09:54	08/30/16 23:55	2
Nickel	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 23:55	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	08/30/16 23:55	2
Antimony	0.76	U	2.0	0.76	ug/L		08/30/16 09:54	08/30/16 23:55	2
Selenium	0.79	U	10.0	0.79	ug/L		08/30/16 09:54	08/30/16 23:55	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/30/16 09:54	08/30/16 23:55	2
Zinc	6.5	U	16.0	6.5	ug/L		08/30/16 09:54	08/30/16 23:55	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/30/16 09:54	08/30/16 23:55	2
Sodium	**82100**		200	87.6	ug/L		08/30/16 09:54	08/30/16 23:55	2
Magnesium	**12600**		200	68.4	ug/L		08/30/16 09:54	08/30/16 23:55	2
Potassium	**10700**		200	74.8	ug/L		08/30/16 09:54	09/01/16 16:51	2
Calcium	**61400**		200	69.5	ug/L		08/30/16 09:54	08/30/16 23:55	2
Iron	**62.5**	**J**	120	49.1	ug/L		08/30/16 09:54	08/30/16 23:55	2
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	08/30/16 23:55	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 11:58	08/26/16 14:24	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		09/01/16 10:55	09/01/16 15:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0061**	**J**	0.010	0.0020	mg/L		09/02/16 14:46	09/02/16 17:53	1
Bicarbonate Alkalinity as CaCO3	**205**		5.0	5.0	mg/L			09/02/16 17:48	1
Alkalinity	**205**		5.0	5.0	mg/L			09/02/16 17:48	1

Surrogate Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)	DBFM (70-130)	TOL (70-130)
460-119025-1	PMP-Pond-082216	96	95	94	98
460-119025-2	Dup-03-082216	96	94	95	98
460-119025-3	SW-PAB-02-082216	95	96	96	97
460-119025-4	SW-PAB-03-082216	95	94	95	97
460-119025-5	SW-PMB-02-082216	97	94	95	98
460-119025-6	SW-MRB-01-082216	96	94	95	98
460-119025-7	SW-NOB-01-082216	98	97	96	98
460-119025-8	RW-12(55-65)-082216	92	93	93	97
460-119025-9	RW-2(452-462)-082216	94	97	94	99
460-119025-10	RW-2(279-289)-082216	94	95	94	99
460-119025-11	CMP-160-082216	96	95	96	99
460-119025-12	CMP-100-082216	97	95	94	99
460-119025-13	CMP-275-082216	95	97	96	98
460-119025-14	CMP-50-082216	97	94	96	97
460-119025-15	TB-05-082216	96	94	95	98
460-119025-16	SW-PMB-01-082316	95	95	93	98
LCS 460-386589/3	Lab Control Sample	93	95	93	98
LCSD 460-386589/4	Lab Control Sample Dup	93	95	93	99
MB 460-386589/7	Method Blank	95	94	92	97

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)
460-119025-1	PMP-Pond-082216	105	91
460-119025-2	Dup-03-082216	104	92
460-119025-3	SW-PAB-02-082216	110	92
460-119025-4	SW-PAB-03-082216	109	104
460-119025-5	SW-PMB-02-082216	109	108
460-119025-6	SW-MRB-01-082216	108	100
460-119025-7	SW-NOB-01-082216	104	110
460-119025-8	RW-12(55-65)-082216	107	106
460-119025-9	RW-2(452-462)-082216	105	110
460-119025-10	RW-2(279-289)-082216	107	109
460-119025-11	CMP-160-082216	103	118
460-119025-12	CMP-100-082216	106	122
460-119025-13	CMP-275-082216	107	113
460-119025-14	CMP-50-082216	108	104
460-119025-15	TB-05-082216	107	103
460-119025-16	SW-PMB-01-082316	109	110
460-119057-A-1 MS	Matrix Spike	107	104

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		12DCE	BFB								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
460-119057-A-1 MSD	Matrix Spike Duplicate	106	101								
LCS 460-386835/3	Lab Control Sample	105	98								
LCS 460-386888/3	Lab Control Sample	107	102								
LCS 460-387169/4	Lab Control Sample	106	102								
LCSD 460-386835/4	Lab Control Sample Dup	103	99								
LCSD 460-386888/4	Lab Control Sample Dup	106	104								
MB 460-386835/7	Method Blank	104	90								
MB 460-386888/7	Method Blank	107	98								
MB 460-387169/8	Method Blank	106	96								

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
		NBZ	PHL	TPH	TBP	2FP	FBP		
Lab Sample ID	Client Sample ID	(30-130)	(15-110)	(30-130)	(15-110)	(15-110)	(30-130)		
460-119025-1	PMP-Pond-082216	93	22	108	107	51	86		
460-119025-2	Dup-03-082216	96	24	108	104	46	97		
460-119025-3	SW-PAB-02-082216	91	18	108	103	43	88		
460-119025-4	SW-PAB-03-082216	84	28	109	95	50	92		
460-119025-5	SW-PMB-02-082216	88	23	101	98	49	85		
460-119025-6	SW-MRB-01-082216	91	23	115	99	49	85		
460-119025-7	SW-NOB-01-082216	90	23	106	99	49	80		
460-119025-8	RW-12(55-65)-082216	93	30	88	96	49	93		
460-119025-9	RW-2(452-462)-082216	81	31	109	101	52	82		
460-119025-10	RW-2(279-289)-082216	90	28	109	99	58	95		
460-119025-11	CMP-160-082216	95	23	100	88	48	86		
460-119025-12	CMP-100-082216	96	25	112	104	54	101		
460-119025-13	CMP-275-082216	88	19	100	81	46	81		
460-119025-14	CMP-50-082216	96	21	114	99	44	92		
460-119025-16	SW-PMB-01-082316	84	18	98	83	34	88		
LCS 460-387194/2-A	Lab Control Sample	95	24	89	97	36	103		
LCS 460-387194/4-A	Lab Control Sample	96	26	104	102	48	91		
LCSD 460-387194/3-A	Lab Control Sample Dup	87	29	87	91	44	94		
LCSD 460-387194/5-A	Lab Control Sample Dup	84	20	94	97	40	85		
MB 460-387194/1-A	Method Blank	92	17	90	103	38	87		

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Surrogate Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)
460-119025-1	PMP-Pond-082216	106	103	108	109
460-119025-2	Dup-03-082216	112	122	118	129
460-119025-3	SW-PAB-02-082216	101	100	113	107
460-119025-4	SW-PAB-03-082216	113	117	121	122
460-119025-5	SW-PMB-02-082216	110	111	124	121
460-119025-6	SW-MRB-01-082216	110	116	128	131
460-119025-7	SW-NOB-01-082216	95	104	99	104
460-119025-8	RW-12(55-65)-082216	120	100	121	103
460-119025-9	RW-2(452-462)-082216	121	124	137	140
460-119025-10	RW-2(279-289)-082216	105	111	124	131
460-119025-11	CMP-160-082216	125	135	125	134
460-119025-12	CMP-100-082216	115	123	126	130
460-119025-13	CMP-275-082216	140	138	142	137
460-119025-14	CMP-50-082216	80	88	111	116
460-119025-16	SW-PMB-01-082316	81	90	102	114
LCS 460-386713/2-A	Lab Control Sample	113	115	92	94
LCS 460-386713/2-A - RA	Lab Control Sample	125	110	112	95
LCS 460-386833/2-A	Lab Control Sample	59	65	141	141
LCSD 460-386713/3-A	Lab Control Sample Dup	106	111	86	92
LCSD 460-386713/3-A - RA	Lab Control Sample Dup	107	107	98	94
LCSD 460-386833/3-A	Lab Control Sample Dup	80	79	132	121
MB 460-386713/1-A	Method Blank	79	84	85	92
MB 460-386713/1-A - RA	Method Blank	84	86	119	95
MB 460-386833/1-A	Method Blank	68	74	118	121

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-386589/7
Matrix: Water
Analysis Batch: 386589

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 00:14	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 00:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 00:14	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 00:14	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 00:14	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 00:14	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 00:14	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 00:14	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 00:14	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 00:14	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 00:14	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 00:14	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 00:14	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 00:14	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 00:14	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 00:14	1
Acetone	1.1	U	5.0	1.1	ug/L			08/25/16 00:14	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 00:14	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 00:14	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 00:14	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 00:14	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 00:14	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 00:14	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 00:14	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 00:14	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 00:14	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 00:14	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 00:14	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 00:14	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 00:14	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 00:14	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 00:14	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 00:14	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 00:14	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 00:14	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 00:14	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 00:14	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 00:14	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 00:14	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 00:14	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 00:14	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 00:14	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 00:14	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 00:14	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 00:14	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 00:14	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 00:14	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 00:14	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/25/16 00:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		08/25/16 00:14	1
4-Bromofluorobenzene	94		70 - 130		08/25/16 00:14	1
Dibromofluoromethane (Surr)	92		70 - 130		08/25/16 00:14	1
Toluene-d8 (Surr)	97		70 - 130		08/25/16 00:14	1

Lab Sample ID: LCS 460-386589/3
Matrix: Water
Analysis Batch: 386589

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	19.7		ug/L		98	70 - 130
1,1,2,2-Tetrachloroethane	20.0	21.6		ug/L		108	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	23.7		ug/L		119	70 - 130
1,1,2-Trichloroethane	20.0	19.0		ug/L		95	70 - 130
1,1-Dichloroethane	20.0	20.7		ug/L		103	70 - 130
1,1-Dichloroethene	20.0	20.3		ug/L		102	70 - 130
1,2,3-Trichlorobenzene	20.0	22.6		ug/L		113	70 - 130
1,2,4-Trichlorobenzene	20.0	22.5		ug/L		113	70 - 130
1,2-Dichlorobenzene	20.0	21.3		ug/L		107	70 - 130
1,2-Dichloroethane	20.0	19.0		ug/L		95	70 - 130
1,2-Dichloropropane	20.0	20.5		ug/L		103	70 - 130
1,3-Dichlorobenzene	20.0	21.7		ug/L		108	70 - 130
1,4-Dichlorobenzene	20.0	22.0		ug/L		110	70 - 130
2-Butanone (MEK)	100	99.4		ug/L		99	40 - 160
2-Hexanone	100	95.9		ug/L		96	40 - 160
4-Methyl-2-pentanone (MIBK)	100	110		ug/L		110	40 - 160
Acetone	100	87.1		ug/L		87	40 - 160
Benzene	20.0	20.6		ug/L		103	70 - 130
Bromoform	20.0	15.7		ug/L		78	70 - 130
Bromomethane	20.0	18.6		ug/L		93	40 - 160
Carbon disulfide	20.0	20.2		ug/L		101	40 - 160
Carbon tetrachloride	20.0	20.6		ug/L		103	70 - 130
Chlorobenzene	20.0	20.5		ug/L		103	70 - 130
Chlorobromomethane	20.0	19.4		ug/L		97	70 - 130
Chlorodibromomethane	20.0	17.5		ug/L		87	70 - 130
Chloroethane	20.0	20.3		ug/L		101	40 - 160
Chloroform	20.0	19.9		ug/L		99	70 - 130
Chloromethane	20.0	18.1		ug/L		90	40 - 160
cis-1,2-Dichloroethene	20.0	19.4		ug/L		97	70 - 130
cis-1,3-Dichloropropene	20.0	19.9		ug/L		99	70 - 130
Cyclohexane	20.0	21.3		ug/L		106	70 - 130
Dichlorobromomethane	20.0	18.7		ug/L		93	70 - 130
Dichlorodifluoromethane	20.0	17.6		ug/L		88	40 - 160
Ethylbenzene	20.0	20.8		ug/L		104	70 - 130
Isopropylbenzene	20.0	21.1		ug/L		105	70 - 130
Methyl acetate	100	99.7		ug/L		100	70 - 130
Methyl tert-butyl ether	20.0	19.1		ug/L		96	70 - 130
Methylcyclohexane	20.0	21.6		ug/L		108	70 - 130
Methylene Chloride	20.0	19.5		ug/L		98	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-386589/3
Matrix: Water
Analysis Batch: 386589

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Styrene			20.0	20.4		ug/L		102	70 - 130		
Tetrachloroethene			20.0	21.2		ug/L		106	70 - 130		
Toluene			20.0	20.7		ug/L		103	70 - 130		
trans-1,2-Dichloroethene			20.0	19.7		ug/L		99	70 - 130		
trans-1,3-Dichloropropene			20.0	19.8		ug/L		99	70 - 130		
Trichloroethene			20.0	19.1		ug/L		96	70 - 130		
Trichlorofluoromethane			20.0	19.3		ug/L		96	40 - 160		
Vinyl chloride			20.0	19.7		ug/L		98	70 - 130		
Xylenes, Total			40.0	40.7		ug/L		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene	*95*		*70 - 130*
Dibromofluoromethane (Surr)	*93*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 460-386589/4
Matrix: Water
Analysis Batch: 386589

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane			20.0	19.3		ug/L		97	70 - 130	2	20
1,1,2,2-Tetrachloroethane			20.0	22.0		ug/L		110	70 - 130	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane			20.0	22.4		ug/L		112	70 - 130	6	20
1,1,2-Trichloroethane			20.0	20.3		ug/L		101	70 - 130	6	20
1,1-Dichloroethane			20.0	20.7		ug/L		103	70 - 130	0	20
1,1-Dichloroethene			20.0	19.1		ug/L		96	70 - 130	6	20
1,2,3-Trichlorobenzene			20.0	23.8		ug/L		119	70 - 130	5	20
1,2,4-Trichlorobenzene			20.0	22.5		ug/L		113	70 - 130	0	20
1,2-Dichlorobenzene			20.0	22.2		ug/L		111	70 - 130	4	20
1,2-Dichloroethane			20.0	18.3		ug/L		92	70 - 130	3	20
1,2-Dichloropropane			20.0	21.1		ug/L		106	70 - 130	3	20
1,3-Dichlorobenzene			20.0	22.0		ug/L		110	70 - 130	1	20
1,4-Dichlorobenzene			20.0	22.6		ug/L		113	70 - 130	3	20
2-Butanone (MEK)			100	93.9		ug/L		94	40 - 160	6	20
2-Hexanone			100	95.5		ug/L		95	40 - 160	0	20
4-Methyl-2-pentanone (MIBK)			100	101		ug/L		101	40 - 160	8	20
Acetone			100	79.0		ug/L		79	40 - 160	10	20
Benzene			20.0	22.1		ug/L		110	70 - 130	7	20
Bromoform			20.0	15.7		ug/L		78	70 - 130	0	20
Bromomethane			20.0	20.0		ug/L		100	40 - 160	7	20
Carbon disulfide			20.0	19.8		ug/L		99	40 - 160	2	20
Carbon tetrachloride			20.0	20.0		ug/L		100	70 - 130	3	20
Chlorobenzene			20.0	21.1		ug/L		105	70 - 130	3	20
Chlorobromomethane			20.0	19.8		ug/L		99	70 - 130	2	20
Chlorodibromomethane			20.0	18.4		ug/L		92	70 - 130	5	20
Chloroethane			20.0	20.2		ug/L		101	40 - 160	0	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-386589/4
Matrix: Water
Analysis Batch: 386589

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroform			20.0	19.7		ug/L		99	70 - 130	1	20
Chloromethane			20.0	18.6		ug/L		93	40 - 160	3	20
cis-1,2-Dichloroethene			20.0	19.9		ug/L		99	70 - 130	2	20
cis-1,3-Dichloropropene			20.0	20.9		ug/L		105	70 - 130	5	20
Cyclohexane			20.0	21.2		ug/L		106	70 - 130	0	20
Dichlorobromomethane			20.0	18.9		ug/L		94	70 - 130	1	20
Dichlorodifluoromethane			20.0	18.7		ug/L		94	40 - 160	6	20
Ethylbenzene			20.0	20.9		ug/L		105	70 - 130	1	20
Isopropylbenzene			20.0	21.4		ug/L		107	70 - 130	2	20
Methyl acetate			100	100		ug/L		100	70 - 130	0	20
Methyl tert-butyl ether			20.0	18.8		ug/L		94	70 - 130	2	20
Methylcyclohexane			20.0	22.3		ug/L		111	70 - 130	3	20
Methylene Chloride			20.0	19.4		ug/L		97	70 - 130	1	20
Styrene			20.0	21.1		ug/L		106	70 - 130	3	20
Tetrachloroethene			20.0	21.2		ug/L		106	70 - 130	0	20
Toluene			20.0	21.5		ug/L		107	70 - 130	4	20
trans-1,2-Dichloroethene			20.0	19.8		ug/L		99	70 - 130	1	20
trans-1,3-Dichloropropene			20.0	20.1		ug/L		100	70 - 130	1	20
Trichloroethene			20.0	19.4		ug/L		97	70 - 130	2	20
Trichlorofluoromethane			20.0	20.4		ug/L		102	40 - 160	6	20
Vinyl chloride			20.0	19.7		ug/L		99	70 - 130	0	20
Xylenes, Total			40.0	42.0		ug/L		105	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene	*95*		*70 - 130*
Dibromofluoromethane (Surr)	*93*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-386835/7
Matrix: Water
Analysis Batch: 386835

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/25/16 21:57	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/25/16 21:57	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/25/16 21:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/25/16 21:57*	*1*
4-Bromofluorobenzene	*90*		*70 - 130*		*08/25/16 21:57*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-386835/3
Matrix: Water
Analysis Batch: 386835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.500	0.294		ug/L		59	40 - 160
Ethylene Dibromide	0.500	0.501		ug/L		100	70 - 130
1,2,3-Trichloropropane	0.500	0.425		ug/L		85	40 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene	*98*		*70 - 130*

Lab Sample ID: LCSD 460-386835/4
Matrix: Water
Analysis Batch: 386835

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.500	0.299		ug/L		60	40 - 160	2	20
Ethylene Dibromide	0.500	0.525		ug/L		105	70 - 130	5	20
1,2,3-Trichloropropane	0.500	0.427		ug/L		85	40 - 160	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*
4-Bromofluorobenzene	*99*		*70 - 130*

Lab Sample ID: MB 460-386888/7
Matrix: Water
Analysis Batch: 386888

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/26/16 10:24	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/26/16 10:24	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/26/16 10:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*08/26/16 10:24*	*1*
4-Bromofluorobenzene	*98*		*70 - 130*		*08/26/16 10:24*	*1*

Lab Sample ID: LCS 460-386888/3
Matrix: Water
Analysis Batch: 386888

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.500	0.314		ug/L		63	40 - 160
Ethylene Dibromide	0.500	0.460		ug/L		92	70 - 130
1,2,3-Trichloropropane	0.500	0.427		ug/L		85	40 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*
4-Bromofluorobenzene	*102*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-386888/4
Matrix: Water
Analysis Batch: 386888

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.500	0.363		ug/L		73	40 - 160	14	20
Ethylene Dibromide			0.500	0.509		ug/L		102	70 - 130	10	20
1,2,3-Trichloropropane			0.500	0.488		ug/L		98	40 - 160	13	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene	*104*		*70 - 130*

Lab Sample ID: MB 460-387169/8
Matrix: Water
Analysis Batch: 387169

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/27/16 13:59	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/27/16 13:59	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/27/16 13:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/27/16 13:59*	*1*
4-Bromofluorobenzene	*96*		*70 - 130*		*08/27/16 13:59*	*1*

Lab Sample ID: LCS 460-387169/4
Matrix: Water
Analysis Batch: 387169

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane			0.500	0.303		ug/L		61	40 - 160
Ethylene Dibromide			0.500	0.467		ug/L		93	70 - 130
1,2,3-Trichloropropane			0.500	0.410		ug/L		82	40 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene	*102*		*70 - 130*

Lab Sample ID: 460-119057-A-1 MS
Matrix: Water
Analysis Batch: 387169

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.0070	U	0.500	0.305		ug/L		61	40 - 160
Ethylene Dibromide	0.0060	U	0.500	0.465		ug/L		93	70 - 130
1,2,3-Trichloropropane	0.011	U	0.500	0.413		ug/L		83	40 - 160

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*
4-Bromofluorobenzene	*104*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-119057-A-1 MSD
Matrix: Water
Analysis Batch: 387169

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.0070	U	0.500	0.309		ug/L		62	40 - 160	1	20
Ethylene Dibromide	0.0060	U	0.500	0.489		ug/L		98	70 - 130	5	20
1,2,3-Trichloropropane	0.011	U	0.500	0.435		ug/L		87	40 - 160	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene	*101*		*70 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-387194/1-A
Matrix: Water
Analysis Batch: 387913

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387194

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/27/16 12:54	08/31/16 18:06	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/27/16 12:54	08/31/16 18:06	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/27/16 12:54	08/31/16 18:06	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/27/16 12:54	08/31/16 18:06	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/27/16 12:54	08/31/16 18:06	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/27/16 12:54	08/31/16 18:06	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 18:06	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/27/16 12:54	08/31/16 18:06	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		08/27/16 12:54	08/31/16 18:06	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/27/16 12:54	08/31/16 18:06	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/27/16 12:54	08/31/16 18:06	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/27/16 12:54	08/31/16 18:06	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/27/16 12:54	08/31/16 18:06	1
Pentachlorophenol	2.2	U	20	2.2	ug/L		08/27/16 12:54	08/31/16 18:06	1
Bis(2-chloroethyl)ether	0.12	U	1.0	0.12	ug/L		08/27/16 12:54	08/31/16 18:06	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/27/16 12:54	08/31/16 18:06	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/27/16 12:54	08/31/16 18:06	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/27/16 12:54	08/31/16 18:06	1
Isophorone	0.67	U	10	0.67	ug/L		08/27/16 12:54	08/31/16 18:06	1
Naphthalene	0.80	U	10	0.80	ug/L		08/27/16 12:54	08/31/16 18:06	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/27/16 12:54	08/31/16 18:06	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/27/16 12:54	08/31/16 18:06	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/27/16 12:54	08/31/16 18:06	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 18:06	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/27/16 12:54	08/31/16 18:06	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/27/16 12:54	08/31/16 18:06	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/27/16 12:54	08/31/16 18:06	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/27/16 12:54	08/31/16 18:06	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/27/16 12:54	08/31/16 18:06	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/27/16 12:54	08/31/16 18:06	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/27/16 12:54	08/31/16 18:06	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 18:06	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-387194/1-A
Matrix: Water
Analysis Batch: 387913

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387194

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/27/16 12:54	08/31/16 18:06	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 18:06	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/27/16 12:54	08/31/16 18:06	1
Fluorene	0.80	U	10	0.80	ug/L		08/27/16 12:54	08/31/16 18:06	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/27/16 12:54	08/31/16 18:06	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/27/16 12:54	08/31/16 18:06	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 18:06	1
Hexachlorobenzene	0.47	U	1.0	0.47	ug/L		08/27/16 12:54	08/31/16 18:06	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/27/16 12:54	08/31/16 18:06	1
Anthracene	0.57	U	10	0.57	ug/L		08/27/16 12:54	08/31/16 18:06	1
Carbazole	0.85	U	10	0.85	ug/L		08/27/16 12:54	08/31/16 18:06	1
Di-n-butyl phthalate	1.08	J	10	0.82	ug/L		08/27/16 12:54	08/31/16 18:06	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/27/16 12:54	08/31/16 18:06	1
Pyrene	0.83	U	10	0.83	ug/L		08/27/16 12:54	08/31/16 18:06	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/27/16 12:54	08/31/16 18:06	1
Benzo[a]anthracene	0.55	U	1.0	0.55	ug/L		08/27/16 12:54	08/31/16 18:06	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/27/16 12:54	08/31/16 18:06	1
Bis(2-ethylhexyl) phthalate	0.72	U	2.0	0.72	ug/L		08/27/16 12:54	08/31/16 18:06	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/27/16 12:54	08/31/16 18:06	1
Benzo[b]fluoranthene	0.44	U	1.0	0.44	ug/L		08/27/16 12:54	08/31/16 18:06	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/27/16 12:54	08/31/16 18:06	1
Benzo[a]pyrene	0.16	U	1.0	0.16	ug/L		08/27/16 12:54	08/31/16 18:06	1
Indeno[1,2,3-cd]pyrene	0.21	U	1.0	0.21	ug/L		08/27/16 12:54	08/31/16 18:06	1
Dibenz(a,h)anthracene	0.090	U	1.0	0.090	ug/L		08/27/16 12:54	08/31/16 18:06	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/27/16 12:54	08/31/16 18:06	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/27/16 12:54	08/31/16 18:06	1
Acetophenone	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 18:06	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/27/16 12:54	08/31/16 18:06	1
Caprolactam	1.1	U	10	1.1	ug/L		08/27/16 12:54	08/31/16 18:06	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/27/16 12:54	08/31/16 18:06	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/27/16 12:54	08/31/16 18:06	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/27/16 12:54	08/31/16 18:06	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/27/16 12:54	08/31/16 18:06	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/27/16 12:54	08/31/16 18:06	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/27/16 12:54	08/31/16 18:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*92*		*30 - 130*	*08/27/16 12:54*	*08/31/16 18:06*	*1*
Phenol-d5 (Surr)	*17*		*15 - 110*	*08/27/16 12:54*	*08/31/16 18:06*	*1*
Terphenyl-d14 (Surr)	*90*		*30 - 130*	*08/27/16 12:54*	*08/31/16 18:06*	*1*
2,4,6-Tribromophenol (Surr)	*103*		*15 - 110*	*08/27/16 12:54*	*08/31/16 18:06*	*1*
2-Fluorophenol (Surr)	*38*		*15 - 110*	*08/27/16 12:54*	*08/31/16 18:06*	*1*
2-Fluorobiphenyl	*87*		*30 - 130*	*08/27/16 12:54*	*08/31/16 18:06*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-387194/2-A
Matrix: Water
Analysis Batch: 387913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387194

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	80.0	21.9		ug/L		27	20 - 160
2-Chlorophenol	80.0	63.7		ug/L		80	70 - 130
2-Methylphenol	80.0	51.6	*	ug/L		65	70 - 130
4-Methylphenol	80.0	44.0		ug/L		55	20 - 160
2-Nitrophenol	80.0	67.6		ug/L		84	70 - 130
2,4-Dimethylphenol	80.0	67.9		ug/L		85	70 - 130
2,4-Dichlorophenol	80.0	70.7		ug/L		88	70 - 130
4-Chloro-3-methylphenol	80.0	66.5		ug/L		83	20 - 160
2,4,6-Trichlorophenol	80.0	86.2		ug/L		108	70 - 130
2,4,5-Trichlorophenol	80.0	81.8		ug/L		102	20 - 160
2,4-Dinitrotoluene	80.0	72.8		ug/L		91	70 - 130
4-Nitrophenol	160	40.4		ug/L		25	20 - 160
4,6-Dinitro-2-methylphenol	160	146		ug/L		91	20 - 160
Pentachlorophenol	160	183		ug/L		114	20 - 160
Bis(2-chloroethyl)ether	80.0	64.5		ug/L		81	70 - 130
N-Nitrosodi-n-propylamine	80.0	80.7		ug/L		101	70 - 130
Hexachloroethane	80.0	66.8		ug/L		84	20 - 160
Nitrobenzene	80.0	76.8		ug/L		96	70 - 130
Isophorone	80.0	71.6		ug/L		90	70 - 130
Naphthalene	80.0	74.0		ug/L		93	70 - 130
4-Chloroaniline	80.0	65.6		ug/L		82	20 - 160
Hexachlorobutadiene	80.0	70.5		ug/L		88	70 - 130
2-Methylnaphthalene	80.0	72.4		ug/L		91	70 - 130
Hexachlorocyclopentadiene	80.0	54.7		ug/L		68	20 - 160
2-Chloronaphthalene	80.0	81.6		ug/L		102	70 - 130
2-Nitroaniline	80.0	75.0		ug/L		94	20 - 160
Dimethyl phthalate	80.0	75.4		ug/L		94	70 - 130
Acenaphthylene	80.0	76.1		ug/L		95	70 - 130
2,6-Dinitrotoluene	80.0	76.0		ug/L		95	70 - 130
3-Nitroaniline	80.0	65.3		ug/L		82	20 - 160
Acenaphthene	80.0	75.0		ug/L		94	70 - 130
Dibenzofuran	80.0	79.2		ug/L		99	70 - 130
2,4-Dinitrophenol	160	120		ug/L		75	20 - 160
Diethyl phthalate	80.0	74.3		ug/L		93	70 - 130
4-Chlorophenyl phenyl ether	80.0	79.8		ug/L		100	70 - 130
Fluorene	80.0	75.7		ug/L		95	70 - 130
4-Nitroaniline	80.0	62.3		ug/L		78	20 - 160
N-Nitrosodiphenylamine	80.0	74.4		ug/L		93	70 - 130
4-Bromophenyl phenyl ether	80.0	81.3		ug/L		102	70 - 130
Hexachlorobenzene	80.0	83.6		ug/L		104	70 - 130
Phenanthrene	80.0	78.5		ug/L		98	70 - 130
Anthracene	80.0	80.0		ug/L		100	70 - 130
Carbazole	80.0	85.8		ug/L		107	70 - 130
Di-n-butyl phthalate	80.0	90.1		ug/L		113	70 - 130
Fluoranthene	80.0	88.3		ug/L		110	70 - 130
Pyrene	80.0	68.2		ug/L		85	70 - 130
Butyl benzyl phthalate	80.0	77.2		ug/L		96	70 - 130
Benzo[a]anthracene	80.0	81.1		ug/L		101	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-387194/2-A
Matrix: Water
Analysis Batch: 387913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387194

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	80.0	78.3		ug/L		98	70 - 130
Bis(2-ethylhexyl) phthalate	80.0	79.6		ug/L		100	70 - 130
Di-n-octyl phthalate	80.0	79.0		ug/L		99	70 - 130
Benzo[b]fluoranthene	80.0	73.9		ug/L		92	70 - 130
Benzo[k]fluoranthene	80.0	85.9		ug/L		107	70 - 130
Benzo[a]pyrene	80.0	79.7		ug/L		100	70 - 130
Indeno[1,2,3-cd]pyrene	80.0	80.6		ug/L		101	70 - 130
Dibenz(a,h)anthracene	80.0	86.6		ug/L		108	70 - 130
Benzo[g,h,i]perylene	80.0	78.8		ug/L		99	70 - 130
1,1'-Biphenyl	80.0	90.8		ug/L		114	70 - 130
Acetophenone	80.0	76.5		ug/L		96	70 - 130
2,2'-oxybis[1-chloropropane]	80.0	82.4		ug/L		103	70 - 130
1,2,4,5-Tetrachlorobenzene	80.0	82.1		ug/L		103	70 - 130
2,3,4,6-Tetrachlorophenol	80.0	84.4		ug/L		105	70 - 130
3,3'-Dichlorobenzidine	80.0	83.4		ug/L		104	70 - 130
Bis(2-chloroethoxy)methane	80.0	74.0		ug/L		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*95*		*30 - 130*
Phenol-d5 (Surr)	*24*		*15 - 110*
Terphenyl-d14 (Surr)	*89*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*97*		*15 - 110*
2-Fluorophenol (Surr)	*36*		*15 - 110*
2-Fluorobiphenyl	*103*		*30 - 130*

Lab Sample ID: LCS 460-387194/4-A
Matrix: Water
Analysis Batch: 387913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387194

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzaldehyde	160	151		ug/L		95	20 - 160
Caprolactam	160	31.1	*	ug/L		19	20 - 160
Atrazine	160	133		ug/L		83	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*96*		*30 - 130*
Phenol-d5 (Surr)	*26*		*15 - 110*
Terphenyl-d14 (Surr)	*104*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*102*		*15 - 110*
2-Fluorophenol (Surr)	*48*		*15 - 110*
2-Fluorobiphenyl	*91*		*30 - 130*

Lab Sample ID: LCSD 460-387194/3-A
Matrix: Water
Analysis Batch: 387913

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 387194

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	80.0	23.8		ug/L		30	20 - 160	8	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-387194/3-A
Matrix: Water
Analysis Batch: 387913

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 387194

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chlorophenol	80.0	59.7		ug/L		75	70 - 130	6	20
2-Methylphenol	80.0	51.6	*	ug/L		65	70 - 130	0	20
4-Methylphenol	80.0	40.8		ug/L		51	20 - 160	8	20
2-Nitrophenol	80.0	60.0		ug/L		75	70 - 130	12	20
2,4-Dimethylphenol	80.0	61.4		ug/L		77	70 - 130	10	20
2,4-Dichlorophenol	80.0	59.6		ug/L		74	70 - 130	17	20
4-Chloro-3-methylphenol	80.0	61.9		ug/L		77	20 - 160	7	20
2,4,6-Trichlorophenol	80.0	64.1	*	ug/L		80	70 - 130	29	20
2,4,5-Trichlorophenol	80.0	70.8		ug/L		89	20 - 160	14	20
2,4-Dinitrotoluene	80.0	72.9		ug/L		91	70 - 130	0	20
4-Nitrophenol	160	33.4		ug/L		21	20 - 160	19	20
4,6-Dinitro-2-methylphenol	160	143		ug/L		89	20 - 160	2	20
Pentachlorophenol	160	175		ug/L		109	20 - 160	4	20
Bis(2-chloroethyl)ether	80.0	61.1		ug/L		76	70 - 130	6	20
N-Nitrosodi-n-propylamine	80.0	78.9		ug/L		99	70 - 130	2	20
Hexachloroethane	80.0	67.6		ug/L		85	20 - 160	1	20
Nitrobenzene	80.0	68.3		ug/L		85	70 - 130	12	20
Isophorone	80.0	63.5		ug/L		79	70 - 130	12	20
Naphthalene	80.0	61.1		ug/L		76	70 - 130	19	20
4-Chloroaniline	80.0	57.8		ug/L		72	20 - 160	13	20
Hexachlorobutadiene	80.0	63.3		ug/L		79	70 - 130	11	20
2-Methylnaphthalene	80.0	63.0		ug/L		79	70 - 130	14	20
Hexachlorocyclopentadiene	80.0	50.5		ug/L		63	20 - 160	8	20
2-Chloronaphthalene	80.0	69.3		ug/L		87	70 - 130	16	20
2-Nitroaniline	80.0	63.3		ug/L		79	20 - 160	17	20
Dimethyl phthalate	80.0	68.8		ug/L		86	70 - 130	9	20
Acenaphthylene	80.0	73.1		ug/L		91	70 - 130	4	20
2,6-Dinitrotoluene	80.0	67.6		ug/L		85	70 - 130	12	20
3-Nitroaniline	80.0	61.6		ug/L		77	20 - 160	6	20
Acenaphthene	80.0	65.0		ug/L		81	70 - 130	14	20
Dibenzofuran	80.0	70.9		ug/L		89	70 - 130	11	20
2,4-Dinitrophenol	160	119		ug/L		74	20 - 160	1	20
Diethyl phthalate	80.0	68.8		ug/L		86	70 - 130	8	20
4-Chlorophenyl phenyl ether	80.0	70.1		ug/L		88	70 - 130	13	20
Fluorene	80.0	68.1		ug/L		85	70 - 130	11	20
4-Nitroaniline	80.0	56.5		ug/L		71	20 - 160	10	20
N-Nitrosodiphenylamine	80.0	72.5		ug/L		91	70 - 130	3	20
4-Bromophenyl phenyl ether	80.0	70.8		ug/L		89	70 - 130	14	20
Hexachlorobenzene	80.0	79.8		ug/L		100	70 - 130	5	20
Phenanthrene	80.0	76.7		ug/L		96	70 - 130	2	20
Anthracene	80.0	77.6		ug/L		97	70 - 130	3	20
Carbazole	80.0	79.3		ug/L		99	70 - 130	8	20
Di-n-butyl phthalate	80.0	85.6		ug/L		107	70 - 130	5	20
Fluoranthene	80.0	80.8		ug/L		101	70 - 130	9	20
Pyrene	80.0	67.8		ug/L		85	70 - 130	1	20
Butyl benzyl phthalate	80.0	75.1		ug/L		94	70 - 130	3	20
Benzo[a]anthracene	80.0	71.2		ug/L		89	70 - 130	13	20
Chrysene	80.0	69.9		ug/L		87	70 - 130	11	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-387194/3-A
Matrix: Water
Analysis Batch: 387913

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 387194

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate			80.0	73.8		ug/L		92	70 - 130	8	20
Di-n-octyl phthalate			80.0	85.4		ug/L		107	70 - 130	8	20
Benzo[b]fluoranthene			80.0	83.5		ug/L		104	70 - 130	12	20
Benzo[k]fluoranthene			80.0	77.8		ug/L		97	70 - 130	10	20
Benzo[a]pyrene			80.0	81.9		ug/L		102	70 - 130	3	20
Indeno[1,2,3-cd]pyrene			80.0	89.2		ug/L		111	70 - 130	10	20
Dibenz(a,h)anthracene			80.0	92.5		ug/L		116	70 - 130	7	20
Benzo[g,h,i]perylene			80.0	87.8		ug/L		110	70 - 130	11	20
1,1'-Biphenyl			80.0	75.6		ug/L		95	70 - 130	18	20
Acetophenone			80.0	78.0		ug/L		97	70 - 130	2	20
2,2'-oxybis[1-chloropropane]			80.0	79.6		ug/L		100	70 - 130	3	20
1,2,4,5-Tetrachlorobenzene			80.0	68.3		ug/L		85	70 - 130	18	20
2,3,4,6-Tetrachlorophenol			80.0	75.9		ug/L		95	70 - 130	11	20
3,3'-Dichlorobenzidine			80.0	73.0		ug/L		91	70 - 130	13	20
Bis(2-chloroethoxy)methane			80.0	69.6		ug/L		87	70 - 130	6	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*87*		*30 - 130*
Phenol-d5 (Surr)	*29*		*15 - 110*
Terphenyl-d14 (Surr)	*87*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*91*		*15 - 110*
2-Fluorophenol (Surr)	*44*		*15 - 110*
2-Fluorobiphenyl	*94*		*30 - 130*

Lab Sample ID: LCSD 460-387194/5-A
Matrix: Water
Analysis Batch: 387913

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 387194

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzaldehyde			160	157		ug/L		98	20 - 160	4	20
Caprolactam			160	30.3	*	ug/L		19	20 - 160	2	20
Atrazine			160	136		ug/L		85	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*84*		*30 - 130*
Phenol-d5 (Surr)	*20*		*15 - 110*
Terphenyl-d14 (Surr)	*94*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*97*		*15 - 110*
2-Fluorophenol (Surr)	*40*		*15 - 110*
2-Fluorobiphenyl	*85*		*30 - 130*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: LCS 460-387194/6-A
Matrix: Water
Analysis Batch: 387918

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387194

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.800	0.714		ug/L		89	70 - 130
Benzo[a]pyrene	0.800	0.617		ug/L		77	70 - 130
Benzo[b]fluoranthene	0.800	0.648		ug/L		81	70 - 130
Bis(2-chloroethyl)ether	0.800	0.818		ug/L		102	70 - 130
Dibenz(a,h)anthracene	0.800	0.641		ug/L		80	70 - 130
Hexachlorobenzene	0.800	0.716		ug/L		90	70 - 130
Indeno[1,2,3-cd]pyrene	0.800	0.649		ug/L		81	70 - 130
Pentachlorophenol	1.60	0.602		ug/L		38	20 - 160

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-386713/1-A
Matrix: Water
Analysis Batch: 386920

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386713

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 10:38	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 10:38	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 10:38	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 10:38	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 10:38	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 10:38	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 10:38	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 10:38	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 10:38	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 10:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*30 - 150*	*08/25/16 08:37*	*08/26/16 10:38*	*1*
Tetrachloro-m-xylene	*84*		*30 - 150*	*08/25/16 08:37*	*08/26/16 10:38*	*1*
DCB Decachlorobiphenyl	*85*		*30 - 150*	*08/25/16 08:37*	*08/26/16 10:38*	*1*
DCB Decachlorobiphenyl	*92*		*30 - 150*	*08/25/16 08:37*	*08/26/16 10:38*	*1*

Lab Sample ID: LCS 460-386713/2-A
Matrix: Water
Analysis Batch: 386920

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386713

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	4.00	5.17		ug/L		129	40 - 140
PCB-1016	4.00	5.42		ug/L		135	40 - 140
PCB-1260	4.00	4.28		ug/L		107	40 - 140
PCB-1260	4.00	4.42		ug/L		110	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*113*		*30 - 150*
Tetrachloro-m-xylene	*115*		*30 - 150*
DCB Decachlorobiphenyl	*92*		*30 - 150*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 460-386713/2-A
Matrix: Water
Analysis Batch: 386920

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386713

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*94*		*30 - 150*

Lab Sample ID: LCSD 460-386713/3-A
Matrix: Water
Analysis Batch: 386920

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 386713

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			4.00	4.83		ug/L		121	40 - 140	7	20
PCB-1016			4.00	5.19		ug/L		130	40 - 140	4	20
PCB-1260			4.00	4.04		ug/L		101	40 - 140	6	20
PCB-1260			4.00	4.34		ug/L		109	40 - 140	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*106*		*30 - 150*
Tetrachloro-m-xylene	*111*		*30 - 150*
DCB Decachlorobiphenyl	*86*		*30 - 150*
DCB Decachlorobiphenyl	*92*		*30 - 150*

Lab Sample ID: MB 460-386833/1-A
Matrix: Water
Analysis Batch: 386921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386833

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 09:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*68*		*30 - 150*	*08/25/16 19:20*	*08/26/16 09:05*	*1*
Tetrachloro-m-xylene	*74*		*30 - 150*	*08/25/16 19:20*	*08/26/16 09:05*	*1*
DCB Decachlorobiphenyl	*118*		*30 - 150*	*08/25/16 19:20*	*08/26/16 09:05*	*1*
DCB Decachlorobiphenyl	*121*		*30 - 150*	*08/25/16 19:20*	*08/26/16 09:05*	*1*

Lab Sample ID: LCS 460-386833/2-A
Matrix: Water
Analysis Batch: 386921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386833

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016			4.00	4.20		ug/L		105	40 - 140
PCB-1016			4.00	4.29		ug/L		107	40 - 140

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 460-386833/2-A
Matrix: Water
Analysis Batch: 386921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386833

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1260			4.00	5.52		ug/L		138	40 - 140		
PCB-1260			4.00	5.84	*	ug/L		146	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*59*		*30 - 150*
Tetrachloro-m-xylene	*65*		*30 - 150*
DCB Decachlorobiphenyl	*141*		*30 - 150*
DCB Decachlorobiphenyl	*141*		*30 - 150*

Lab Sample ID: LCSD 460-386833/3-A
Matrix: Water
Analysis Batch: 386921

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 386833

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			4.00	4.37		ug/L		109	40 - 140	2	20
PCB-1016			4.00	4.28		ug/L		107	40 - 140	2	20
PCB-1260			4.00	6.05	*	ug/L		151	40 - 140	4	20
PCB-1260			4.00	5.80	*	ug/L		145	40 - 140	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*80*		*30 - 150*
Tetrachloro-m-xylene	*79*		*30 - 150*
DCB Decachlorobiphenyl	*132*		*30 - 150*
DCB Decachlorobiphenyl	*121*		*30 - 150*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography - RA

Lab Sample ID: MB 460-386713/1-A
Matrix: Water
Analysis Batch: 386921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386713

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total - RA	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 13:41	1
PCB-1016 - RA	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 13:41	1
PCB-1221 - RA	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 13:41	1
PCB-1232 - RA	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 13:41	1
PCB-1242 - RA	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 13:41	1
PCB-1248 - RA	0.098	U	0.40	0.098	ug/L		08/25/16 08:37	08/26/16 13:41	1
PCB-1254 - RA	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 13:41	1
PCB-1260 - RA	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 13:41	1
PCB-1262 - RA	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 13:41	1
PCB-1268 - RA	0.084	U	0.40	0.084	ug/L		08/25/16 08:37	08/26/16 13:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene - RA	*84*		*30 - 150*	*08/25/16 08:37*	*08/26/16 13:41*	*1*
Tetrachloro-m-xylene - RA	*86*		*30 - 150*	*08/25/16 08:37*	*08/26/16 13:41*	*1*
DCB Decachlorobiphenyl - RA	*119*		*30 - 150*	*08/25/16 08:37*	*08/26/16 13:41*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography - RA (Continued)

Lab Sample ID: MB 460-386713/1-A
Matrix: Water
Analysis Batch: 386921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386713

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl - RA	95		30 - 150	08/25/16 08:37	08/26/16 13:41	1

Lab Sample ID: LCS 460-386713/2-A
Matrix: Water
Analysis Batch: 386921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386713

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016 - RA			4.00	4.78		ug/L		119	40 - 140		
PCB-1016 - RA			4.00	5.08		ug/L		127	40 - 140		
PCB-1260 - RA			4.00	5.21		ug/L		130	40 - 140		
PCB-1260 - RA			4.00	4.51		ug/L		113	40 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene - RA	125		30 - 150
Tetrachloro-m-xylene - RA	110		30 - 150
DCB Decachlorobiphenyl - RA	112		30 - 150
DCB Decachlorobiphenyl - RA	95		30 - 150

Lab Sample ID: LCSD 460-386713/3-A
Matrix: Water
Analysis Batch: 386921

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 386713

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016 - RA			4.00	4.11		ug/L		103	40 - 140	15	20
PCB-1016 - RA			4.00	4.97		ug/L		124	40 - 140	2	20
PCB-1260 - RA			4.00	4.55		ug/L		114	40 - 140	1	20
PCB-1260 - RA			4.00	4.60		ug/L		115	40 - 140	13	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene - RA	107		30 - 150
Tetrachloro-m-xylene - RA	107		30 - 150
DCB Decachlorobiphenyl - RA	98		30 - 150
DCB Decachlorobiphenyl - RA	94		30 - 150

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 460-387412/3
Matrix: Water
Analysis Batch: 387412

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			08/29/16 19:49	1
Sulfate	0.11	U	0.60	0.11	mg/L			08/29/16 19:49	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 460-387412/4
Matrix: Water
Analysis Batch: 387412

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	4.947		mg/L		99	90 - 110
Chloride	1.50	1.511		mg/L		101	90 - 110
Fluoride	1.00	1.028		mg/L		103	90 - 110
Sulfate	7.50	7.216		mg/L		96	90 - 110

Lab Sample ID: LCSD 460-387412/5
Matrix: Water
Analysis Batch: 387412

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	4.862		mg/L		97	90 - 110	2	15
Chloride	1.50	1.434		mg/L		96	90 - 110	5	15
Fluoride	1.00	0.991		mg/L		99	90 - 110	4	15
Sulfate	7.50	7.164		mg/L		96	90 - 110	1	15

Lab Sample ID: 460-119025-6 MS
Matrix: Water
Analysis Batch: 387412

Client Sample ID: SW-MRB-01-082216
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.081	U	5.00	5.031		mg/L		101	90 - 110
Chloride	1.83		1.50	3.284		mg/L		97	90 - 110
Fluoride	0.056	J	1.00	1.042		mg/L		99	90 - 110
Sulfate	4.97		7.50	12.37		mg/L		99	90 - 110

Lab Sample ID: 460-119025-6 MSD
Matrix: Water
Analysis Batch: 387412

Client Sample ID: SW-MRB-01-082216
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.081	U	5.00	4.917		mg/L		98	90 - 110	2	15
Chloride	1.83		1.50	3.206		mg/L		92	90 - 110	2	15
Fluoride	0.056	J	1.00	1.035		mg/L		98	90 - 110	1	15
Sulfate	4.97		7.50	12.32		mg/L		98	90 - 110	0	15

Lab Sample ID: 460-119025-6 DU
Matrix: Water
Analysis Batch: 387412

Client Sample ID: SW-MRB-01-082216
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	1.83		1.829		mg/L		0.2	15
Sulfate	4.97		5.011		mg/L		0.8	15

Lab Sample ID: MB 460-387602/3
Matrix: Water
Analysis Batch: 387602

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			08/30/16 12:14	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 460-387602/3
Matrix: Water
Analysis Batch: 387602

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	0.11	U	0.60	0.11	mg/L			08/30/16 12:14	1

Lab Sample ID: LCS 460-387602/4
Matrix: Water
Analysis Batch: 387602

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.022		mg/L		100	90 - 110
Chloride	1.50	1.488		mg/L		99	90 - 110
Fluoride	1.00	1.023		mg/L		102	90 - 110
Sulfate	7.50	7.376		mg/L		98	90 - 110

Lab Sample ID: LCSD 460-387602/5
Matrix: Water
Analysis Batch: 387602

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	4.988		mg/L		100	90 - 110	1	15
Chloride	1.50	1.482		mg/L		99	90 - 110	0	15
Fluoride	1.00	1.053		mg/L		105	90 - 110	3	15
Sulfate	7.50	7.451		mg/L		99	90 - 110	1	15

Lab Sample ID: 460-119025-3 MS
Matrix: Water
Analysis Batch: 387602

Client Sample ID: SW-PAB-02-082216
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.16	U	10.0	9.919		mg/L		99	90 - 110
Chloride	5.96	F1 D	3.00	9.438	E F1	mg/L		116	90 - 110
Fluoride	0.14	J D	2.00	2.148		mg/L		100	90 - 110
Sulfate	1.65	F1 D	15.0	15.10		mg/L		90	90 - 110

Lab Sample ID: 460-119025-3 MSD
Matrix: Water
Analysis Batch: 387602

Client Sample ID: SW-PAB-02-082216
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.16	U	10.0	9.860		mg/L		99	90 - 110	1	15
Chloride	5.96	F1 D	3.00	9.336	E F1	mg/L		112	90 - 110	1	15
Fluoride	0.14	J D	2.00	2.089		mg/L		97	90 - 110	3	15
Sulfate	1.65	F1 D	15.0	14.90	F1	mg/L		88	90 - 110	1	15

Lab Sample ID: MB 460-388332/3
Matrix: Water
Analysis Batch: 388332

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			09/02/16 06:38	1
Sulfate	0.11	U	0.60	0.11	mg/L			09/02/16 06:38	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 460-388332/5
Matrix: Water
Analysis Batch: 388332

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.361		mg/L		107	90 - 110
Chloride	1.50	1.551		mg/L		103	90 - 110
Fluoride	1.00	1.095		mg/L		110	90 - 110
Sulfate	7.50	7.643		mg/L		102	90 - 110

Lab Sample ID: LCSD 460-388332/6
Matrix: Water
Analysis Batch: 388332

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	5.475		mg/L		110	90 - 110	2	15
Chloride	1.50	1.563		mg/L		104	90 - 110	1	15
Fluoride	1.00	1.099		mg/L		110	90 - 110	0	15
Sulfate	7.50	7.751		mg/L		103	90 - 110	1	15

Method: 9056A - Anions, Ion Chromatography - DL

Lab Sample ID: 460-119025-3 DU
Matrix: Water
Analysis Batch: 387602

Client Sample ID: SW-PAB-02-082216
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride - DL	5.96	F1 D	5.951		mg/L		0.2	15
Sulfate - DL	1.65	F1 D	1.611		mg/L		3	15

Lab Sample ID: 460-119025-9 MS
Matrix: Water
Analysis Batch: 388332

Client Sample ID: RW-2(452-462)-082216
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride - DL	636	D F1	300	1006	E F1	mg/L		123	90 - 110
Sulfate - DL	375	D F1	1500	1670	F1	mg/L		86	90 - 110

Lab Sample ID: 460-119025-9 MSD
Matrix: Water
Analysis Batch: 388332

Client Sample ID: RW-2(452-462)-082216
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride - DL	636	D F1	300	1012	E F1	mg/L		125	90 - 110	1	15
Sulfate - DL	375	D F1	1500	1709	F1	mg/L		89	90 - 110	2	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 460-387370/1-A ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/29/16 07:58	09/02/16 03:20	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-387370/1-A ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.71	U	2.0	0.71	ug/L		08/29/16 07:58	09/02/16 03:20	2
Barium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 03:20	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/29/16 07:58	09/02/16 03:20	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/29/16 07:58	09/02/16 03:20	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 03:20	2
Chromium	1.5	U	4.0	1.5	ug/L		08/29/16 07:58	09/02/16 03:20	2
Copper	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 03:20	2
Manganese	3.0	U	8.0	3.0	ug/L		08/29/16 07:58	09/02/16 03:20	2
Nickel	1.6	U	4.0	1.6	ug/L		08/29/16 07:58	09/02/16 03:20	2
Lead	0.44	U	1.2	0.44	ug/L		08/29/16 07:58	09/02/16 03:20	2
Antimony	0.76	U	2.0	0.76	ug/L		08/29/16 07:58	09/02/16 03:20	2
Selenium	0.79	U	10.0	0.79	ug/L		08/29/16 07:58	09/02/16 03:20	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/29/16 07:58	09/02/16 03:20	2
Zinc	6.5	U	16.0	6.5	ug/L		08/29/16 07:58	09/02/16 03:20	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/29/16 07:58	09/02/16 03:20	2
Sodium	87.6	U	200	87.6	ug/L		08/29/16 07:58	09/02/16 03:20	2
Magnesium	68.4	U	200	68.4	ug/L		08/29/16 07:58	09/02/16 03:20	2
Potassium	74.8	U	200	74.8	ug/L		08/29/16 07:58	09/02/16 03:20	2
Calcium	69.5	U	200	69.5	ug/L		08/29/16 07:58	09/02/16 03:20	2
Iron	49.1	U	120	49.1	ug/L		08/29/16 07:58	09/02/16 03:20	2
Thallium	0.31	U	0.80	0.31	ug/L		08/29/16 07:58	09/02/16 03:20	2

Lab Sample ID: LCS 460-387370/2-A ^2
Matrix: Water
Analysis Batch: 388143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	20.48		ug/L		82	80 - 120
Arsenic	50.0	49.27		ug/L		99	80 - 120
Barium	50.0	53.40		ug/L		107	80 - 120
Beryllium	25.0	26.02		ug/L		104	80 - 120
Cadmium	25.0	25.26		ug/L		101	80 - 120
Cobalt	25.0	25.34		ug/L		101	80 - 120
Chromium	50.0	52.61		ug/L		105	80 - 120
Copper	50.0	51.28		ug/L		103	80 - 120
Manganese	250	277.6		ug/L		111	80 - 120
Nickel	50.0	51.11		ug/L		102	80 - 120
Lead	25.0	26.94		ug/L		108	80 - 120
Antimony	25.0	26.17		ug/L		105	80 - 120
Selenium	50.0	49.06		ug/L		98	80 - 120
Vanadium	50.0	50.42		ug/L		101	80 - 120
Zinc	250	259.4		ug/L		104	80 - 120
Aluminum	2500	2548		ug/L		102	80 - 120
Magnesium	2500	2598		ug/L		104	80 - 120
Potassium	2500	2630		ug/L		105	80 - 120
Calcium	2500	2706		ug/L		108	80 - 120
Iron	2500	2584		ug/L		103	80 - 120
Thallium	20.0	20.08		ug/L		100	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-387370/2-A ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387370

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sodium			2500	2421		ug/L		97	80 - 120		

Lab Sample ID: 460-119005-W-12-D MS ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Silver	1.5	U	25.0	19.15		ug/L		77	75 - 125		
Arsenic	0.71	U	50.0	46.43		ug/L		93	75 - 125		
Barium	125		50.0	174.9		ug/L		99	75 - 125		
Beryllium	0.29	U	25.0	26.87		ug/L		107	75 - 125		
Cadmium	0.72	U	25.0	24.27		ug/L		97	75 - 125		
Cobalt	1.5	U	25.0	24.46		ug/L		98	75 - 125		
Chromium	1.5	U	50.0	49.73		ug/L		99	75 - 125		
Copper	1.6	U	50.0	48.28		ug/L		97	75 - 125		
Manganese	253		250	499.3		ug/L		98	75 - 125		
Nickel	1.6	J	50.0	50.11		ug/L		100	75 - 125		
Lead	0.44	U	25.0	26.12		ug/L		104	75 - 125		
Antimony	0.76	U	25.0	25.91		ug/L		104	75 - 125		
Selenium	0.79	U	50.0	45.44		ug/L		91	75 - 125		
Vanadium	1.4	U	50.0	49.39		ug/L		99	75 - 125		
Zinc	6.5	U	250	247.5		ug/L		99	75 - 125		
Aluminum	33.4	J	2500	2357		ug/L		93	75 - 125		
Sodium	140000		2500	139200	4	ug/L		-43	75 - 125		
Magnesium	6120		2500	8391		ug/L		91	75 - 125		
Potassium	2790		2500	5149		ug/L		94	75 - 125		
Calcium	44600		2500	46120	4	ug/L		60	75 - 125		
Iron	49.1	U	2500	2517		ug/L		101	75 - 125		
Thallium	0.31	U	20.0	20.12		ug/L		101	75 - 125		

Lab Sample ID: 460-119005-W-12-C DU ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Silver	1.5	U		1.5	U	ug/L				NC	20
Arsenic	0.71	U		0.71	U	ug/L				NC	20
Barium	125			123.1		ug/L				2	20
Beryllium	0.29	U		0.29	U	ug/L				NC	20
Cadmium	0.72	U		0.72	U	ug/L				NC	20
Cobalt	1.5	U		1.5	U	ug/L				NC	20
Chromium	1.5	U		1.5	U	ug/L				NC	20
Copper	1.6	U		1.6	U	ug/L				NC	20
Manganese	253			251.0		ug/L				0.8	20
Nickel	1.6	J		1.6	U	ug/L				NC	20
Lead	0.44	U		0.44	U	ug/L				NC	20
Antimony	0.76	U		0.76	U	ug/L				NC	20
Selenium	0.79	U		0.79	U	ug/L				NC	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119005-W-12-C DU ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Vanadium	1.4	U	1.4	U	ug/L		NC	20
Zinc	6.5	U	6.5	U	ug/L		NC	20
Aluminum	33.4	J	34.80	J	ug/L		4	20
Sodium	140000		139000		ug/L		0.9	20
Magnesium	6120		6038		ug/L		1	20
Potassium	2790		2761		ug/L		1	20
Calcium	44600		44120		ug/L		1	20
Iron	49.1	U	49.1	U	ug/L		NC	20
Thallium	0.31	U	0.31	U	ug/L		NC	20

Lab Sample ID: LCS 460-387604/2-A ^2
Matrix: Water
Analysis Batch: 387734

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387604

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	10.0	8.17		ug/L		82	80 - 120
Arsenic	20.0	19.03		ug/L		95	80 - 120
Barium	20.0	18.88		ug/L		94	80 - 120
Beryllium	10.0	9.16		ug/L		92	80 - 120
Cadmium	10.0	9.35		ug/L		94	80 - 120
Cobalt	10.0	9.42		ug/L		94	80 - 120
Chromium	20.0	18.69		ug/L		93	80 - 120
Copper	20.0	19.03		ug/L		95	80 - 120
Manganese	100	86.54		ug/L		87	80 - 120
Nickel	20.0	19.01		ug/L		95	80 - 120
Lead	10.0	9.22		ug/L		92	80 - 120
Antimony	10.0	8.98		ug/L		90	80 - 120
Selenium	20.0	18.58		ug/L		93	80 - 120
Vanadium	20.0	18.57		ug/L		93	80 - 120
Zinc	100	95.48		ug/L		95	80 - 120
Aluminum	1000	937.6		ug/L		94	80 - 120
Sodium	1000	874.8		ug/L		87	80 - 120
Magnesium	1000	873.0		ug/L		87	80 - 120
Calcium	1000	976.0		ug/L		98	80 - 120
Iron	1000	963.6		ug/L		96	80 - 120
Thallium	8.00	7.49		ug/L		94	80 - 120

Lab Sample ID: LCS 460-387604/2-A ^2
Matrix: Water
Analysis Batch: 388223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387604

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	1000	991.2		ug/L		99	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-387601/1-B ^2
Matrix: Water
Analysis Batch: 387734

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 387604

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.5	U	2.0	1.5	ug/L		08/30/16 09:54	08/30/16 14:40	2
Arsenic	0.71	U	2.0	0.71	ug/L		08/30/16 09:54	08/30/16 14:40	2
Barium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 14:40	2
Beryllium	0.29	U	0.80	0.29	ug/L		08/30/16 09:54	08/30/16 14:40	2
Cadmium	0.72	U	2.0	0.72	ug/L		08/30/16 09:54	08/30/16 14:40	2
Cobalt	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 14:40	2
Chromium	1.5	U	4.0	1.5	ug/L		08/30/16 09:54	08/30/16 14:40	2
Copper	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 14:40	2
Manganese	3.0	U	8.0	3.0	ug/L		08/30/16 09:54	08/30/16 14:40	2
Nickel	1.6	U	4.0	1.6	ug/L		08/30/16 09:54	08/30/16 14:40	2
Lead	0.44	U	1.2	0.44	ug/L		08/30/16 09:54	08/30/16 14:40	2
Antimony	0.76	U	2.0	0.76	ug/L		08/30/16 09:54	08/30/16 14:40	2
Selenium	0.79	U	10.0	0.79	ug/L		08/30/16 09:54	08/30/16 14:40	2
Vanadium	1.4	U	4.0	1.4	ug/L		08/30/16 09:54	08/30/16 14:40	2
Zinc	6.5	U	16.0	6.5	ug/L		08/30/16 09:54	08/30/16 14:40	2
Aluminum	13.5	U	40.0	13.5	ug/L		08/30/16 09:54	08/30/16 14:40	2
Sodium	87.6	U	200	87.6	ug/L		08/30/16 09:54	08/30/16 14:40	2
Magnesium	68.4	U	200	68.4	ug/L		08/30/16 09:54	08/30/16 14:40	2
Calcium	69.5	U	200	69.5	ug/L		08/30/16 09:54	08/30/16 14:40	2
Iron	49.1	U	120	49.1	ug/L		08/30/16 09:54	08/30/16 14:40	2
Thallium	0.31	U	0.80	0.31	ug/L		08/30/16 09:54	08/30/16 14:40	2

Lab Sample ID: MB 460-387601/1-B ^2
Matrix: Water
Analysis Batch: 388223

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 387604

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	74.8	U	200	74.8	ug/L		08/30/16 09:54	09/01/16 22:38	2

Lab Sample ID: 460-119025-8 MS
Matrix: Water
Analysis Batch: 387734

Client Sample ID: RW-12(55-65)-082216
Prep Type: Dissolved
Prep Batch: 387604

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.5	U	10.0	8.20		ug/L		82	75 - 125
Arsenic	13.9		20.0	31.88		ug/L		90	75 - 125
Barium	22.1		20.0	38.08		ug/L		80	75 - 125
Beryllium	0.29	U	10.0	9.40		ug/L		94	75 - 125
Cadmium	0.72	U	10.0	8.99		ug/L		90	75 - 125
Cobalt	1.5	U	10.0	8.79		ug/L		88	75 - 125
Chromium	1.5	U	20.0	17.68		ug/L		88	75 - 125
Copper	1.6	U	20.0	17.46		ug/L		87	75 - 125
Manganese	3.0	U	100	82.10		ug/L		82	75 - 125
Nickel	1.7	J	20.0	19.29		ug/L		88	75 - 125
Lead	0.44	U	10.0	8.50		ug/L		85	75 - 125
Antimony	0.76	U	10.0	9.25		ug/L		93	75 - 125
Selenium	7.1	J	20.0	26.42		ug/L		97	75 - 125
Vanadium	2.0	J	20.0	19.79		ug/L		89	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119025-8 MS
Matrix: Water
Analysis Batch: 387734

Client Sample ID: RW-12(55-65)-082216
Prep Type: Dissolved
Prep Batch: 387604

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	6.5	U	100	89.90		ug/L		90	75 - 125
Aluminum	150		1000	1033		ug/L		88	75 - 125
Sodium	140000		1000	130500	4	ug/L		-950	75 - 125
Magnesium	590		1000	1371		ug/L		78	75 - 125
Calcium	64100		1000	59800	4	ug/L		-432	75 - 125
Iron	49.1	U	1000	919.8		ug/L		92	75 - 125
Thallium	0.31	U	8.00	6.99		ug/L		87	75 - 125

Lab Sample ID: 460-119025-8 MS
Matrix: Water
Analysis Batch: 388223

Client Sample ID: RW-12(55-65)-082216
Prep Type: Dissolved
Prep Batch: 387604

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	23600		1000	24520	4	ug/L		92	75 - 125

Lab Sample ID: 460-119025-8 DU
Matrix: Water
Analysis Batch: 387734

Client Sample ID: RW-12(55-65)-082216
Prep Type: Dissolved
Prep Batch: 387604

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.5	U	1.5	U	ug/L		NC	20
Arsenic	13.9		13.49		ug/L		3	20
Barium	22.1		21.14		ug/L		5	20
Beryllium	0.29	U	0.29	U	ug/L		NC	20
Cadmium	0.72	U	0.72	U	ug/L		NC	20
Cobalt	1.5	U	1.5	U	ug/L		NC	20
Chromium	1.5	U	1.5	U	ug/L		NC	20
Copper	1.6	U	1.6	U	ug/L		NC	20
Manganese	3.0	U	3.0	U	ug/L		NC	20
Nickel	1.7	J	1.78	J	ug/L		3	20
Lead	0.44	U	0.44	U	ug/L		NC	20
Antimony	0.76	U	0.76	U	ug/L		NC	20
Selenium	7.1	J	7.09	J	ug/L		0.3	20
Vanadium	2.0	J	2.01	J	ug/L		0.8	20
Zinc	6.5	U	6.5	U	ug/L		NC	20
Aluminum	150		144.4		ug/L		4	20
Sodium	140000		134800		ug/L		4	20
Magnesium	590		570.2		ug/L		3	20
Calcium	64100		61880		ug/L		4	20
Iron	49.1	U	49.1	U	ug/L		NC	20
Thallium	0.31	U	0.31	U	ug/L		NC	20

Lab Sample ID: 460-119025-8 DU
Matrix: Water
Analysis Batch: 388223

Client Sample ID: RW-12(55-65)-082216
Prep Type: Dissolved
Prep Batch: 387604

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Potassium	23600		23880		ug/L		1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-386760/1-A
Matrix: Water
Analysis Batch: 386813

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386760

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/25/16 12:22	08/25/16 15:40	1

Lab Sample ID: LCS 460-386760/2-A
Matrix: Water
Analysis Batch: 386813

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	1.01		ug/L		101	80 - 120

Lab Sample ID: 460-118951-G-11-C MS
Matrix: Water
Analysis Batch: 386813

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 386760

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.14	U	1.00	1.03		ug/L		103	75 - 125

Lab Sample ID: 460-118951-G-11-B DU
Matrix: Water
Analysis Batch: 386813

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 386760

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.14	U	0.14	U	ug/L		NC	20

Lab Sample ID: MB 460-386973/1-A
Matrix: Water
Analysis Batch: 387030

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386973

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/26/16 11:58	08/26/16 13:32	1

Lab Sample ID: LCS 460-386973/2-A
Matrix: Water
Analysis Batch: 387030

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386973

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.959		ug/L		96	80 - 120

Lab Sample ID: 460-119072-E-1-D MS
Matrix: Water
Analysis Batch: 387030

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 386973

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.14	U	1.00	0.959		ug/L		96	75 - 125

Lab Sample ID: 460-119072-B-1-A DU
Matrix: Water
Analysis Batch: 387030

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 386973

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.14	U	0.14	U	ug/L		NC	20

Lab Sample ID: LCS 460-387639/2-A
Matrix: Water
Analysis Batch: 387711

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387639

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.899		ug/L		90	80 - 120

Lab Sample ID: LCS 460-388137/2-A
Matrix: Water
Analysis Batch: 388212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388137

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	1.11		ug/L		111	80 - 120

Lab Sample ID: MB 460-387480/1-B
Matrix: Water
Analysis Batch: 387711

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 387639

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		08/30/16 11:57	08/30/16 15:36	1

Lab Sample ID: 460-118951-H-11-D MS
Matrix: Water
Analysis Batch: 387711

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 387639

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.14	U	1.00	0.955		ug/L		95	75 - 125

Lab Sample ID: 460-118951-H-11-C DU
Matrix: Water
Analysis Batch: 387711

Client Sample ID: Duplicate
Prep Type: Dissolved
Prep Batch: 387639

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.14	U	0.14	U	ug/L		NC	20

Lab Sample ID: MB 460-387697/1-B
Matrix: Water
Analysis Batch: 388212

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 388137

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14	U	0.20	0.14	ug/L		09/01/16 10:55	09/01/16 15:29	1

Lab Sample ID: 460-119177-H-5-H MS
Matrix: Water
Analysis Batch: 388212

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 388137

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.14	U	1.00	1.12		ug/L		112	75 - 125

Lab Sample ID: 460-119177-H-5-G DU
Matrix: Water
Analysis Batch: 388212

Client Sample ID: Duplicate
Prep Type: Dissolved
Prep Batch: 388137

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.14	U	0.14	U	ug/L		NC	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 460-388435/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 388488 — **Prep Batch: 388435**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/02/16 14:43	09/02/16 17:27	1

Lab Sample ID: HLCS 460-388435/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 388488 — **Prep Batch: 388435**

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.200	0.188		mg/L		94	80 - 120

Lab Sample ID: LLCS 460-388435/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 388488 — **Prep Batch: 388435**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0983		mg/L		98	80 - 120

Lab Sample ID: 460-119025-10 MS — **Client Sample ID: RW-2(279-289)-082216**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 388488 — **Prep Batch: 388435**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0020	U	0.200	0.183		mg/L		92	75 - 125

Lab Sample ID: 460-119025-10 MSD — **Client Sample ID: RW-2(279-289)-082216**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 388488 — **Prep Batch: 388435**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0020	U	0.200	0.167		mg/L		84	75 - 125	9	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 460-388480/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 388480

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	mg/L			09/02/16 17:48	1

Lab Sample ID: LCSSRM 460-388480/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 388480

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	44.1	44.20		mg/L		100.2	90.5 - 107.9

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 460-119025-1 DU
Matrix: Water
Analysis Batch: 388480

Client Sample ID: PMP-Pond-082216
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	80.4			80.40		mg/L				0	17
Alkalinity	80.4			80.40		mg/L				0	17

GC/MS VOA

Analysis Batch: 386589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Total/NA	Water	8260C	
460-119025-2	Dup-03-082216	Total/NA	Water	8260C	
460-119025-3	SW-PAB-02-082216	Total/NA	Water	8260C	
460-119025-4	SW-PAB-03-082216	Total/NA	Water	8260C	
460-119025-5	SW-PMB-02-082216	Total/NA	Water	8260C	
460-119025-6	SW-MRB-01-082216	Total/NA	Water	8260C	
460-119025-7	SW-NOB-01-082216	Total/NA	Water	8260C	
460-119025-8	RW-12(55-65)-082216	Total/NA	Water	8260C	
460-119025-9	RW-2(452-462)-082216	Total/NA	Water	8260C	
460-119025-10	RW-2(279-289)-082216	Total/NA	Water	8260C	
460-119025-11	CMP-160-082216	Total/NA	Water	8260C	
460-119025-12	CMP-100-082216	Total/NA	Water	8260C	
460-119025-13	CMP-275-082216	Total/NA	Water	8260C	
460-119025-14	CMP-50-082216	Total/NA	Water	8260C	
460-119025-15	TB-05-082216	Total/NA	Water	8260C	
460-119025-16	SW-PMB-01-082316	Total/NA	Water	8260C	
MB 460-386589/7	Method Blank	Total/NA	Water	8260C	
LCS 460-386589/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-386589/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 386835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Total/NA	Water	8260C SIM	
460-119025-2	Dup-03-082216	Total/NA	Water	8260C SIM	
MB 460-386835/7	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-386835/3	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 460-386835/4	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 386888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-4	SW-PAB-03-082216	Total/NA	Water	8260C SIM	
460-119025-5	SW-PMB-02-082216	Total/NA	Water	8260C SIM	
460-119025-7	SW-NOB-01-082216	Total/NA	Water	8260C SIM	
460-119025-8	RW-12(55-65)-082216	Total/NA	Water	8260C SIM	
460-119025-9	RW-2(452-462)-082216	Total/NA	Water	8260C SIM	
460-119025-10	RW-2(279-289)-082216	Total/NA	Water	8260C SIM	
460-119025-11	CMP-160-082216	Total/NA	Water	8260C SIM	
460-119025-12	CMP-100-082216	Total/NA	Water	8260C SIM	
460-119025-13	CMP-275-082216	Total/NA	Water	8260C SIM	
460-119025-15	TB-05-082216	Total/NA	Water	8260C SIM	
460-119025-16	SW-PMB-01-082316	Total/NA	Water	8260C SIM	
MB 460-386888/7	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-386888/3	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 460-386888/4	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 387169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-3	SW-PAB-02-082216	Total/NA	Water	8260C SIM	
460-119025-6	SW-MRB-01-082216	Total/NA	Water	8260C SIM	
460-119025-14	CMP-50-082216	Total/NA	Water	8260C SIM	
MB 460-387169/8	Method Blank	Total/NA	Water	8260C SIM	

GC/MS VOA (Continued)

Analysis Batch: 387169 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-387169/4	Lab Control Sample	Total/NA	Water	8260C SIM	
460-119057-A-1 MS	Matrix Spike	Total/NA	Water	8260C SIM	
460-119057-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C SIM	

GC/MS Semi VOA

Prep Batch: 387194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Total/NA	Water	3510C	
460-119025-2	Dup-03-082216	Total/NA	Water	3510C	
460-119025-3	SW-PAB-02-082216	Total/NA	Water	3510C	
460-119025-4	SW-PAB-03-082216	Total/NA	Water	3510C	
460-119025-5	SW-PMB-02-082216	Total/NA	Water	3510C	
460-119025-6	SW-MRB-01-082216	Total/NA	Water	3510C	
460-119025-7	SW-NOB-01-082216	Total/NA	Water	3510C	
460-119025-8	RW-12(55-65)-082216	Total/NA	Water	3510C	
460-119025-9	RW-2(452-462)-082216	Total/NA	Water	3510C	
460-119025-10	RW-2(279-289)-082216	Total/NA	Water	3510C	
460-119025-11	CMP-160-082216	Total/NA	Water	3510C	
460-119025-12	CMP-100-082216	Total/NA	Water	3510C	
460-119025-13	CMP-275-082216	Total/NA	Water	3510C	
460-119025-14	CMP-50-082216	Total/NA	Water	3510C	
460-119025-16	SW-PMB-01-082316	Total/NA	Water	3510C	
MB 460-387194/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-387194/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-387194/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-387194/6-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-387194/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 460-387194/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 387913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Total/NA	Water	8270D	387194
460-119025-2	Dup-03-082216	Total/NA	Water	8270D	387194
460-119025-3	SW-PAB-02-082216	Total/NA	Water	8270D	387194
460-119025-4	SW-PAB-03-082216	Total/NA	Water	8270D	387194
460-119025-5	SW-PMB-02-082216	Total/NA	Water	8270D	387194
460-119025-6	SW-MRB-01-082216	Total/NA	Water	8270D	387194
460-119025-7	SW-NOB-01-082216	Total/NA	Water	8270D	387194
460-119025-8	RW-12(55-65)-082216	Total/NA	Water	8270D	387194
460-119025-9	RW-2(452-462)-082216	Total/NA	Water	8270D	387194
460-119025-10	RW-2(279-289)-082216	Total/NA	Water	8270D	387194
460-119025-11	CMP-160-082216	Total/NA	Water	8270D	387194
460-119025-12	CMP-100-082216	Total/NA	Water	8270D	387194
460-119025-13	CMP-275-082216	Total/NA	Water	8270D	387194
460-119025-14	CMP-50-082216	Total/NA	Water	8270D	387194
460-119025-16	SW-PMB-01-082316	Total/NA	Water	8270D	387194
MB 460-387194/1-A	Method Blank	Total/NA	Water	8270D	387194
LCS 460-387194/2-A	Lab Control Sample	Total/NA	Water	8270D	387194
LCS 460-387194/4-A	Lab Control Sample	Total/NA	Water	8270D	387194

GC/MS Semi VOA (Continued)

Analysis Batch: 387913 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 460-387194/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	387194
LCSD 460-387194/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	387194

Analysis Batch: 387918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Total/NA	Water	8270D SIM	387194
460-119025-2	Dup-03-082216	Total/NA	Water	8270D SIM	387194
460-119025-3	SW-PAB-02-082216	Total/NA	Water	8270D SIM	387194
460-119025-4	SW-PAB-03-082216	Total/NA	Water	8270D SIM	387194
460-119025-5	SW-PMB-02-082216	Total/NA	Water	8270D SIM	387194
460-119025-6	SW-MRB-01-082216	Total/NA	Water	8270D SIM	387194
460-119025-7	SW-NOB-01-082216	Total/NA	Water	8270D SIM	387194
460-119025-8	RW-12(55-65)-082216	Total/NA	Water	8270D SIM	387194
460-119025-9	RW-2(452-462)-082216	Total/NA	Water	8270D SIM	387194
460-119025-10	RW-2(279-289)-082216	Total/NA	Water	8270D SIM	387194
LCS 460-387194/6-A	Lab Control Sample	Total/NA	Water	8270D SIM	387194

Analysis Batch: 388052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-11	CMP-160-082216	Total/NA	Water	8270D SIM	387194
460-119025-12	CMP-100-082216	Total/NA	Water	8270D SIM	387194
460-119025-13	CMP-275-082216	Total/NA	Water	8270D SIM	387194
460-119025-14	CMP-50-082216	Total/NA	Water	8270D SIM	387194
460-119025-16	SW-PMB-01-082316	Total/NA	Water	8270D SIM	387194

GC Semi VOA

Prep Batch: 386713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Total/NA	Water	3510C	
460-119025-2	Dup-03-082216	Total/NA	Water	3510C	
460-119025-3	SW-PAB-02-082216	Total/NA	Water	3510C	
460-119025-4	SW-PAB-03-082216	Total/NA	Water	3510C	
460-119025-5	SW-PMB-02-082216	Total/NA	Water	3510C	
460-119025-6	SW-MRB-01-082216	Total/NA	Water	3510C	
460-119025-7	SW-NOB-01-082216	Total/NA	Water	3510C	
460-119025-8	RW-12(55-65)-082216	Total/NA	Water	3510C	
460-119025-9	RW-2(452-462)-082216	Total/NA	Water	3510C	
460-119025-10	RW-2(279-289)-082216	Total/NA	Water	3510C	
460-119025-11	CMP-160-082216	Total/NA	Water	3510C	
460-119025-12	CMP-100-082216	Total/NA	Water	3510C	
460-119025-13	CMP-275-082216	Total/NA	Water	3510C	
MB 460-386713/1-A	Method Blank	Total/NA	Water	3510C	
MB 460-386713/1-A - RA	Method Blank	Total/NA	Water	3510C	
LCS 460-386713/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-386713/2-A - RA	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-386713/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 460-386713/3-A - RA	Lab Control Sample Dup	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 386833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-14	CMP-50-082216	Total/NA	Water	3510C	
460-119025-16	SW-PMB-01-082316	Total/NA	Water	3510C	
MB 460-386833/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-386833/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-386833/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 386920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Total/NA	Water	8082A	386713
460-119025-2	Dup-03-082216	Total/NA	Water	8082A	386713
460-119025-3	SW-PAB-02-082216	Total/NA	Water	8082A	386713
460-119025-4	SW-PAB-03-082216	Total/NA	Water	8082A	386713
460-119025-5	SW-PMB-02-082216	Total/NA	Water	8082A	386713
460-119025-6	SW-MRB-01-082216	Total/NA	Water	8082A	386713
460-119025-7	SW-NOB-01-082216	Total/NA	Water	8082A	386713
460-119025-8	RW-12(55-65)-082216	Total/NA	Water	8082A	386713
460-119025-9	RW-2(452-462)-082216	Total/NA	Water	8082A	386713
460-119025-10	RW-2(279-289)-082216	Total/NA	Water	8082A	386713
460-119025-11	CMP-160-082216	Total/NA	Water	8082A	386713
460-119025-12	CMP-100-082216	Total/NA	Water	8082A	386713
460-119025-13	CMP-275-082216	Total/NA	Water	8082A	386713
MB 460-386713/1-A	Method Blank	Total/NA	Water	8082A	386713
LCS 460-386713/2-A	Lab Control Sample	Total/NA	Water	8082A	386713
LCSD 460-386713/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	386713

Analysis Batch: 386921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-14	CMP-50-082216	Total/NA	Water	8082A	386833
460-119025-16	SW-PMB-01-082316	Total/NA	Water	8082A	386833
MB 460-386713/1-A - RA	Method Blank	Total/NA	Water	8082A	386713
MB 460-386833/1-A	Method Blank	Total/NA	Water	8082A	386833
LCS 460-386713/2-A - RA	Lab Control Sample	Total/NA	Water	8082A	386713
LCS 460-386833/2-A	Lab Control Sample	Total/NA	Water	8082A	386833
LCSD 460-386713/3-A - RA	Lab Control Sample Dup	Total/NA	Water	8082A	386713
LCSD 460-386833/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	386833

HPLC/IC

Analysis Batch: 387412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Total/NA	Water	9056A	
460-119025-2	Dup-03-082216	Total/NA	Water	9056A	
460-119025-3	SW-PAB-02-082216	Total/NA	Water	9056A	
460-119025-4	SW-PAB-03-082216	Total/NA	Water	9056A	
460-119025-5	SW-PMB-02-082216	Total/NA	Water	9056A	
460-119025-6	SW-MRB-01-082216	Total/NA	Water	9056A	
460-119025-7	SW-NOB-01-082216	Total/NA	Water	9056A	
460-119025-10	RW-2(279-289)-082216	Total/NA	Water	9056A	
460-119025-11	CMP-160-082216	Total/NA	Water	9056A	
460-119025-12	CMP-100-082216	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 387412 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-13	CMP-275-082216	Total/NA	Water	9056A	
460-119025-14	CMP-50-082216	Total/NA	Water	9056A	
460-119025-16	SW-PMB-01-082316	Total/NA	Water	9056A	
MB 460-387412/3	Method Blank	Total/NA	Water	9056A	
LCS 460-387412/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-387412/5	Lab Control Sample Dup	Total/NA	Water	9056A	
460-119025-6 MS	SW-MRB-01-082216	Total/NA	Water	9056A	
460-119025-6 MSD	SW-MRB-01-082216	Total/NA	Water	9056A	
460-119025-6 DU	SW-MRB-01-082216	Total/NA	Water	9056A	

Analysis Batch: 387602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-3 - DL	SW-PAB-02-082216	Total/NA	Water	9056A	
460-119025-4 - DL	SW-PAB-03-082216	Total/NA	Water	9056A	
460-119025-5 - DL	SW-PMB-02-082216	Total/NA	Water	9056A	
460-119025-8 - DL	RW-12(55-65)-082216	Total/NA	Water	9056A	
460-119025-11 - DL	CMP-160-082216	Total/NA	Water	9056A	
460-119025-12 - DL	CMP-100-082216	Total/NA	Water	9056A	
460-119025-13 - DL	CMP-275-082216	Total/NA	Water	9056A	
460-119025-14 - DL	CMP-50-082216	Total/NA	Water	9056A	
460-119025-16 - DL	SW-PMB-01-082316	Total/NA	Water	9056A	
MB 460-387602/3	Method Blank	Total/NA	Water	9056A	
LCS 460-387602/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-387602/5	Lab Control Sample Dup	Total/NA	Water	9056A	
460-119025-3 MS	SW-PAB-02-082216	Total/NA	Water	9056A	
460-119025-3 MSD	SW-PAB-02-082216	Total/NA	Water	9056A	
460-119025-3 DU - DL	SW-PAB-02-082216	Total/NA	Water	9056A	

Analysis Batch: 388332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-9 - DL	RW-2(452-462)-082216	Total/NA	Water	9056A	
MB 460-388332/3	Method Blank	Total/NA	Water	9056A	
LCS 460-388332/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-388332/6	Lab Control Sample Dup	Total/NA	Water	9056A	
460-119025-9 MS - DL	RW-2(452-462)-082216	Total/NA	Water	9056A	
460-119025-9 MSD - DL	RW-2(452-462)-082216	Total/NA	Water	9056A	

Metals

Prep Batch: 386760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Total/NA	Water	7470A	
460-119025-2	Dup-03-082216	Total/NA	Water	7470A	
460-119025-3	SW-PAB-02-082216	Total/NA	Water	7470A	
MB 460-386760/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-386760/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-118951-G-11-C MS	Matrix Spike	Total/NA	Water	7470A	
460-118951-G-11-B DU	Duplicate	Total/NA	Water	7470A	

Metals (Continued)

Analysis Batch: 386813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Total/NA	Water	7470A	386760
460-119025-2	Dup-03-082216	Total/NA	Water	7470A	386760
460-119025-3	SW-PAB-02-082216	Total/NA	Water	7470A	386760
MB 460-386760/1-A	Method Blank	Total/NA	Water	7470A	386760
LCS 460-386760/2-A	Lab Control Sample	Total/NA	Water	7470A	386760
460-118951-G-11-C MS	Matrix Spike	Total/NA	Water	7470A	386760
460-118951-G-11-B DU	Duplicate	Total/NA	Water	7470A	386760

Prep Batch: 386973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-4	SW-PAB-03-082216	Total/NA	Water	7470A	
460-119025-5	SW-PMB-02-082216	Total/NA	Water	7470A	
460-119025-6	SW-MRB-01-082216	Total/NA	Water	7470A	
460-119025-7	SW-NOB-01-082216	Total/NA	Water	7470A	
460-119025-8	RW-12(55-65)-082216	Total/NA	Water	7470A	
460-119025-9	RW-2(452-462)-082216	Total/NA	Water	7470A	
460-119025-10	RW-2(279-289)-082216	Total/NA	Water	7470A	
460-119025-11	CMP-160-082216	Total/NA	Water	7470A	
460-119025-12	CMP-100-082216	Total/NA	Water	7470A	
460-119025-13	CMP-275-082216	Total/NA	Water	7470A	
460-119025-14	CMP-50-082216	Total/NA	Water	7470A	
460-119025-16	SW-PMB-01-082316	Total/NA	Water	7470A	
MB 460-386973/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-386973/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-119072-E-1-D MS	Matrix Spike	Total/NA	Water	7470A	
460-119072-B-1-A DU	Duplicate	Total/NA	Water	7470A	

Analysis Batch: 387030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-4	SW-PAB-03-082216	Total/NA	Water	7470A	386973
460-119025-5	SW-PMB-02-082216	Total/NA	Water	7470A	386973
460-119025-6	SW-MRB-01-082216	Total/NA	Water	7470A	386973
460-119025-7	SW-NOB-01-082216	Total/NA	Water	7470A	386973
460-119025-8	RW-12(55-65)-082216	Total/NA	Water	7470A	386973
460-119025-9	RW-2(452-462)-082216	Total/NA	Water	7470A	386973
460-119025-10	RW-2(279-289)-082216	Total/NA	Water	7470A	386973
460-119025-11	CMP-160-082216	Total/NA	Water	7470A	386973
460-119025-12	CMP-100-082216	Total/NA	Water	7470A	386973
460-119025-13	CMP-275-082216	Total/NA	Water	7470A	386973
460-119025-14	CMP-50-082216	Total/NA	Water	7470A	386973
460-119025-16	SW-PMB-01-082316	Total/NA	Water	7470A	386973
MB 460-386973/1-A	Method Blank	Total/NA	Water	7470A	386973
LCS 460-386973/2-A	Lab Control Sample	Total/NA	Water	7470A	386973
460-119072-E-1-D MS	Matrix Spike	Total/NA	Water	7470A	386973
460-119072-B-1-A DU	Duplicate	Total/NA	Water	7470A	386973

Prep Batch: 387370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Total/NA	Water	3010A	
460-119025-2	Dup-03-082216	Total/NA	Water	3010A	
460-119025-3	SW-PAB-02-082216	Total/NA	Water	3010A	

Metals (Continued)

Prep Batch: 387370 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-4	SW-PAB-03-082216	Total/NA	Water	3010A	
460-119025-5	SW-PMB-02-082216	Total/NA	Water	3010A	
460-119025-6	SW-MRB-01-082216	Total/NA	Water	3010A	
460-119025-7	SW-NOB-01-082216	Total/NA	Water	3010A	
460-119025-8	RW-12(55-65)-082216	Total/NA	Water	3010A	
460-119025-9	RW-2(452-462)-082216	Total/NA	Water	3010A	
460-119025-10	RW-2(279-289)-082216	Total/NA	Water	3010A	
460-119025-11	CMP-160-082216	Total/NA	Water	3010A	
460-119025-12	CMP-100-082216	Total/NA	Water	3010A	
460-119025-13	CMP-275-082216	Total/NA	Water	3010A	
460-119025-14	CMP-50-082216	Total/NA	Water	3010A	
460-119025-16	SW-PMB-01-082316	Total/NA	Water	3010A	
MB 460-387370/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-387370/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-119005-W-12-D MS ^2	Matrix Spike	Total/NA	Water	3010A	
460-119005-W-12-C DU ^2	Duplicate	Total/NA	Water	3010A	

Filtration Batch: 387480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Dissolved	Water	FILTRATION	
460-119025-2	Dup-03-082216	Dissolved	Water	FILTRATION	
460-119025-3	SW-PAB-02-082216	Dissolved	Water	FILTRATION	
460-119025-4	SW-PAB-03-082216	Dissolved	Water	FILTRATION	
460-119025-5	SW-PMB-02-082216	Dissolved	Water	FILTRATION	
460-119025-6	SW-MRB-01-082216	Dissolved	Water	FILTRATION	
460-119025-7	SW-NOB-01-082216	Dissolved	Water	FILTRATION	
460-119025-8	RW-12(55-65)-082216	Dissolved	Water	FILTRATION	
460-119025-9	RW-2(452-462)-082216	Dissolved	Water	FILTRATION	
460-119025-10	RW-2(279-289)-082216	Dissolved	Water	FILTRATION	
460-119025-11	CMP-160-082216	Dissolved	Water	FILTRATION	
460-119025-12	CMP-100-082216	Dissolved	Water	FILTRATION	
460-119025-13	CMP-275-082216	Dissolved	Water	FILTRATION	
MB 460-387480/1-B	Method Blank	Dissolved	Water	FILTRATION	
460-118951-H-11-D MS	Matrix Spike	Dissolved	Water	FILTRATION	
460-118951-H-11-C DU	Duplicate	Dissolved	Water	FILTRATION	

Filtration Batch: 387601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Dissolved	Water	FILTRATION	
460-119025-2	Dup-03-082216	Dissolved	Water	FILTRATION	
460-119025-3	SW-PAB-02-082216	Dissolved	Water	FILTRATION	
460-119025-4	SW-PAB-03-082216	Dissolved	Water	FILTRATION	
460-119025-5	SW-PMB-02-082216	Dissolved	Water	FILTRATION	
460-119025-6	SW-MRB-01-082216	Dissolved	Water	FILTRATION	
460-119025-7	SW-NOB-01-082216	Dissolved	Water	FILTRATION	
460-119025-8	RW-12(55-65)-082216	Dissolved	Water	FILTRATION	
460-119025-9	RW-2(452-462)-082216	Dissolved	Water	FILTRATION	
460-119025-10	RW-2(279-289)-082216	Dissolved	Water	FILTRATION	
460-119025-11	CMP-160-082216	Dissolved	Water	FILTRATION	
460-119025-12	CMP-100-082216	Dissolved	Water	FILTRATION	
460-119025-13	CMP-275-082216	Dissolved	Water	FILTRATION	

Metals (Continued)

Filtration Batch: 387601 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-14	CMP-50-082216	Dissolved	Water	FILTRATION	
460-119025-16	SW-PMB-01-082316	Dissolved	Water	FILTRATION	
MB 460-387601/1-B ^2	Method Blank	Dissolved	Water	FILTRATION	
460-119025-8 MS	RW-12(55-65)-082216	Dissolved	Water	FILTRATION	
460-119025-8 DU	RW-12(55-65)-082216	Dissolved	Water	FILTRATION	

Prep Batch: 387604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Dissolved	Water	3010A	387601
460-119025-2	Dup-03-082216	Dissolved	Water	3010A	387601
460-119025-3	SW-PAB-02-082216	Dissolved	Water	3010A	387601
460-119025-4	SW-PAB-03-082216	Dissolved	Water	3010A	387601
460-119025-5	SW-PMB-02-082216	Dissolved	Water	3010A	387601
460-119025-6	SW-MRB-01-082216	Dissolved	Water	3010A	387601
460-119025-7	SW-NOB-01-082216	Dissolved	Water	3010A	387601
460-119025-8	RW-12(55-65)-082216	Dissolved	Water	3010A	387601
460-119025-9	RW-2(452-462)-082216	Dissolved	Water	3010A	387601
460-119025-10	RW-2(279-289)-082216	Dissolved	Water	3010A	387601
460-119025-11	CMP-160-082216	Dissolved	Water	3010A	387601
460-119025-12	CMP-100-082216	Dissolved	Water	3010A	387601
460-119025-13	CMP-275-082216	Dissolved	Water	3010A	387601
460-119025-14	CMP-50-082216	Dissolved	Water	3010A	387601
460-119025-16	SW-PMB-01-082316	Dissolved	Water	3010A	387601
MB 460-387601/1-B ^2	Method Blank	Dissolved	Water	3010A	387601
LCS 460-387604/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-119025-8 MS	RW-12(55-65)-082216	Dissolved	Water	3010A	387601
460-119025-8 DU	RW-12(55-65)-082216	Dissolved	Water	3010A	387601

Prep Batch: 387639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Dissolved	Water	7470A	387480
460-119025-2	Dup-03-082216	Dissolved	Water	7470A	387480
460-119025-3	SW-PAB-02-082216	Dissolved	Water	7470A	387480
460-119025-4	SW-PAB-03-082216	Dissolved	Water	7470A	387480
460-119025-5	SW-PMB-02-082216	Dissolved	Water	7470A	387480
460-119025-6	SW-MRB-01-082216	Dissolved	Water	7470A	387480
460-119025-7	SW-NOB-01-082216	Dissolved	Water	7470A	387480
460-119025-8	RW-12(55-65)-082216	Dissolved	Water	7470A	387480
460-119025-9	RW-2(452-462)-082216	Dissolved	Water	7470A	387480
460-119025-10	RW-2(279-289)-082216	Dissolved	Water	7470A	387480
460-119025-11	CMP-160-082216	Dissolved	Water	7470A	387480
460-119025-12	CMP-100-082216	Dissolved	Water	7470A	387480
460-119025-13	CMP-275-082216	Dissolved	Water	7470A	387480
MB 460-387480/1-B	Method Blank	Dissolved	Water	7470A	387480
LCS 460-387639/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-118951-H-11-D MS	Matrix Spike	Dissolved	Water	7470A	387480
460-118951-H-11-C DU	Duplicate	Dissolved	Water	7470A	387480

Filtration Batch: 387697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-14	CMP-50-082216	Dissolved	Water	FILTRATION	

Metals (Continued)

Filtration Batch: 387697 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-16	SW-PMB-01-082316	Dissolved	Water	FILTRATION	
MB 460-387697/1-B	Method Blank	Dissolved	Water	FILTRATION	
460-119177-H-5-H MS	Matrix Spike	Dissolved	Water	FILTRATION	
460-119177-H-5-G DU	Duplicate	Dissolved	Water	FILTRATION	

Analysis Batch: 387711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Dissolved	Water	7470A	387639
460-119025-2	Dup-03-082216	Dissolved	Water	7470A	387639
460-119025-3	SW-PAB-02-082216	Dissolved	Water	7470A	387639
460-119025-4	SW-PAB-03-082216	Dissolved	Water	7470A	387639
460-119025-5	SW-PMB-02-082216	Dissolved	Water	7470A	387639
460-119025-6	SW-MRB-01-082216	Dissolved	Water	7470A	387639
460-119025-7	SW-NOB-01-082216	Dissolved	Water	7470A	387639
460-119025-8	RW-12(55-65)-082216	Dissolved	Water	7470A	387639
460-119025-9	RW-2(452-462)-082216	Dissolved	Water	7470A	387639
460-119025-10	RW-2(279-289)-082216	Dissolved	Water	7470A	387639
460-119025-11	CMP-160-082216	Dissolved	Water	7470A	387639
460-119025-12	CMP-100-082216	Dissolved	Water	7470A	387639
460-119025-13	CMP-275-082216	Dissolved	Water	7470A	387639
MB 460-387480/1-B	Method Blank	Dissolved	Water	7470A	387639
LCS 460-387639/2-A	Lab Control Sample	Total/NA	Water	7470A	387639
460-118951-H-11-D MS	Matrix Spike	Dissolved	Water	7470A	387639
460-118951-H-11-C DU	Duplicate	Dissolved	Water	7470A	387639

Analysis Batch: 387734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Dissolved	Water	6020A	387604
460-119025-2	Dup-03-082216	Dissolved	Water	6020A	387604
460-119025-3	SW-PAB-02-082216	Dissolved	Water	6020A	387604
460-119025-4	SW-PAB-03-082216	Dissolved	Water	6020A	387604
460-119025-5	SW-PMB-02-082216	Dissolved	Water	6020A	387604
460-119025-6	SW-MRB-01-082216	Dissolved	Water	6020A	387604
460-119025-7	SW-NOB-01-082216	Dissolved	Water	6020A	387604
460-119025-8	RW-12(55-65)-082216	Dissolved	Water	6020A	387604
460-119025-9	RW-2(452-462)-082216	Dissolved	Water	6020A	387604
460-119025-10	RW-2(279-289)-082216	Dissolved	Water	6020A	387604
460-119025-11	CMP-160-082216	Dissolved	Water	6020A	387604
460-119025-13	CMP-275-082216	Dissolved	Water	6020A	387604
460-119025-14	CMP-50-082216	Dissolved	Water	6020A	387604
460-119025-16	SW-PMB-01-082316	Dissolved	Water	6020A	387604
MB 460-387601/1-B ^2	Method Blank	Dissolved	Water	6020A	387604
LCS 460-387604/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387604
460-119025-8 MS	RW-12(55-65)-082216	Dissolved	Water	6020A	387604
460-119025-8 DU	RW-12(55-65)-082216	Dissolved	Water	6020A	387604

Prep Batch: 388137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-14	CMP-50-082216	Dissolved	Water	7470A	387697
460-119025-16	SW-PMB-01-082316	Dissolved	Water	7470A	387697
MB 460-387697/1-B	Method Blank	Dissolved	Water	7470A	387697

Metals (Continued)

Prep Batch: 388137 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-388137/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-119177-H-5-H MS	Matrix Spike	Dissolved	Water	7470A	387697
460-119177-H-5-G DU	Duplicate	Dissolved	Water	7470A	387697

Analysis Batch: 388143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-387370/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387370

Analysis Batch: 388212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-14	CMP-50-082216	Dissolved	Water	7470A	388137
460-119025-16	SW-PMB-01-082316	Dissolved	Water	7470A	388137
MB 460-387697/1-B	Method Blank	Dissolved	Water	7470A	388137
LCS 460-388137/2-A	Lab Control Sample	Total/NA	Water	7470A	388137
460-119177-H-5-H MS	Matrix Spike	Dissolved	Water	7470A	388137
460-119177-H-5-G DU	Duplicate	Dissolved	Water	7470A	388137

Analysis Batch: 388223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Dissolved	Water	6020A	387604
460-119025-2	Dup-03-082216	Dissolved	Water	6020A	387604
460-119025-3	SW-PAB-02-082216	Dissolved	Water	6020A	387604
460-119025-4	SW-PAB-03-082216	Dissolved	Water	6020A	387604
460-119025-5	SW-PMB-02-082216	Dissolved	Water	6020A	387604
460-119025-6	SW-MRB-01-082216	Dissolved	Water	6020A	387604
460-119025-7	SW-NOB-01-082216	Dissolved	Water	6020A	387604
460-119025-8	RW-12(55-65)-082216	Dissolved	Water	6020A	387604
460-119025-9	RW-2(452-462)-082216	Dissolved	Water	6020A	387604
460-119025-10	RW-2(279-289)-082216	Dissolved	Water	6020A	387604
460-119025-11	CMP-160-082216	Dissolved	Water	6020A	387604
460-119025-12	CMP-100-082216	Dissolved	Water	6020A	387604
460-119025-13	CMP-275-082216	Dissolved	Water	6020A	387604
460-119025-14	CMP-50-082216	Dissolved	Water	6020A	387604
460-119025-16	SW-PMB-01-082316	Dissolved	Water	6020A	387604
MB 460-387601/1-B ^2	Method Blank	Dissolved	Water	6020A	387604
LCS 460-387604/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387604
460-119025-8 MS	RW-12(55-65)-082216	Dissolved	Water	6020A	387604
460-119025-8 DU	RW-12(55-65)-082216	Dissolved	Water	6020A	387604

Analysis Batch: 388293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Total/NA	Water	6020A	387370
460-119025-2	Dup-03-082216	Total/NA	Water	6020A	387370
460-119025-3	SW-PAB-02-082216	Total/NA	Water	6020A	387370
460-119025-4	SW-PAB-03-082216	Total/NA	Water	6020A	387370
460-119025-5	SW-PMB-02-082216	Total/NA	Water	6020A	387370
460-119025-6	SW-MRB-01-082216	Total/NA	Water	6020A	387370
460-119025-7	SW-NOB-01-082216	Total/NA	Water	6020A	387370
460-119025-8	RW-12(55-65)-082216	Total/NA	Water	6020A	387370
460-119025-9	RW-2(452-462)-082216	Total/NA	Water	6020A	387370
460-119025-10	RW-2(279-289)-082216	Total/NA	Water	6020A	387370

Metals (Continued)

Analysis Batch: 388293 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-11	CMP-160-082216	Total/NA	Water	6020A	387370
460-119025-12	CMP-100-082216	Total/NA	Water	6020A	387370
460-119025-13	CMP-275-082216	Total/NA	Water	6020A	387370
460-119025-14	CMP-50-082216	Total/NA	Water	6020A	387370
460-119025-16	SW-PMB-01-082316	Total/NA	Water	6020A	387370
MB 460-387370/1-A ^2	Method Blank	Total/NA	Water	6020A	387370
LCS 460-387370/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387370
460-119005-W-12-D MS ^2	Matrix Spike	Total/NA	Water	6020A	387370
460-119005-W-12-C DU ^2	Duplicate	Total/NA	Water	6020A	387370

Analysis Batch: 389030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-11	CMP-160-082216	Total/NA	Water	6020A	387370
460-119025-13	CMP-275-082216	Total/NA	Water	6020A	387370

General Chemistry

Prep Batch: 388435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Total/NA	Water	9012B	
460-119025-2	Dup-03-082216	Total/NA	Water	9012B	
460-119025-3	SW-PAB-02-082216	Total/NA	Water	9012B	
460-119025-4	SW-PAB-03-082216	Total/NA	Water	9012B	
460-119025-5	SW-PMB-02-082216	Total/NA	Water	9012B	
460-119025-6	SW-MRB-01-082216	Total/NA	Water	9012B	
460-119025-7	SW-NOB-01-082216	Total/NA	Water	9012B	
460-119025-8	RW-12(55-65)-082216	Total/NA	Water	9012B	
460-119025-9	RW-2(452-462)-082216	Total/NA	Water	9012B	
460-119025-10	RW-2(279-289)-082216	Total/NA	Water	9012B	
460-119025-11	CMP-160-082216	Total/NA	Water	9012B	
460-119025-12	CMP-100-082216	Total/NA	Water	9012B	
460-119025-13	CMP-275-082216	Total/NA	Water	9012B	
460-119025-14	CMP-50-082216	Total/NA	Water	9012B	
460-119025-16	SW-PMB-01-082316	Total/NA	Water	9012B	
MB 460-388435/1-A	Method Blank	Total/NA	Water	9012B	
HLCS 460-388435/3-A	Lab Control Sample	Total/NA	Water	9012B	
LLCS 460-388435/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-119025-10 MS	RW-2(279-289)-082216	Total/NA	Water	9012B	
460-119025-10 MSD	RW-2(279-289)-082216	Total/NA	Water	9012B	

Analysis Batch: 388480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Total/NA	Water	SM 2320B	
460-119025-2	Dup-03-082216	Total/NA	Water	SM 2320B	
460-119025-3	SW-PAB-02-082216	Total/NA	Water	SM 2320B	
460-119025-4	SW-PAB-03-082216	Total/NA	Water	SM 2320B	
460-119025-5	SW-PMB-02-082216	Total/NA	Water	SM 2320B	
460-119025-6	SW-MRB-01-082216	Total/NA	Water	SM 2320B	
460-119025-7	SW-NOB-01-082216	Total/NA	Water	SM 2320B	
460-119025-8	RW-12(55-65)-082216	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 388480 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-9	RW-2(452-462)-082216	Total/NA	Water	SM 2320B	
460-119025-10	RW-2(279-289)-082216	Total/NA	Water	SM 2320B	
460-119025-11	CMP-160-082216	Total/NA	Water	SM 2320B	
460-119025-12	CMP-100-082216	Total/NA	Water	SM 2320B	
460-119025-13	CMP-275-082216	Total/NA	Water	SM 2320B	
460-119025-14	CMP-50-082216	Total/NA	Water	SM 2320B	
460-119025-16	SW-PMB-01-082316	Total/NA	Water	SM 2320B	
MB 460-388480/1	Method Blank	Total/NA	Water	SM 2320B	
LCSSRM 460-388480/2	Lab Control Sample	Total/NA	Water	SM 2320B	
460-119025-1 DU	PMP-Pond-082216	Total/NA	Water	SM 2320B	

Analysis Batch: 388488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119025-1	PMP-Pond-082216	Total/NA	Water	9012B	388435
460-119025-2	Dup-03-082216	Total/NA	Water	9012B	388435
460-119025-3	SW-PAB-02-082216	Total/NA	Water	9012B	388435
460-119025-4	SW-PAB-03-082216	Total/NA	Water	9012B	388435
460-119025-5	SW-PMB-02-082216	Total/NA	Water	9012B	388435
460-119025-6	SW-MRB-01-082216	Total/NA	Water	9012B	388435
460-119025-7	SW-NOB-01-082216	Total/NA	Water	9012B	388435
460-119025-8	RW-12(55-65)-082216	Total/NA	Water	9012B	388435
460-119025-9	RW-2(452-462)-082216	Total/NA	Water	9012B	388435
460-119025-10	RW-2(279-289)-082216	Total/NA	Water	9012B	388435
460-119025-11	CMP-160-082216	Total/NA	Water	9012B	388435
460-119025-12	CMP-100-082216	Total/NA	Water	9012B	388435
460-119025-13	CMP-275-082216	Total/NA	Water	9012B	388435
460-119025-14	CMP-50-082216	Total/NA	Water	9012B	388435
460-119025-16	SW-PMB-01-082316	Total/NA	Water	9012B	388435
MB 460-388435/1-A	Method Blank	Total/NA	Water	9012B	388435
HLCS 460-388435/3-A	Lab Control Sample	Total/NA	Water	9012B	388435
LLCS 460-388435/2-A	Lab Control Sample	Total/NA	Water	9012B	388435
460-119025-10 MS	RW-2(279-289)-082216	Total/NA	Water	9012B	388435
460-119025-10 MSD	RW-2(279-289)-082216	Total/NA	Water	9012B	388435

Client Sample ID: PMP-Pond-082216

Lab Sample ID: 460-119025-1

Date Collected: 08/22/16 08:30

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 01:31	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386835	08/26/16 02:58	DAS	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D		1	387913	08/31/16 20:30	MMC	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	387918	08/31/16 22:39	CAZ	TAL EDI
Total/NA	Prep	3510C			386713	08/25/16 08:37	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386920	08/26/16 11:38	JHP	TAL EDI
Total/NA	Analysis	9056A		1	387412	08/29/16 21:20	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387734	08/30/16 15:14	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 15:09	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 04:36	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 16:06	RBS	TAL EDI
Total/NA	Prep	7470A			386760	08/25/16 12:22	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 16:36	RBS	TAL EDI
Total/NA	Prep	9012B			388435	09/02/16 14:43	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388488	09/02/16 17:32	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	388480	09/02/16 17:48	RAK	TAL EDI

Client Sample ID: Dup-03-082216

Lab Sample ID: 460-119025-2

Date Collected: 08/22/16 12:00

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 01:57	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386835	08/26/16 03:23	DAS	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D		1	387913	08/31/16 20:50	MMC	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	387918	08/31/16 23:08	CAZ	TAL EDI
Total/NA	Prep	3510C			386713	08/25/16 08:37	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386920	08/26/16 20:01	JHP	TAL EDI
Total/NA	Analysis	9056A		1	387412	08/29/16 21:39	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387734	08/30/16 22:31	PHP	TAL EDI

Client Sample ID: Dup-03-082216

Lab Sample ID: 460-119025-2

Date Collected: 08/22/16 12:00

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 15:15	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 04:42	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 16:08	RBS	TAL EDI
Total/NA	Prep	7470A			386760	08/25/16 12:22	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 16:38	RBS	TAL EDI
Total/NA	Prep	9012B			388435	09/02/16 14:43	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388488	09/02/16 17:33	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	388480	09/02/16 17:48	RAK	TAL EDI

Client Sample ID: SW-PAB-02-082216

Lab Sample ID: 460-119025-3

Date Collected: 08/22/16 14:45

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 02:23	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387169	08/27/16 18:35	AAT	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D		1	387913	08/31/16 21:10	MMC	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	387918	08/31/16 23:36	CAZ	TAL EDI
Total/NA	Prep	3510C			386713	08/25/16 08:37	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386920	08/26/16 20:16	JHP	TAL EDI
Total/NA	Analysis	9056A		1	387412	08/29/16 21:57	MJA	TAL EDI
Total/NA	Analysis	9056A	DL	2	387602	08/30/16 13:45	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387734	08/30/16 22:37	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 15:20	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 04:48	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 16:09	RBS	TAL EDI
Total/NA	Prep	7470A			386760	08/25/16 12:22	RBS	TAL EDI
Total/NA	Analysis	7470A		1	386813	08/25/16 16:40	RBS	TAL EDI
Total/NA	Prep	9012B			388435	09/02/16 14:43	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388488	09/02/16 17:34	MAL	TAL EDI

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2320B		1	388480	09/02/16 17:48	RAK	TAL EDI

Client Sample ID: SW-PAB-03-082216

Lab Sample ID: 460-119025-4

Date Collected: 08/22/16 13:00

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 02:49	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386888	08/26/16 12:30	AAT	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D		1	387913	08/31/16 21:30	MMC	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	387918	09/01/16 00:04	CAZ	TAL EDI
Total/NA	Prep	3510C			386713	08/25/16 08:37	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386920	08/26/16 15:33	JHP	TAL EDI
Total/NA	Analysis	9056A		1	387412	08/29/16 22:15	MJA	TAL EDI
Total/NA	Analysis	9056A	DL	2	387602	08/30/16 14:04	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387734	08/30/16 22:42	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 15:26	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 04:53	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 16:11	RBS	TAL EDI
Total/NA	Prep	7470A			386973	08/26/16 11:58	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387030	08/26/16 13:47	RBS	TAL EDI
Total/NA	Prep	9012B			388435	09/02/16 14:43	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388488	09/02/16 17:38	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	388480	09/02/16 17:48	RAK	TAL EDI

Client Sample ID: SW-PMB-02-082216

Lab Sample ID: 460-119025-5

Date Collected: 08/22/16 17:45

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 03:14	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386888	08/26/16 12:55	AAT	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D		1	387913	08/31/16 21:49	MMC	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	387918	09/01/16 00:33	CAZ	TAL EDI
Total/NA	Prep	3510C			386713	08/25/16 08:37	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386920	08/26/16 15:48	JHP	TAL EDI

Client Sample ID: SW-PMB-02-082216

Lab Sample ID: 460-119025-5

Date Collected: 08/22/16 17:45

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A		1	387412	08/29/16 22:33	MJA	TAL EDI
Total/NA	Analysis	9056A	DL	50	387602	08/30/16 14:22	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387734	08/30/16 23:05	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 15:48	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 04:59	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 16:15	RBS	TAL EDI
Total/NA	Prep	7470A			386973	08/26/16 11:58	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387030	08/26/16 14:02	RBS	TAL EDI
Total/NA	Prep	9012B			388435	09/02/16 14:43	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388488	09/02/16 17:39	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	388480	09/02/16 17:48	RAK	TAL EDI

Client Sample ID: SW-MRB-01-082216

Lab Sample ID: 460-119025-6

Date Collected: 08/22/16 16:00

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 03:40	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387169	08/27/16 17:45	AAT	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D		1	387913	08/31/16 22:09	MMC	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	387918	09/01/16 01:01	CAZ	TAL EDI
Total/NA	Prep	3510C			386713	08/25/16 08:37	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386920	08/26/16 16:03	JHP	TAL EDI
Total/NA	Analysis	9056A		1	387412	08/29/16 22:52	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387734	08/30/16 23:10	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 15:54	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 05:05	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 16:16	RBS	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			386973	08/26/16 11:58	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387030	08/26/16 14:04	RBS	TAL EDI
Total/NA	Prep	9012B			388435	09/02/16 14:43	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388488	09/02/16 17:40	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	388480	09/02/16 17:48	RAK	TAL EDI

Client Sample ID: SW-NOB-01-082216

Lab Sample ID: 460-119025-7

Date Collected: 08/22/16 10:00

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 04:06	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386888	08/26/16 13:45	AAT	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D		1	387913	08/31/16 22:28	MMC	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	387918	09/01/16 01:30	CAZ	TAL EDI
Total/NA	Prep	3510C			386713	08/25/16 08:37	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386920	08/26/16 16:18	JHP	TAL EDI
Total/NA	Analysis	9056A		1	387412	08/29/16 23:10	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387734	08/30/16 23:16	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 15:59	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 05:11	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 16:37	RBS	TAL EDI
Total/NA	Prep	7470A			386973	08/26/16 11:58	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387030	08/26/16 14:06	RBS	TAL EDI
Total/NA	Prep	9012B			388435	09/02/16 14:43	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388488	09/02/16 17:41	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	388480	09/02/16 17:48	RAK	TAL EDI

Client Sample ID: RW-12(55-65)-082216

Lab Sample ID: 460-119025-8

Date Collected: 08/22/16 16:10

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 04:32	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386888	08/26/16 14:10	AAT	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D		1	387913	08/31/16 22:48	MMC	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI

Client Sample ID: RW-12(55-65)-082216

Lab Sample ID: 460-119025-8

Date Collected: 08/22/16 16:10

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D SIM		1	387918	09/01/16 01:58	CAZ	TAL EDI
Total/NA	Prep	3510C			386713	08/25/16 08:37	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386920	08/26/16 16:33	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	50	387602	08/30/16 14:40	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387734	08/30/16 15:02	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 14:58	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 05:17	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 16:21	RBS	TAL EDI
Total/NA	Prep	7470A			386973	08/26/16 11:58	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387030	08/26/16 14:08	RBS	TAL EDI
Total/NA	Prep	9012B			388435	09/02/16 14:43	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388488	09/02/16 17:42	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	388480	09/02/16 17:48	RAK	TAL EDI

Client Sample ID: RW-2(452-462)-082216

Lab Sample ID: 460-119025-9

Date Collected: 08/22/16 13:00

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 04:58	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386888	08/26/16 14:35	AAT	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D		1	387913	08/31/16 23:08	MMC	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	387918	09/01/16 02:26	CAZ	TAL EDI
Total/NA	Prep	3510C			386713	08/25/16 08:37	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386920	08/26/16 16:47	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	200	388332	09/02/16 09:46	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387734	08/30/16 23:21	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 16:05	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 05:28	VAD	TAL EDI

Client Sample ID: RW-2(452-462)-082216

Lab Sample ID: 460-119025-9

Date Collected: 08/22/16 13:00

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 16:26	RBS	TAL EDI
Total/NA	Prep	7470A			386973	08/26/16 11:58	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387030	08/26/16 14:09	RBS	TAL EDI
Total/NA	Prep	9012B			388435	09/02/16 14:43	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388488	09/02/16 17:42	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	388480	09/02/16 17:48	RAK	TAL EDI

Client Sample ID: RW-2(279-289)-082216

Lab Sample ID: 460-119025-10

Date Collected: 08/22/16 11:05

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 05:24	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386888	08/26/16 15:00	AAT	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D		1	387913	08/31/16 23:27	MMC	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	387918	09/01/16 02:55	CAZ	TAL EDI
Total/NA	Prep	3510C			386713	08/25/16 08:37	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386920	08/26/16 17:02	JHP	TAL EDI
Total/NA	Analysis	9056A		1	387412	08/30/16 00:05	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387734	08/30/16 23:27	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 16:11	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 05:52	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 16:28	RBS	TAL EDI
Total/NA	Prep	7470A			386973	08/26/16 11:58	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387030	08/26/16 14:11	RBS	TAL EDI
Total/NA	Prep	9012B			388435	09/02/16 14:43	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388488	09/02/16 17:43	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	388480	09/02/16 17:48	RAK	TAL EDI

Client Sample ID: CMP-160-082216

Lab Sample ID: 460-119025-11

Date Collected: 08/22/16 13:20

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 05:49	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386888	08/26/16 15:25	AAT	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D		1	387913	08/31/16 23:47	MMC	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	388052	09/01/16 11:25	MMC	TAL EDI
Total/NA	Prep	3510C			386713	08/25/16 08:37	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386920	08/26/16 17:17	JHP	TAL EDI
Total/NA	Analysis	9056A		1	387412	08/30/16 00:59	MJA	TAL EDI
Total/NA	Analysis	9056A	DL	100	387602	08/30/16 14:58	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387734	08/30/16 23:33	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 16:16	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 05:58	VAD	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		5	389030	09/07/16 12:46	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 16:30	RBS	TAL EDI
Total/NA	Prep	7470A			386973	08/26/16 11:58	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387030	08/26/16 14:13	RBS	TAL EDI
Total/NA	Prep	9012B			388435	09/02/16 14:43	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388488	09/02/16 17:46	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	388480	09/02/16 17:48	RAK	TAL EDI

Client Sample ID: CMP-100-082216

Lab Sample ID: 460-119025-12

Date Collected: 08/22/16 11:40

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 06:15	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386888	08/26/16 15:51	AAT	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D		1	387913	09/01/16 00:06	MMC	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	388052	09/01/16 11:54	MMC	TAL EDI
Total/NA	Prep	3510C			386713	08/25/16 08:37	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386920	08/26/16 17:32	JHP	TAL EDI
Total/NA	Analysis	9056A		1	387412	08/30/16 01:18	MJA	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: CMP-100-082216

Date Collected: 08/22/16 11:40
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9056A	DL	100	387602	08/30/16 15:17	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 16:22	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 06:03	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 16:32	RBS	TAL EDI
Total/NA	Prep	7470A			386973	08/26/16 11:58	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387030	08/26/16 14:15	RBS	TAL EDI
Total/NA	Prep	9012B			388435	09/02/16 14:43	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388488	09/02/16 17:50	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	388480	09/02/16 17:48	RAK	TAL EDI

Client Sample ID: CMP-275-082216

Date Collected: 08/22/16 14:50
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 06:41	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386888	08/26/16 16:16	AAT	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D		1	387913	09/01/16 00:26	MMC	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:54	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	388052	09/01/16 12:23	MMC	TAL EDI
Total/NA	Prep	3510C			386713	08/25/16 08:37	HAW	TAL EDI
Total/NA	Analysis	8082A		1	386920	08/26/16 17:47	JHP	TAL EDI
Total/NA	Analysis	9056A		1	387412	08/30/16 01:36	MJA	TAL EDI
Total/NA	Analysis	9056A	DL	100	387602	08/30/16 15:35	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387734	08/30/16 23:44	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 16:40	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 06:09	VAD	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 07:58	QZY	TAL EDI
Total/NA	Analysis	6020A		5	389030	09/07/16 12:52	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387480	08/29/16 16:39	RBS	TAL EDI
Dissolved	Prep	7470A			387639	08/30/16 11:57	RBS	TAL EDI
Dissolved	Analysis	7470A		1	387711	08/30/16 16:34	RBS	TAL EDI

Client Sample ID: CMP-275-082216

Lab Sample ID: 460-119025-13

Date Collected: 08/22/16 14:50

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			386973	08/26/16 11:58	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387030	08/26/16 14:17	RBS	TAL EDI
Total/NA	Prep	9012B			388435	09/02/16 14:46	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388488	09/02/16 17:51	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	388480	09/02/16 17:48	RAK	TAL EDI

Client Sample ID: CMP-50-082216

Lab Sample ID: 460-119025-14

Date Collected: 08/22/16 10:30

Matrix: Water

Date Received: 08/23/16 11:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 07:07	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387169	08/27/16 18:10	AAT	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:57	MBE	TAL EDI
Total/NA	Analysis	8270D		1	387913	09/01/16 00:46	MMC	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:57	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	388052	09/01/16 12:52	MMC	TAL EDI
Total/NA	Prep	3510C			386833	08/25/16 19:20	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386921	08/26/16 09:59	JHP	TAL EDI
Total/NA	Analysis	9056A		1	387412	08/30/16 01:54	MJA	TAL EDI
Total/NA	Analysis	9056A	DL	100	387602	08/30/16 15:53	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387734	08/30/16 23:49	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 16:46	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 10:37	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 06:15	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 15:44	RBS	TAL EDI
Total/NA	Prep	7470A			386973	08/26/16 11:58	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387030	08/26/16 14:22	RBS	TAL EDI
Total/NA	Prep	9012B			388435	09/02/16 14:46	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388488	09/02/16 17:52	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	388480	09/02/16 17:48	RAK	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Client Sample ID: TB-05-082216

Date Collected: 08/22/16 00:00
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 00:39	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386888	08/26/16 10:49	AAT	TAL EDI

Client Sample ID: SW-PMB-01-082316

Date Collected: 08/23/16 07:30
Date Received: 08/23/16 11:45

Lab Sample ID: 460-119025-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386589	08/25/16 07:33	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	386888	08/26/16 17:06	AAT	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:57	MBE	TAL EDI
Total/NA	Analysis	8270D		1	387913	09/01/16 01:05	MMC	TAL EDI
Total/NA	Prep	3510C			387194	08/27/16 12:57	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	388052	09/01/16 13:21	MMC	TAL EDI
Total/NA	Prep	3510C			386833	08/25/16 19:20	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386921	08/26/16 10:17	JHP	TAL EDI
Total/NA	Analysis	9056A		1	387412	08/30/16 02:12	MJA	TAL EDI
Total/NA	Analysis	9056A	DL	100	387602	08/30/16 16:11	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	387734	08/30/16 23:55	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			387601	08/30/16 09:37	MDC	TAL EDI
Dissolved	Prep	3010A			387604	08/30/16 09:54	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388223	09/01/16 16:51	MDC	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 10:37	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 06:21	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 15:46	RBS	TAL EDI
Total/NA	Prep	7470A			386973	08/26/16 11:58	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387030	08/26/16 14:24	RBS	TAL EDI
Total/NA	Prep	9012B			388435	09/02/16 14:46	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388488	09/02/16 17:53	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	388480	09/02/16 17:48	RAK	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Certification Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Laboratory: TestAmerica Edison

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New Jersey	NELAP	2	12028	06-30-17

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,4-Trichlorobenzene
8260C SIM		Water	1,2,3-Trichloropropane
8260C SIM		Water	1,2-Dibromo-3-Chloropropane
8260C SIM		Water	Ethylene Dibromide
8270D SIM	3510C	Water	Bis(2-chloroethyl)ether
9056A		Water	Chloride
9056A		Water	Sulfate

Method Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
9056A	Anions, Ion Chromatography	SW846	TAL EDI
6020A	Metals (ICP/MS)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
9012B	Cyanide, Total andor Amenable	SW846	TAL EDI
SM 2320B	Alkalinity	SM	TAL EDI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119025-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-119025-1	PMP-Pond-082216	Water	08/22/16 08:30	08/23/16 11:45
460-119025-2	Dup-03-082216	Water	08/22/16 12:00	08/23/16 11:45
460-119025-3	SW-PAB-02-082216	Water	08/22/16 14:45	08/23/16 11:45
460-119025-4	SW-PAB-03-082216	Water	08/22/16 13:00	08/23/16 11:45
460-119025-5	SW-PMB-02-082216	Water	08/22/16 17:45	08/23/16 11:45
460-119025-6	SW-MRB-01-082216	Water	08/22/16 16:00	08/23/16 11:45
460-119025-7	SW-NOB-01-082216	Water	08/22/16 10:00	08/23/16 11:45
460-119025-8	RW-12(55-65)-082216	Water	08/22/16 16:10	08/23/16 11:45
460-119025-9	RW-2(452-462)-082216	Water	08/22/16 13:00	08/23/16 11:45
460-119025-10	RW-2(279-289)-082216	Water	08/22/16 11:05	08/23/16 11:45
460-119025-11	CMP-160-082216	Water	08/22/16 13:20	08/23/16 11:45
460-119025-12	CMP-100-082216	Water	08/22/16 11:40	08/23/16 11:45
460-119025-13	CMP-275-082216	Water	08/22/16 14:50	08/23/16 11:45
460-119025-14	CMP-50-082216	Water	08/22/16 10:30	08/23/16 11:45
460-119025-15	TB-05-082216	Water	08/22/16 00:00	08/23/16 11:45
460-119025-16	SW-PMB-01-082316	Water	08/23/16 07:30	08/23/16 11:45

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CU

460-119025 Chain of Custody

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

9/7/2016

Name (for report and invoice): Tim Roepe	Samplers Name (Printed): Robert Lautenberg	Site/Project Identification: Ford - Ringwood
Company: Cornerstone Environmental Group	P. O. #: 140802-015	State (Location of site): NJ: ☐ NY: ☐ Other:
Address: 100 Crystal Run Rd, Suite 101	Analysis Turnaround Time: Standard ☒	Regulatory Program: DKQP: ☐
City: Middletown State: NY 10941	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	LAB USE ONLY Project No:
Phone: 845 695 0200 Fax:		Job No: 119025

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC+15 TICs 8260B	TCL SVOC+15 TICs 8270B	TAL Metals - Total +Filtered - 6010B/7470A	PCB's	Alkalinity, Total as CaCO3 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	Sample Numbers
PMP-Pond-082216	8/22/16	08:30	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-1
Dup-03-082216	8/22/16	12:00	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-2
SW-PAB-02-082216	8/22/16	14:45	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-3
SW-PAB-03-082216	8/22/16	13:00	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-4
SW-PMB-02-082216	8/22/16	17:45	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-5
SW-MRB-01-082216	8/22/16	16:00	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-6
SW-NOB-01-082216	8/22/16	10:00	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-7
RW-12(55-65)-082216	8/22/16	16:10	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-8
RW-2(452-462)-082216	8/22/16	13:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-9
RW-2(279-289)-082216	8/22/16	11:05	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-10

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____ — Soil: / Water:

Special Instructions: Do not report 1,4 Dioxane for VOC's + SVOC's

Water Metals Filtered (Yes/No)? No

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/23/16 820	1)	TA
2) James Tim	TA	8/23/16 1145	2)	TA Edison
3)			3)	8/23/16. 1145
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (133), Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0715)

TRN-NJ-05 06/04/06/07/09

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice): Tim Roeper	Samplers Name (Printed): Robert Lastenberg	Site/Project Identification: Ford - Ringwood
Company: Cornerstone Environmental Group	P. O. #: 140802-015	State (Location of site): NJ: ☒ NY: ☐ Other:
Address: 100 Crystal Run Rd. Suite 101	Analysis Turnaround Time: Standard ☒	Regulatory Program: DKQP: ☐
City: Middletown State: NY 10941	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	LAB USE ONLY Project No:
Phone: 845 695 0200 Fax:		Job No: 119025

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL Vocs + 15 TICs 8260B	TCL SVOCs + 15 TICs 8270B	TAL Metals - Total + Filtered - comptom	Pb Bs	Alkalinity, Total as CaCO3 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	Sample Numbers
CMP-160-082216	8/22/16	13:20	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-11
CMP-100-082216	8/22/16	11:40	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-12
CMP-275-082216	8/22/16	14:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-13
CMP-50-082216	8/22/16	10:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	14
TB-05-082216	8/22/16	—	BW	3	✓								-15
SW-PMB-01-082316	8/23/16	07:30	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-16

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____ Soil: Water:

Special Instructions: Do not report 1,4 Dioxane for VOCs + SVOCs Water Metals Filtered (Yes/No)? No

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/23/16 P20	1)	TA
Relinquished by 2)	Company TA	Date / Time 8/23/16 1145	Received by 2)	Company TA Edison
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578) IR7 - NOCS 06/04/06/07/09

Job Number: 119025

TestAmerica Edison
Receipt Temperature and pH Log

Page ____ of ____

Number of Coolers: 5 IR Gun #: 7

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	0.6 °C	0.6 °C	Cooler #4:	0.9 °C	0.9 °C	Cooler #7:	°C	°C
Cooler #2:	0.4 °C	0.4 °C	Cooler #5:	0.7 °C	0.7 °C	Cooler #8:	°C	°C
Cooler #3:	0.6 °C	0.6 °C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
1				<2								>12			
2				<2								>12			
3				<2								>12			
4				<2								>12			
5				<2								>12			
6				<2								>12			
7				<2								>12			
8				<2								>12			
9				<2								>12			
10				<2								>12			
11				<2								>12			
12				<2								>12			
13				<2								>12			

If pH adjustments are required record the information below:

Sample No(s). adjusted: NA

Preservative Name/Conc.: NA Volume of Preservative used (ml): NA

Lot # of Preservative(s): NA Expiration Date: NA

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: _____ Date: 8/23/16

TestAmerica Edison
Receipt Temperature and pH Log

Page ____ of ____

Job Number: 119025

Number of Coolers: 5 IR Gun # 7

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	0.6 °C	°C	Cooler #4:	0.7 °C	°C	Cooler #7:	°C	°C
Cooler #2:	0.4 °C	°C	Cooler #5:	0.9 °C	°C	Cooler #8:	°C	°C
Cooler #3:	1.0 °C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
14				<2								>12			
16				<2								>12			

If pH adjustments are required record the information below:

Sample No(s). adjusted: N/A

Preservative Name/Conc.: N/A Volume of Preservative used (ml): N/A

Lot # of Preservative(s): N/A Expiration Date: N/A

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: KL Date: 8/23/16

Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 460-119025-1

Login Number: 119025
List Number: 1
Creator: Rivera, Kenneth

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6°C, 0.4°C, 0.6°C, 0.7°C, 0.9°C, IR #7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-119092-1
Client Project/Site: FORD Ringwood Mines E203361

For:
Cornerstone Environmental Group, LLC
100 Crystal Run Road
Suite 101
Middletown, New York 10941

Attn: Tim Roeper

Maegen Pane

Authorized for release by:
9/9/2016 12:39:43 PM
Maegen Pane, Project Management Assistant I
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Designee for

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(732)549-3900
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Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	This flag indicates the presumptive evidence of a compound.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	RPD of the LCS and LCSD exceeds the control limits
F1	MS and/or MSD Recovery is outside acceptance limits.

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.

HPLC/IC

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD Recovery is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name: TestAmerica Edison

Client: Cornerstone Environmental Group, LLC

Project Location: FORD Ringwood Mines E203361

Project Number: 460-119092-1

Laboratory Sample ID(s): 460-119092-1, 460-119092-2, 460-119092-3, 460-119092-4, 460-119092-5, 460-119092-6, 460-119092-7, 460-119092-8

Sampling Date(s): 08/23/2016

List DKQP Methods Used: 8260C, 8260C SIM, 8270D, 8270D SIM, 8082A, 6020A, 7470A, 9012B

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	☑Yes ☐No
1A	Were the method specified handling, preservation, and holding time requirements met?	☐Yes ☐No ☑ See case narrative
1B	*EPH Method:* Was the EPH method conducted without significant modifications? (see Section 11.3 of respective DKQ methods)	☐Yes ☐No ☑N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody documents(s)?	☐Yes ☐No ☑ See case narrative
3	Were samples received at an appropriate temperature (4±2° C)?	☑Yes ☐No ☐N/A
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	☐Yes ☑No
5	a) Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	☐Yes ☐No ☑ See case narrative
	b) Were these reporting limits met?	☐Yes ☐No ☐N/A ☑ See case narrative
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	☑Yes ☐No
7	Are project-specific matrix spike and/or laboratory duplicates included in this data set?	☐Yes ☑No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information should be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet requirements for "Data of Known Quality."

Job ID: 460-119092-1

Laboratory: TestAmerica Edison

Narrative

Job Narrative
460-119092-1

Comments
No additional comments.

Receipt
The samples were received on 8/24/2016 12:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 0.2º C, 0.8º C and 0.9º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 460-386844 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270D: The continuing calibration verification (CCV) analyzed in batch 460-387551 was outside the method criteria for the following analyte(s): 4-Chloro-3-methylphenol, N-Nitrosodi-n-propylamine and Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch preparation batch 460-387311 and analytical batch 460-387551 recovered outside control limits for 2-Methylphenol. This analyte was outside DKQP limits, but within the house limits; therefore, the data have been reported.

Method(s) 8270D: The method blank for preparation batch 460-387196 and analytical batch 460-388543 contained Bis(2-ethylhexyl) phthalate and Di-n-butyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8270D: The laboratory control sample (LCS) for batch preparation batch 460-387196 and analytical batch 460-388543 recovered outside control limits for Caprolactam. This analyte was outside DKQP limits, but within the house limits; therefore, the data have been reported.

Method(s) 8270D: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 460-387196 recovered outside control limits for the following analytes: Caprolactam.

Method(s) 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch preparation batch 460-387196 and analytical batch 460-388543 recovered outside control limits for multiple analytes. These analytes were outside DKQP limits, but within the house limits; therefore, the data have been reported.

Method(s) 8270D SIM: The continuing calibration verification (CCV) analyzed in batch 460-388049 was outside the method criteria for the following analyte(s): Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8270D SIM: The continuing calibration verification (CCV) analyzed in batch 460-388356 was outside the method criteria for the following analyte(s): Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Job ID: 460-119092-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

Method(s) 8270D SIM: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch preparation batch 460-387196 and analytical batch 460-388356 recovered outside control limits for Hexachlorobenzene. This analyte was outside DKQP limits, but within the house limits; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method(s) 8082A: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for <386469> recovered outside control limits for the following analytes: PCB-1260. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 9056A: The following sample was diluted to bring the concentration of target analytes within the calibration range: (460-119025-L-9) at 200.0. Elevated reporting limits (RLs) are provided.

Method(s) 9056A: The following samples was diluted to bring the concentration of target analytes within the calibration range: RW-11D(262-267)-082316 (460-119092-1) and PMP-AS-230-082316 (460-119092-4) at 20.0 and 10.0. Elevated reporting limits (RLs) are provided.

Method(s) 9056A: The following sample was diluted to bring the concentration of target analytes within the calibration range: RW-3DD(175-180)-082316 (460-119092-6) at 10.0. Elevated reporting limits (RLs) are provided.

Method(s) 9056A: The following sample was diluted to bring the concentration of target analytes within the calibration range: RW-3DS(155-160)-082316 (460-119092-7) at 100.0. Elevated reporting limits (RLs) are provided.

Method(s) 9056A: The following sample was diluted to bring the concentration of target analytes within the calibration range: PMP-AS-180-082316 (460-119092-2) at 2.0. Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Client Sample ID: RW-11D(262-267)-082316 — Lab Sample ID: 460-119092-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	0.83	J	1.0	0.33	ug/L	1		8260C	Total/NA
2-Butanone (MEK)	8.2		5.0	2.2	ug/L	1		8260C	Total/NA
Acetone	46		5.0	1.1	ug/L	1		8260C	Total/NA
Benzene	6.4		1.0	0.090	ug/L	1		8260C	Total/NA
Carbon disulfide	12		1.0	0.22	ug/L	1		8260C	Total/NA
Chlorobenzene	4.6		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroethane	8.6		1.0	0.37	ug/L	1		8260C	Total/NA
Cyclohexane	0.31	J	1.0	0.26	ug/L	1		8260C	Total/NA
Isopropylbenzene	1.2		1.0	0.32	ug/L	1		8260C	Total/NA
Methylene Chloride	0.28	J	1.0	0.21	ug/L	1		8260C	Total/NA
Toluene	0.28	J	1.0	0.25	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	1.3	J B	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.5	J B	2.1	0.75	ug/L	1		8270D	Total/NA
Sulfate	2.01		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	56.8	D	2.40	0.60	mg/L	20		9056A	Total/NA
Arsenic	0.88	J	2.0	0.64	ug/L	2		6020A	Total/NA
Barium	233		4.0	1.2	ug/L	2		6020A	Total/NA
Chromium	4.3		4.0	1.3	ug/L	2		6020A	Total/NA
Manganese	6.8	J	8.0	2.5	ug/L	2		6020A	Total/NA
Nickel	11.9		4.0	1.4	ug/L	2		6020A	Total/NA
Selenium	1.3	J	10.0	0.73	ug/L	2		6020A	Total/NA
Aluminum	9100		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	184000		200	69.0	ug/L	2		6020A	Total/NA
Potassium	52500		200	91.4	ug/L	2		6020A	Total/NA
Calcium	200000		200	60.5	ug/L	2		6020A	Total/NA
Iron	127		120	42.4	ug/L	2		6020A	Total/NA
Arsenic	0.92	J	2.0	0.64	ug/L	2		6020A	Dissolved
Barium	238		4.0	1.2	ug/L	2		6020A	Dissolved
Nickel	9.4		4.0	1.4	ug/L	2		6020A	Dissolved
Selenium	1.4	J F1	10.0	0.73	ug/L	2		6020A	Dissolved
Aluminum	8170		40.0	18.2	ug/L	2		6020A	Dissolved
Sodium	187000		200	69.0	ug/L	2		6020A	Dissolved
Potassium	51300		200	91.4	ug/L	2		6020A	Dissolved
Calcium	183000		200	60.5	ug/L	2		6020A	Dissolved
Alkalinity	900		10.0	10.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: PMP-AS-180-082316 — Lab Sample ID: 460-119092-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.64	J	1.0	0.24	ug/L	1		8260C	Total/NA
1,4-Dichlorobenzene	0.67	J	1.0	0.33	ug/L	1		8260C	Total/NA
Benzene	5.9		1.0	0.090	ug/L	1		8260C	Total/NA
Carbon disulfide	0.24	J	1.0	0.22	ug/L	1		8260C	Total/NA
Chlorobenzene	1.5		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroethane	44		1.0	0.37	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.31	J	1.0	0.26	ug/L	1		8260C	Total/NA
Cyclohexane	1.4		1.0	0.26	ug/L	1		8260C	Total/NA
Isopropylbenzene	1.6		1.0	0.32	ug/L	1		8260C	Total/NA
Methylcyclohexane	0.47	J	1.0	0.22	ug/L	1		8260C	Total/NA
Methylene Chloride	0.25	J	1.0	0.21	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: PMP-AS-180-082316 (Continued) — Lab Sample ID: 460-119092-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.12	J	1.0	0.060	ug/L	1		8260C	Total/NA
Xylenes, Total	1.0	J	2.0	0.28	ug/L	1		8260C	Total/NA
Naphthalene	1.4	J	10	0.80	ug/L	1		8270D	Total/NA
Di-n-butyl phthalate	1.7	J B	10	0.82	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	2.2	B	2.0	0.72	ug/L	1		8270D	Total/NA
Sulfate	1.22		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	2.66	D	0.24	0.060	mg/L	2		9056A	Total/NA
Barium	457		4.0	1.2	ug/L	2		6020A	Total/NA
Chromium	3.2	J	4.0	1.3	ug/L	2		6020A	Total/NA
Copper	1.8	J	4.0	1.4	ug/L	2		6020A	Total/NA
Manganese	955		8.0	2.5	ug/L	2		6020A	Total/NA
Lead	131		1.2	0.38	ug/L	2		6020A	Total/NA
Vanadium	6.2		4.0	1.9	ug/L	2		6020A	Total/NA
Zinc	3090		160	69.5	ug/L	20		6020A	Total/NA
Aluminum	32.5	J	40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	5750		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	4730		200	63.6	ug/L	2		6020A	Total/NA
Potassium	2170		200	91.4	ug/L	2		6020A	Total/NA
Calcium	48100		200	60.5	ug/L	2		6020A	Total/NA
Iron	89600		120	42.4	ug/L	2		6020A	Total/NA
Barium	305		4.0	1.2	ug/L	2		6020A	Dissolved
Manganese	826		8.0	2.5	ug/L	2		6020A	Dissolved
Zinc	1500		40.0	17.4	ug/L	5		6020A	Dissolved
Sodium	5760		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	4410		200	63.6	ug/L	2		6020A	Dissolved
Potassium	2040		200	91.4	ug/L	2		6020A	Dissolved
Calcium	45300		200	60.5	ug/L	2		6020A	Dissolved
Iron	19400		120	42.4	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	173		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	173		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: PMP-AS-50-082316 — Lab Sample ID: 460-119092-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.46	J	1.0	0.21	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	1.5	J B	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.5	J B	2.1	0.75	ug/L	1		8270D	Total/NA
Chloride	1.32		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	7.30		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	10.1		4.0	1.2	ug/L	2		6020A	Total/NA
Copper	2.7	J	4.0	1.4	ug/L	2		6020A	Total/NA
Manganese	4.8	J	8.0	2.5	ug/L	2		6020A	Total/NA
Lead	1.7		1.2	0.38	ug/L	2		6020A	Total/NA
Zinc	405		16.0	7.0	ug/L	2		6020A	Total/NA
Aluminum	80.0		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	2510		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	1610		200	63.6	ug/L	2		6020A	Total/NA
Potassium	587		200	91.4	ug/L	2		6020A	Total/NA
Calcium	6650		200	60.5	ug/L	2		6020A	Total/NA
Iron	176		120	42.4	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: PMP-AS-50-082316 (Continued)

Lab Sample ID: 460-119092-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	9.4		4.0	1.2	ug/L	2		6020A	Dissolved
Copper	2.2	J	4.0	1.4	ug/L	2		6020A	Dissolved
Manganese	4.1	J	8.0	2.5	ug/L	2		6020A	Dissolved
Lead	0.44	J	1.2	0.38	ug/L	2		6020A	Dissolved
Zinc	428		16.0	7.0	ug/L	2		6020A	Dissolved
Aluminum	28.4	J	40.0	18.2	ug/L	2		6020A	Dissolved
Sodium	2730		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	1670		200	63.6	ug/L	2		6020A	Dissolved
Potassium	581		200	91.4	ug/L	2		6020A	Dissolved
Calcium	6290		200	60.5	ug/L	2		6020A	Dissolved
Iron	80.5	J	120	42.4	ug/L	2		6020A	Dissolved
Alkalinity	34.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: PMP-AS-230-082316

Lab Sample ID: 460-119092-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	0.66	J	1.0	0.22	ug/L	1		8260C	Total/NA
1,2-Dichloroethane	0.33	J	1.0	0.25	ug/L	1		8260C	Total/NA
1,3-Dichlorobenzene	2.7		1.0	0.33	ug/L	1		8260C	Total/NA
1,4-Dichlorobenzene	7.7		1.0	0.33	ug/L	1		8260C	Total/NA
Benzene	29		1.0	0.090	ug/L	1		8260C	Total/NA
Chlorobenzene	20		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroethane	17		1.0	0.37	ug/L	1		8260C	Total/NA
Cyclohexane	3.5		1.0	0.26	ug/L	1		8260C	Total/NA
Isopropylbenzene	13		1.0	0.32	ug/L	1		8260C	Total/NA
Methylcyclohexane	0.73	J	1.0	0.22	ug/L	1		8260C	Total/NA
Methylene Chloride	0.81	J	1.0	0.21	ug/L	1		8260C	Total/NA
Toluene	0.28	J	1.0	0.25	ug/L	1		8260C	Total/NA
Xylenes, Total	1.1	J	2.0	0.28	ug/L	1		8260C	Total/NA
Naphthalene	5.7	J	10	0.80	ug/L	1		8270D	Total/NA
Di-n-butyl phthalate	1.7	J B	10	0.82	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.5	J B	2.0	0.72	ug/L	1		8270D	Total/NA
Sulfate	0.67		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	11.6	D	1.20	0.30	mg/L	10		9056A	Total/NA
Barium	553		4.0	1.2	ug/L	2		6020A	Total/NA
Chromium	3.3	J	4.0	1.3	ug/L	2		6020A	Total/NA
Manganese	2340		8.0	2.5	ug/L	2		6020A	Total/NA
Lead	8.2		1.2	0.38	ug/L	2		6020A	Total/NA
Vanadium	3.7	J	4.0	1.9	ug/L	2		6020A	Total/NA
Zinc	294		16.0	7.0	ug/L	2		6020A	Total/NA
Aluminum	54.7		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	32400		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	13000		200	63.6	ug/L	2		6020A	Total/NA
Potassium	8030		200	91.4	ug/L	2		6020A	Total/NA
Calcium	109000		200	60.5	ug/L	2		6020A	Total/NA
Iron	139000		120	42.4	ug/L	2		6020A	Total/NA
Barium	137		4.0	1.2	ug/L	2		6020A	Dissolved
Manganese	1860		8.0	2.5	ug/L	2		6020A	Dissolved
Zinc	175		16.0	7.0	ug/L	2		6020A	Dissolved
Sodium	31500		200	69.0	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: PMP-AS-230-082316 (Continued) — Lab Sample ID: 460-119092-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	11600		200	63.6	ug/L	2		6020A	Dissolved
Potassium	8260		200	91.4	ug/L	2		6020A	Dissolved
Calcium	97400		200	60.5	ug/L	2		6020A	Dissolved
Iron	22600		120	42.4	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	388		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	388		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-11S(236-241)-082316 — Lab Sample ID: 460-119092-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	10		5.0	1.1	ug/L	1		8260C	Total/NA
Methylene Chloride	0.63	J	1.0	0.21	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	2.4	J B	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	2.8	B	2.1	0.75	ug/L	1		8270D	Total/NA
Chloride	1.00		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	7.37		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	15.9		4.0	1.2	ug/L	2		6020A	Total/NA
Copper	5.8		4.0	1.4	ug/L	2		6020A	Total/NA
Manganese	327		8.0	2.5	ug/L	2		6020A	Total/NA
Zinc	12.2	J	16.0	7.0	ug/L	2		6020A	Total/NA
Sodium	2670		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	1860		200	63.6	ug/L	2		6020A	Total/NA
Potassium	1400		200	91.4	ug/L	2		6020A	Total/NA
Calcium	16000		200	60.5	ug/L	2		6020A	Total/NA
Iron	142		120	42.4	ug/L	2		6020A	Total/NA
Barium	15.7		4.0	1.2	ug/L	2		6020A	Dissolved
Copper	1.9	J	4.0	1.4	ug/L	2		6020A	Dissolved
Manganese	331		8.0	2.5	ug/L	2		6020A	Dissolved
Zinc	11.0	J	16.0	7.0	ug/L	2		6020A	Dissolved
Sodium	2920		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	2030		200	63.6	ug/L	2		6020A	Dissolved
Potassium	1390		200	91.4	ug/L	2		6020A	Dissolved
Calcium	15200		200	60.5	ug/L	2		6020A	Dissolved
Mercury	0.49		0.20	0.17	ug/L	1		7470A	Total/NA
Bicarbonate Alkalinity as CaCO3	46.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	46.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-3DD(175-180)-082316 — Lab Sample ID: 460-119092-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	2.2		1.0	0.24	ug/L	1		8260C	Total/NA
2-Butanone (MEK)	3.6	J	5.0	2.2	ug/L	1		8260C	Total/NA
Acetone	13		5.0	1.1	ug/L	1		8260C	Total/NA
Benzene	0.26	J	1.0	0.090	ug/L	1		8260C	Total/NA
Carbon disulfide	2.5		1.0	0.22	ug/L	1		8260C	Total/NA
Bis(2-ethylhexyl) phthalate	0.96	J	2.1	0.75	ug/L	1		8270D	Total/NA
Chloride - DL	12.3	D	1.20	0.30	mg/L	10		9056A	Total/NA
Sulfate - DL	37.2	D	6.00	1.05	mg/L	10		9056A	Total/NA
Arsenic	16.8		2.0	0.64	ug/L	2		6020A	Total/NA
Barium	8.5		4.0	1.2	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RW-3DD(175-180)-082316 (Continued) — Lab Sample ID: 460-119092-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	4.0		4.0	1.9	ug/L	2		6020A	Total/NA
Aluminum	102		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	35800		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	1460		200	63.6	ug/L	2		6020A	Total/NA
Potassium	8480		200	91.4	ug/L	2		6020A	Total/NA
Calcium	26300		200	60.5	ug/L	2		6020A	Total/NA
Arsenic	16.6		2.0	0.64	ug/L	2		6020A	Dissolved
Barium	4.8		4.0	1.2	ug/L	2		6020A	Dissolved
Vanadium	3.4	J	4.0	1.9	ug/L	2		6020A	Dissolved
Aluminum	78.5		40.0	18.2	ug/L	2		6020A	Dissolved
Sodium	31800		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	1740		200	63.6	ug/L	2		6020A	Dissolved
Potassium	8600		200	91.4	ug/L	2		6020A	Dissolved
Calcium	11400		200	60.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	8.0		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	64.3		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-3DS(155-160)-082316 — Lab Sample ID: 460-119092-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	2.2		1.0	0.24	ug/L	1		8260C	Total/NA
Acetone	11		5.0	1.1	ug/L	1		8260C	Total/NA
Benzene	0.13	J	1.0	0.090	ug/L	1		8260C	Total/NA
Carbon disulfide	6.5		1.0	0.22	ug/L	1		8260C	Total/NA
Ethylbenzene	0.31	J	1.0	0.30	ug/L	1		8260C	Total/NA
Toluene	0.67	J	1.0	0.25	ug/L	1		8260C	Total/NA
Xylenes, Total	0.58	J	2.0	0.28	ug/L	1		8260C	Total/NA
Di-n-butyl phthalate	1.7	J B	10	0.85	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	1.8	J B	2.1	0.75	ug/L	1		8270D	Total/NA
Chloride - DL	53.1	D	12.0	3.00	mg/L	100		9056A	Total/NA
Sulfate - DL	393	D	60.0	10.5	mg/L	100		9056A	Total/NA
Arsenic	14.7		2.0	0.64	ug/L	2		6020A	Total/NA
Barium	11.4		4.0	1.2	ug/L	2		6020A	Total/NA
Chromium	1.4	J	4.0	1.3	ug/L	2		6020A	Total/NA
Nickel	2.6	J	4.0	1.4	ug/L	2		6020A	Total/NA
Antimony	0.72	J	2.0	0.62	ug/L	2		6020A	Total/NA
Selenium	2.1	J	10.0	0.73	ug/L	2		6020A	Total/NA
Vanadium	5.5		4.0	1.9	ug/L	2		6020A	Total/NA
Aluminum	40.5		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	189000		200	69.0	ug/L	2		6020A	Total/NA
Potassium	32800		200	91.4	ug/L	2		6020A	Total/NA
Calcium	42500		200	60.5	ug/L	2		6020A	Total/NA
Arsenic	13.5		2.0	0.64	ug/L	2		6020A	Dissolved
Barium	13.4		4.0	1.2	ug/L	2		6020A	Dissolved
Nickel	2.5	J	4.0	1.4	ug/L	2		6020A	Dissolved
Selenium	2.7	J	10.0	0.73	ug/L	2		6020A	Dissolved
Vanadium	3.7	J	4.0	1.9	ug/L	2		6020A	Dissolved
Aluminum	54.4		40.0	18.2	ug/L	2		6020A	Dissolved
Sodium	166000		200	69.0	ug/L	2		6020A	Dissolved
Potassium	39000		200	91.4	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: RW-3DS(155-160)-082316 (Continued) — Lab Sample ID: 460-119092-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	42500		200	60.5	ug/L	2		6020A	Dissolved
Alkalinity	101		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: TB-06-082316 — Lab Sample ID: 460-119092-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.9		5.0	1.1	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RW-11D(262-267)-082316

Date Collected: 08/23/16 09:05
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-1

Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/30/16 20:13	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/30/16 20:13	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/30/16 20:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/30/16 20:13*	*1*
4-Bromofluorobenzene	*95*		*70 - 130*		*08/30/16 20:13*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/26/16 04:30	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/26/16 04:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/26/16 04:30	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/26/16 04:30	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/26/16 04:30	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/26/16 04:30	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/26/16 04:30	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/26/16 04:30	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/26/16 04:30	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/26/16 04:30	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/26/16 04:30	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/26/16 04:30	1
1,4-Dichlorobenzene	**0.83**	**J**	1.0	0.33	ug/L			08/26/16 04:30	1
2-Butanone (MEK)	**8.2**		5.0	2.2	ug/L			08/26/16 04:30	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/26/16 04:30	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/26/16 04:30	1
Acetone	**46**		5.0	1.1	ug/L			08/26/16 04:30	1
Benzene	**6.4**		1.0	0.090	ug/L			08/26/16 04:30	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/26/16 04:30	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/26/16 04:30	1
Carbon disulfide	**12**		1.0	0.22	ug/L			08/26/16 04:30	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/26/16 04:30	1
Chlorobenzene	**4.6**		1.0	0.24	ug/L			08/26/16 04:30	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/26/16 04:30	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/26/16 04:30	1
Chloroethane	**8.6**		1.0	0.37	ug/L			08/26/16 04:30	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/26/16 04:30	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/26/16 04:30	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/26/16 04:30	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/26/16 04:30	1
Cyclohexane	**0.31**	**J**	1.0	0.26	ug/L			08/26/16 04:30	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/26/16 04:30	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/26/16 04:30	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/26/16 04:30	1
Isopropylbenzene	**1.2**		1.0	0.32	ug/L			08/26/16 04:30	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/26/16 04:30	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/26/16 04:30	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/26/16 04:30	1
Methylene Chloride	**0.28**	**J**	1.0	0.21	ug/L			08/26/16 04:30	1
Styrene	0.17	U	1.0	0.17	ug/L			08/26/16 04:30	1

Client Sample ID: RW-11D(262-267)-082316
Date Collected: 08/23/16 09:05
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/26/16 04:30	1
Toluene	**0.28**	**J**	1.0	0.25	ug/L			08/26/16 04:30	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/26/16 04:30	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/26/16 04:30	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/26/16 04:30	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/26/16 04:30	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/26/16 04:30	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/26/16 04:30	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*7.4*	*J*	*ug/L*		*0.90*			*08/26/16 04:30*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*08/26/16 04:30*	*1*
4-Bromofluorobenzene	*103*		*70 - 130*		*08/26/16 04:30*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*08/26/16 04:30*	*1*
Toluene-d8 (Surr)	*91*		*70 - 130*		*08/26/16 04:30*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/27/16 13:07	09/02/16 15:44	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/27/16 13:07	09/02/16 15:44	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/27/16 13:07	09/02/16 15:44	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/27/16 13:07	09/02/16 15:44	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/27/16 13:07	09/02/16 15:44	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/27/16 13:07	09/02/16 15:44	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/27/16 13:07	09/02/16 15:44	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/27/16 13:07	09/02/16 15:44	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/27/16 13:07	09/03/16 08:08	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/27/16 13:07	09/03/16 08:08	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 13:07	09/03/16 08:08	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/27/16 13:07	09/03/16 08:08	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/27/16 13:07	09/03/16 08:08	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/27/16 13:07	09/03/16 08:08	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/27/16 13:07	09/03/16 08:08	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/27/16 13:07	09/03/16 08:08	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/27/16 13:07	09/03/16 08:08	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/27/16 13:07	09/03/16 08:08	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/27/16 13:07	09/03/16 08:08	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/27/16 13:07	09/03/16 08:08	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/27/16 13:07	09/03/16 08:08	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/27/16 13:07	09/03/16 08:08	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/27/16 13:07	09/03/16 08:08	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/27/16 13:07	09/03/16 08:08	1
Isophorone	0.70	U	10	0.70	ug/L		08/27/16 13:07	09/03/16 08:08	1
Naphthalene	0.83	U	10	0.83	ug/L		08/27/16 13:07	09/03/16 08:08	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/27/16 13:07	09/03/16 08:08	1

Client Sample ID: RW-11D(262-267)-082316
Date Collected: 08/23/16 09:05
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.79	U *	1.0	0.79	ug/L		08/27/16 13:07	09/03/16 08:08	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/27/16 13:07	09/03/16 08:08	1
Hexachlorocyclopentadiene	0.64	U *	10	0.64	ug/L		08/27/16 13:07	09/03/16 08:08	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/27/16 13:07	09/03/16 08:08	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/27/16 13:07	09/03/16 08:08	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 08:08	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/27/16 13:07	09/03/16 08:08	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/27/16 13:07	09/03/16 08:08	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/27/16 13:07	09/03/16 08:08	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/27/16 13:07	09/03/16 08:08	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/27/16 13:07	09/03/16 08:08	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/27/16 13:07	09/03/16 08:08	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 08:08	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 08:08	1
Fluorene	0.83	U	10	0.83	ug/L		08/27/16 13:07	09/03/16 08:08	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/27/16 13:07	09/03/16 08:08	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/27/16 13:07	09/03/16 08:08	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/27/16 13:07	09/03/16 08:08	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/27/16 13:07	09/03/16 08:08	1
Anthracene	0.59	U	10	0.59	ug/L		08/27/16 13:07	09/03/16 08:08	1
Carbazole	0.89	U	10	0.89	ug/L		08/27/16 13:07	09/03/16 08:08	1
Di-n-butyl phthalate	**1.3**	**J B**	10	0.85	ug/L		08/27/16 13:07	09/03/16 08:08	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/27/16 13:07	09/03/16 08:08	1
Pyrene	0.86	U	10	0.86	ug/L		08/27/16 13:07	09/03/16 08:08	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/27/16 13:07	09/03/16 08:08	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/27/16 13:07	09/03/16 08:08	1
Bis(2-ethylhexyl) phthalate	**1.5**	**J B**	2.1	0.75	ug/L		08/27/16 13:07	09/03/16 08:08	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/27/16 13:07	09/03/16 08:08	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/27/16 13:07	09/03/16 08:08	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/27/16 13:07	09/03/16 08:08	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/27/16 13:07	09/03/16 08:08	1
Acetophenone	1.1	U	10	1.1	ug/L		08/27/16 13:07	09/03/16 08:08	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/27/16 13:07	09/03/16 08:08	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 13:07	09/03/16 08:08	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/27/16 13:07	09/03/16 08:08	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/27/16 13:07	09/03/16 08:08	1
1,2,4,5-Tetrachlorobenzene	0.45	U *	10	0.45	ug/L		08/27/16 13:07	09/03/16 08:08	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/27/16 13:07	09/03/16 08:08	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/27/16 13:07	09/03/16 08:08	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/27/16 13:07	09/03/16 08:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*91*		*30 - 130*	*08/27/16 13:07*	*09/03/16 08:08*	*1*
Phenol-d5 (Surr)	*27*		*15 - 110*	*08/27/16 13:07*	*09/03/16 08:08*	*1*
Terphenyl-d14 (Surr)	*101*		*30 - 130*	*08/27/16 13:07*	*09/03/16 08:08*	*1*
2,4,6-Tribromophenol (Surr)	*105*		*15 - 110*	*08/27/16 13:07*	*09/03/16 08:08*	*1*
2-Fluorophenol (Surr)	*54*		*15 - 110*	*08/27/16 13:07*	*09/03/16 08:08*	*1*
2-Fluorobiphenyl	*69*		*30 - 130*	*08/27/16 13:07*	*09/03/16 08:08*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Client Sample ID: RW-11D(262-267)-082316
Date Collected: 08/23/16 09:05
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-1
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:35	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:35	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:35	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:35	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:35	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:35	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 10:35	1
PCB-1260	0.084	U *	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 10:35	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 10:35	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 10:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*47*	*p*	*30 - 150*	*08/25/16 19:20*	*08/26/16 10:35*	*1*
Tetrachloro-m-xylene	*82*		*30 - 150*	*08/25/16 19:20*	*08/26/16 10:35*	*1*
DCB Decachlorobiphenyl	*78*	*p*	*30 - 150*	*08/25/16 19:20*	*08/26/16 10:35*	*1*
DCB Decachlorobiphenyl	*121*		*30 - 150*	*08/25/16 19:20*	*08/26/16 10:35*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**2.01**		0.60	0.11	mg/L			09/06/16 13:42	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**56.8**	**D**	2.40	0.60	mg/L			09/06/16 15:50	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/29/16 10:37	09/02/16 06:32	2
Arsenic	**0.88**	**J**	2.0	0.64	ug/L		08/29/16 10:37	09/02/16 06:32	2
Barium	**233**		4.0	1.2	ug/L		08/29/16 10:37	09/02/16 06:32	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/29/16 10:37	09/02/16 06:32	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/29/16 10:37	09/02/16 06:32	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/29/16 10:37	09/02/16 06:32	2
Chromium	**4.3**		4.0	1.3	ug/L		08/29/16 10:37	09/02/16 06:32	2
Copper	1.4	U	4.0	1.4	ug/L		08/29/16 10:37	09/02/16 06:32	2
Manganese	**6.8**	**J**	8.0	2.5	ug/L		08/29/16 10:37	09/02/16 06:32	2
Nickel	**11.9**		4.0	1.4	ug/L		08/29/16 10:37	09/02/16 06:32	2
Lead	0.38	U	1.2	0.38	ug/L		08/29/16 10:37	09/02/16 06:32	2
Antimony	0.62	U	2.0	0.62	ug/L		08/29/16 10:37	09/02/16 06:32	2
Selenium	**1.3**	**J**	10.0	0.73	ug/L		08/29/16 10:37	09/02/16 06:32	2
Vanadium	1.9	U	4.0	1.9	ug/L		08/29/16 10:37	09/02/16 06:32	2
Zinc	7.0	U	16.0	7.0	ug/L		08/29/16 10:37	09/02/16 06:32	2
Aluminum	**9100**		40.0	18.2	ug/L		08/29/16 10:37	09/02/16 06:32	2
Sodium	**184000**		200	69.0	ug/L		08/29/16 10:37	09/02/16 06:32	2
Magnesium	63.6	U	200	63.6	ug/L		08/29/16 10:37	09/02/16 06:32	2
Potassium	**52500**		200	91.4	ug/L		08/29/16 10:37	09/02/16 06:32	2
Calcium	**200000**		200	60.5	ug/L		08/29/16 10:37	09/02/16 06:32	2
Iron	**127**		120	42.4	ug/L		08/29/16 10:37	09/02/16 06:32	2
Thallium	0.26	U	0.80	0.26	ug/L		08/29/16 10:37	09/02/16 06:32	2

Client Sample ID: RW-11D(262-267)-082316

Lab Sample ID: 460-119092-1

Date Collected: 08/23/16 09:05

Matrix: Water

Date Received: 08/24/16 12:40

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U F1	2.0	1.3	ug/L		09/02/16 10:43	09/03/16 06:53	2
Arsenic	**0.92**	**J**	2.0	0.64	ug/L		09/02/16 10:43	09/03/16 06:53	2
Barium	**238**		4.0	1.2	ug/L		09/02/16 10:43	09/03/16 06:53	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 10:43	09/03/16 06:53	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 10:43	09/03/16 06:53	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 10:43	09/03/16 06:53	2
Chromium	1.3	U	4.0	1.3	ug/L		09/02/16 10:43	09/03/16 06:53	2
Copper	1.4	U	4.0	1.4	ug/L		09/02/16 10:43	09/03/16 06:53	2
Manganese	2.5	U	8.0	2.5	ug/L		09/02/16 10:43	09/03/16 06:53	2
Nickel	**9.4**		4.0	1.4	ug/L		09/02/16 10:43	09/03/16 06:53	2
Lead	0.38	U	1.2	0.38	ug/L		09/02/16 10:43	09/03/16 06:53	2
Antimony	0.62	U F1	2.0	0.62	ug/L		09/02/16 10:43	09/03/16 06:53	2
Selenium	**1.4**	**J F1**	10.0	0.73	ug/L		09/02/16 10:43	09/03/16 06:53	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/02/16 10:43	09/03/16 06:53	2
Zinc	7.0	U	16.0	7.0	ug/L		09/02/16 10:43	09/03/16 06:53	2
Aluminum	**8170**		40.0	18.2	ug/L		09/02/16 10:43	09/03/16 06:53	2
Sodium	**187000**		200	69.0	ug/L		09/02/16 10:43	09/03/16 18:29	2
Magnesium	63.6	U	200	63.6	ug/L		09/02/16 10:43	09/03/16 06:53	2
Potassium	**51300**		200	91.4	ug/L		09/02/16 10:43	09/03/16 06:53	2
Calcium	**183000**		200	60.5	ug/L		09/02/16 10:43	09/03/16 06:53	2
Iron	42.4	U	120	42.4	ug/L		09/02/16 10:43	09/03/16 06:53	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 10:43	09/03/16 06:53	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/29/16 12:16	08/29/16 14:12	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 15:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:49	09/06/16 14:59	1
Bicarbonate Alkalinity as CaCO3	10.0	U	10.0	10.0	mg/L			09/06/16 17:00	1
Alkalinity	**900**		10.0	10.0	mg/L			09/06/16 17:00	1

Client Sample ID: PMP-AS-180-082316

Lab Sample ID: 460-119092-2

Date Collected: 08/23/16 10:25

Matrix: Water

Date Received: 08/24/16 12:40

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/30/16 02:49	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/30/16 02:49	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/30/16 02:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*08/30/16 02:49*	*1*
4-Bromofluorobenzene	*88*		*70 - 130*		*08/30/16 02:49*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Client Sample ID: PMP-AS-180-082316
Date Collected: 08/23/16 10:25
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/26/16 04:57	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/26/16 04:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/26/16 04:57	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/26/16 04:57	1
1,1-Dichloroethane	**0.64**	**J**	1.0	0.24	ug/L			08/26/16 04:57	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/26/16 04:57	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/26/16 04:57	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/26/16 04:57	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/26/16 04:57	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/26/16 04:57	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/26/16 04:57	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/26/16 04:57	1
1,4-Dichlorobenzene	**0.67**	**J**	1.0	0.33	ug/L			08/26/16 04:57	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/26/16 04:57	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/26/16 04:57	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/26/16 04:57	1
Acetone	1.1	U	5.0	1.1	ug/L			08/26/16 04:57	1
Benzene	**5.9**		1.0	0.090	ug/L			08/26/16 04:57	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/26/16 04:57	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/26/16 04:57	1
Carbon disulfide	**0.24**	**J**	1.0	0.22	ug/L			08/26/16 04:57	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/26/16 04:57	1
Chlorobenzene	**1.5**		1.0	0.24	ug/L			08/26/16 04:57	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/26/16 04:57	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/26/16 04:57	1
Chloroethane	**44**		1.0	0.37	ug/L			08/26/16 04:57	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/26/16 04:57	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/26/16 04:57	1
cis-1,2-Dichloroethene	**0.31**	**J**	1.0	0.26	ug/L			08/26/16 04:57	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/26/16 04:57	1
Cyclohexane	**1.4**		1.0	0.26	ug/L			08/26/16 04:57	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/26/16 04:57	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/26/16 04:57	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/26/16 04:57	1
Isopropylbenzene	**1.6**		1.0	0.32	ug/L			08/26/16 04:57	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/26/16 04:57	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/26/16 04:57	1
Methylcyclohexane	**0.47**	**J**	1.0	0.22	ug/L			08/26/16 04:57	1
Methylene Chloride	**0.25**	**J**	1.0	0.21	ug/L			08/26/16 04:57	1
Styrene	0.17	U	1.0	0.17	ug/L			08/26/16 04:57	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/26/16 04:57	1
Toluene	0.25	U	1.0	0.25	ug/L			08/26/16 04:57	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/26/16 04:57	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/26/16 04:57	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/26/16 04:57	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/26/16 04:57	1
Vinyl chloride	**0.12**	**J**	1.0	0.060	ug/L			08/26/16 04:57	1
Xylenes, Total	**1.0**	**J**	2.0	0.28	ug/L			08/26/16 04:57	1

Client Sample ID: PMP-AS-180-082316

Date Collected: 08/23/16 10:25
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-2

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/26/16 04:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 130		08/26/16 04:57	1
4-Bromofluorobenzene	107		70 - 130		08/26/16 04:57	1
Dibromofluoromethane (Surr)	115		70 - 130		08/26/16 04:57	1
Toluene-d8 (Surr)	92		70 - 130		08/26/16 04:57	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/27/16 13:07	09/02/16 16:13	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/27/16 13:07	09/02/16 16:13	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/27/16 13:07	09/02/16 16:13	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/27/16 13:07	09/02/16 16:13	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/27/16 13:07	09/02/16 16:13	1
Hexachlorobenzene	0.0090	U *	0.020	0.0090	ug/L		08/27/16 13:07	09/02/16 16:13	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/27/16 13:07	09/02/16 16:13	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/27/16 13:07	09/02/16 16:13	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/27/16 13:07	09/03/16 08:28	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/27/16 13:07	09/03/16 08:28	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 13:07	09/03/16 08:28	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/27/16 13:07	09/03/16 08:28	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/27/16 13:07	09/03/16 08:28	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/27/16 13:07	09/03/16 08:28	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/27/16 13:07	09/03/16 08:28	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/27/16 13:07	09/03/16 08:28	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		08/27/16 13:07	09/03/16 08:28	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/27/16 13:07	09/03/16 08:28	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/27/16 13:07	09/03/16 08:28	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/27/16 13:07	09/03/16 08:28	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/27/16 13:07	09/03/16 08:28	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/27/16 13:07	09/03/16 08:28	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/27/16 13:07	09/03/16 08:28	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/27/16 13:07	09/03/16 08:28	1
Isophorone	0.67	U	10	0.67	ug/L		08/27/16 13:07	09/03/16 08:28	1
Naphthalene	**1.4**	**J**	10	0.80	ug/L		08/27/16 13:07	09/03/16 08:28	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/27/16 13:07	09/03/16 08:28	1
Hexachlorobutadiene	0.76	U *	1.0	0.76	ug/L		08/27/16 13:07	09/03/16 08:28	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/27/16 13:07	09/03/16 08:28	1
Hexachlorocyclopentadiene	0.61	U *	10	0.61	ug/L		08/27/16 13:07	09/03/16 08:28	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/27/16 13:07	09/03/16 08:28	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/27/16 13:07	09/03/16 08:28	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/27/16 13:07	09/03/16 08:28	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/27/16 13:07	09/03/16 08:28	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/27/16 13:07	09/03/16 08:28	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/27/16 13:07	09/03/16 08:28	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/27/16 13:07	09/03/16 08:28	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/27/16 13:07	09/03/16 08:28	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Client Sample ID: PMP-AS-180-082316
Date Collected: 08/23/16 10:25
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/27/16 13:07	09/03/16 08:28	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 08:28	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/27/16 13:07	09/03/16 08:28	1
Fluorene	0.80	U	10	0.80	ug/L		08/27/16 13:07	09/03/16 08:28	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/27/16 13:07	09/03/16 08:28	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/27/16 13:07	09/03/16 08:28	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 08:28	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/27/16 13:07	09/03/16 08:28	1
Anthracene	0.57	U	10	0.57	ug/L		08/27/16 13:07	09/03/16 08:28	1
Carbazole	0.85	U	10	0.85	ug/L		08/27/16 13:07	09/03/16 08:28	1
Di-n-butyl phthalate	**1.7**	**J B**	10	0.82	ug/L		08/27/16 13:07	09/03/16 08:28	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/27/16 13:07	09/03/16 08:28	1
Pyrene	0.83	U	10	0.83	ug/L		08/27/16 13:07	09/03/16 08:28	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/27/16 13:07	09/03/16 08:28	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/27/16 13:07	09/03/16 08:28	1
Bis(2-ethylhexyl) phthalate	**2.2**	**B**	2.0	0.72	ug/L		08/27/16 13:07	09/03/16 08:28	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/27/16 13:07	09/03/16 08:28	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/27/16 13:07	09/03/16 08:28	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/27/16 13:07	09/03/16 08:28	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/27/16 13:07	09/03/16 08:28	1
Acetophenone	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 08:28	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/27/16 13:07	09/03/16 08:28	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 13:07	09/03/16 08:28	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/27/16 13:07	09/03/16 08:28	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/27/16 13:07	09/03/16 08:28	1
1,2,4,5-Tetrachlorobenzene	0.43	U *	10	0.43	ug/L		08/27/16 13:07	09/03/16 08:28	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/27/16 13:07	09/03/16 08:28	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 08:28	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/27/16 13:07	09/03/16 08:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*77*		*30 - 130*	*08/27/16 13:07*	*09/03/16 08:28*	*1*
Phenol-d5 (Surr)	*23*		*15 - 110*	*08/27/16 13:07*	*09/03/16 08:28*	*1*
Terphenyl-d14 (Surr)	*90*		*30 - 130*	*08/27/16 13:07*	*09/03/16 08:28*	*1*
2,4,6-Tribromophenol (Surr)	*103*		*15 - 110*	*08/27/16 13:07*	*09/03/16 08:28*	*1*
2-Fluorophenol (Surr)	*48*		*15 - 110*	*08/27/16 13:07*	*09/03/16 08:28*	*1*
2-Fluorobiphenyl	*67*		*30 - 130*	*08/27/16 13:07*	*09/03/16 08:28*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:53	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:53	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:53	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:53	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:53	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 10:53	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 10:53	1
PCB-1260	0.084	U *	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 10:53	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 10:53	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 10:53	1

Client Sample ID: PMP-AS-180-082316

Date Collected: 08/23/16 10:25
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-2

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*30 - 150*	*08/25/16 19:20*	*08/26/16 10:53*	*1*
Tetrachloro-m-xylene	*80*		*30 - 150*	*08/25/16 19:20*	*08/26/16 10:53*	*1*
DCB Decachlorobiphenyl	*96*		*30 - 150*	*08/25/16 19:20*	*08/26/16 10:53*	*1*
DCB Decachlorobiphenyl	*95*		*30 - 150*	*08/25/16 19:20*	*08/26/16 10:53*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**1.22**		0.60	0.11	mg/L			09/06/16 14:01	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.66**	**D**	0.24	0.060	mg/L			09/06/16 18:24	2

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/29/16 10:37	09/02/16 06:38	2
Arsenic	0.64	U	2.0	0.64	ug/L		08/29/16 10:37	09/02/16 06:38	2
Barium	**457**		4.0	1.2	ug/L		08/29/16 10:37	09/02/16 06:38	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/29/16 10:37	09/02/16 06:38	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/29/16 10:37	09/02/16 06:38	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/29/16 10:37	09/02/16 06:38	2
Chromium	**3.2**	**J**	4.0	1.3	ug/L		08/29/16 10:37	09/02/16 06:38	2
Copper	**1.8**	**J**	4.0	1.4	ug/L		08/29/16 10:37	09/02/16 06:38	2
Manganese	**955**		8.0	2.5	ug/L		08/29/16 10:37	09/02/16 06:38	2
Nickel	1.4	U	4.0	1.4	ug/L		08/29/16 10:37	09/02/16 06:38	2
Lead	**131**		1.2	0.38	ug/L		08/29/16 10:37	09/02/16 06:38	2
Antimony	0.62	U	2.0	0.62	ug/L		08/29/16 10:37	09/02/16 06:38	2
Selenium	0.73	U	10.0	0.73	ug/L		08/29/16 10:37	09/02/16 06:38	2
Vanadium	**6.2**		4.0	1.9	ug/L		08/29/16 10:37	09/02/16 06:38	2
Zinc	**3090**		160	69.5	ug/L		08/29/16 10:37	09/02/16 06:44	20
Aluminum	**32.5**	**J**	40.0	18.2	ug/L		08/29/16 10:37	09/02/16 06:38	2
Sodium	**5750**		200	69.0	ug/L		08/29/16 10:37	09/02/16 06:38	2
Magnesium	**4730**		200	63.6	ug/L		08/29/16 10:37	09/02/16 06:38	2
Potassium	**2170**		200	91.4	ug/L		08/29/16 10:37	09/02/16 06:38	2
Calcium	**48100**		200	60.5	ug/L		08/29/16 10:37	09/02/16 06:38	2
Iron	**89600**		120	42.4	ug/L		08/29/16 10:37	09/02/16 06:38	2
Thallium	0.26	U	0.80	0.26	ug/L		08/29/16 10:37	09/02/16 06:38	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/02/16 10:43	09/03/16 07:05	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/02/16 10:43	09/03/16 07:05	2
Barium	**305**		4.0	1.2	ug/L		09/02/16 10:43	09/03/16 07:05	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 10:43	09/03/16 07:05	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 10:43	09/03/16 07:05	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 10:43	09/03/16 07:05	2
Chromium	1.3	U	4.0	1.3	ug/L		09/02/16 10:43	09/03/16 07:05	2
Copper	1.4	U	4.0	1.4	ug/L		09/02/16 10:43	09/03/16 07:05	2
Manganese	**826**		8.0	2.5	ug/L		09/02/16 10:43	09/03/16 07:05	2
Nickel	1.4	U	4.0	1.4	ug/L		09/02/16 10:43	09/03/16 07:05	2
Lead	0.38	U	1.2	0.38	ug/L		09/02/16 10:43	09/03/16 07:05	2

Client Sample ID: PMP-AS-180-082316

Lab Sample ID: 460-119092-2

Date Collected: 08/23/16 10:25

Matrix: Water

Date Received: 08/24/16 12:40

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.62	U	2.0	0.62	ug/L		09/02/16 10:43	09/03/16 07:05	2
Selenium	0.73	U	10.0	0.73	ug/L		09/02/16 10:43	09/03/16 07:05	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/02/16 10:43	09/03/16 07:05	2
Zinc	**1500**		40.0	17.4	ug/L		09/02/16 10:43	09/03/16 20:38	5
Aluminum	18.2	U	40.0	18.2	ug/L		09/02/16 10:43	09/03/16 07:05	2
Sodium	**5760**		200	69.0	ug/L		09/02/16 10:43	09/03/16 18:40	2
Magnesium	**4410**		200	63.6	ug/L		09/02/16 10:43	09/03/16 07:05	2
Potassium	**2040**		200	91.4	ug/L		09/02/16 10:43	09/03/16 07:05	2
Calcium	**45300**		200	60.5	ug/L		09/02/16 10:43	09/03/16 07:05	2
Iron	**19400**		120	42.4	ug/L		09/02/16 10:43	09/03/16 07:05	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 10:43	09/03/16 07:05	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/29/16 12:16	08/29/16 14:14	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 15:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:49	09/06/16 15:00	1
Bicarbonate Alkalinity as CaCO3	**173**		5.0	5.0	mg/L			09/06/16 17:00	1
Alkalinity	**173**		5.0	5.0	mg/L			09/06/16 17:00	1

Client Sample ID: PMP-AS-50-082316

Lab Sample ID: 460-119092-3

Date Collected: 08/23/16 09:10

Matrix: Water

Date Received: 08/24/16 12:40

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/30/16 03:14	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/30/16 03:14	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/30/16 03:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/30/16 03:14*	*1*
4-Bromofluorobenzene	*85*		*70 - 130*		*08/30/16 03:14*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/26/16 05:24	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/26/16 05:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/26/16 05:24	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/26/16 05:24	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/26/16 05:24	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/26/16 05:24	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/26/16 05:24	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/26/16 05:24	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/26/16 05:24	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Client Sample ID: PMP-AS-50-082316
Date Collected: 08/23/16 09:10
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/26/16 05:24	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/26/16 05:24	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/26/16 05:24	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/26/16 05:24	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/26/16 05:24	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/26/16 05:24	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/26/16 05:24	1
Acetone	1.1	U	5.0	1.1	ug/L			08/26/16 05:24	1
Benzene	0.090	U	1.0	0.090	ug/L			08/26/16 05:24	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/26/16 05:24	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/26/16 05:24	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/26/16 05:24	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/26/16 05:24	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/26/16 05:24	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/26/16 05:24	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/26/16 05:24	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/26/16 05:24	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/26/16 05:24	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/26/16 05:24	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/26/16 05:24	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/26/16 05:24	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/26/16 05:24	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/26/16 05:24	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/26/16 05:24	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/26/16 05:24	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/26/16 05:24	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/26/16 05:24	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/26/16 05:24	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/26/16 05:24	1
Methylene Chloride	**0.46**	**J**	1.0	0.21	ug/L			08/26/16 05:24	1
Styrene	0.17	U	1.0	0.17	ug/L			08/26/16 05:24	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/26/16 05:24	1
Toluene	0.25	U	1.0	0.25	ug/L			08/26/16 05:24	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/26/16 05:24	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/26/16 05:24	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/26/16 05:24	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/26/16 05:24	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/26/16 05:24	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/26/16 05:24	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/26/16 05:24*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/26/16 05:24*	*1*
4-Bromofluorobenzene	*107*		*70 - 130*		*08/26/16 05:24*	*1*
Dibromofluoromethane (Surr)	*114*		*70 - 130*		*08/26/16 05:24*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*08/26/16 05:24*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Client Sample ID: PMP-AS-50-082316
Date Collected: 08/23/16 09:10
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-3
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/27/16 13:07	09/02/16 16:42	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/27/16 13:07	09/02/16 16:42	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/27/16 13:07	09/02/16 16:42	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/27/16 13:07	09/02/16 16:42	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/27/16 13:07	09/02/16 16:42	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/27/16 13:07	09/02/16 16:42	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/27/16 13:07	09/02/16 16:42	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/27/16 13:07	09/02/16 16:42	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/27/16 13:07	09/03/16 08:47	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/27/16 13:07	09/03/16 08:47	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 13:07	09/03/16 08:47	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/27/16 13:07	09/03/16 08:47	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/27/16 13:07	09/03/16 08:47	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/27/16 13:07	09/03/16 08:47	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/27/16 13:07	09/03/16 08:47	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/27/16 13:07	09/03/16 08:47	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/27/16 13:07	09/03/16 08:47	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/27/16 13:07	09/03/16 08:47	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/27/16 13:07	09/03/16 08:47	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/27/16 13:07	09/03/16 08:47	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/27/16 13:07	09/03/16 08:47	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/27/16 13:07	09/03/16 08:47	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/27/16 13:07	09/03/16 08:47	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/27/16 13:07	09/03/16 08:47	1
Isophorone	0.70	U	10	0.70	ug/L		08/27/16 13:07	09/03/16 08:47	1
Naphthalene	0.83	U	10	0.83	ug/L		08/27/16 13:07	09/03/16 08:47	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/27/16 13:07	09/03/16 08:47	1
Hexachlorobutadiene	0.79	U *	1.0	0.79	ug/L		08/27/16 13:07	09/03/16 08:47	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/27/16 13:07	09/03/16 08:47	1
Hexachlorocyclopentadiene	0.64	U *	10	0.64	ug/L		08/27/16 13:07	09/03/16 08:47	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/27/16 13:07	09/03/16 08:47	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/27/16 13:07	09/03/16 08:47	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 08:47	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/27/16 13:07	09/03/16 08:47	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/27/16 13:07	09/03/16 08:47	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/27/16 13:07	09/03/16 08:47	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/27/16 13:07	09/03/16 08:47	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/27/16 13:07	09/03/16 08:47	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/27/16 13:07	09/03/16 08:47	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 08:47	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 08:47	1
Fluorene	0.83	U	10	0.83	ug/L		08/27/16 13:07	09/03/16 08:47	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/27/16 13:07	09/03/16 08:47	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/27/16 13:07	09/03/16 08:47	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/27/16 13:07	09/03/16 08:47	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/27/16 13:07	09/03/16 08:47	1
Anthracene	0.59	U	10	0.59	ug/L		08/27/16 13:07	09/03/16 08:47	1

Client Sample ID: PMP-AS-50-082316
Date Collected: 08/23/16 09:10
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbazole	0.89	U	10	0.89	ug/L		08/27/16 13:07	09/03/16 08:47	1
Di-n-butyl phthalate	**1.5**	**J B**	10	0.85	ug/L		08/27/16 13:07	09/03/16 08:47	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/27/16 13:07	09/03/16 08:47	1
Pyrene	0.86	U	10	0.86	ug/L		08/27/16 13:07	09/03/16 08:47	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/27/16 13:07	09/03/16 08:47	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/27/16 13:07	09/03/16 08:47	1
Bis(2-ethylhexyl) phthalate	**1.5**	**J B**	2.1	0.75	ug/L		08/27/16 13:07	09/03/16 08:47	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/27/16 13:07	09/03/16 08:47	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/27/16 13:07	09/03/16 08:47	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/27/16 13:07	09/03/16 08:47	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/27/16 13:07	09/03/16 08:47	1
Acetophenone	1.1	U	10	1.1	ug/L		08/27/16 13:07	09/03/16 08:47	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/27/16 13:07	09/03/16 08:47	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 13:07	09/03/16 08:47	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/27/16 13:07	09/03/16 08:47	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/27/16 13:07	09/03/16 08:47	1
1,2,4,5-Tetrachlorobenzene	0.45	U *	10	0.45	ug/L		08/27/16 13:07	09/03/16 08:47	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/27/16 13:07	09/03/16 08:47	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/27/16 13:07	09/03/16 08:47	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/27/16 13:07	09/03/16 08:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*85*		*30 - 130*	*08/27/16 13:07*	*09/03/16 08:47*	*1*
Phenol-d5 (Surr)	*20*		*15 - 110*	*08/27/16 13:07*	*09/03/16 08:47*	*1*
Terphenyl-d14 (Surr)	*91*		*30 - 130*	*08/27/16 13:07*	*09/03/16 08:47*	*1*
2,4,6-Tribromophenol (Surr)	*101*		*15 - 110*	*08/27/16 13:07*	*09/03/16 08:47*	*1*
2-Fluorophenol (Surr)	*37*		*15 - 110*	*08/27/16 13:07*	*09/03/16 08:47*	*1*
2-Fluorobiphenyl	*73*		*30 - 130*	*08/27/16 13:07*	*09/03/16 08:47*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:11	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:11	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:11	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:11	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:11	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:11	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 11:11	1
PCB-1260	0.084	U *	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 11:11	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 11:11	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 11:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*97*		*30 - 150*	*08/25/16 19:20*	*08/26/16 11:11*	*1*
Tetrachloro-m-xylene	*107*		*30 - 150*	*08/25/16 19:20*	*08/26/16 11:11*	*1*
DCB Decachlorobiphenyl	*112*		*30 - 150*	*08/25/16 19:20*	*08/26/16 11:11*	*1*
DCB Decachlorobiphenyl	*120*		*30 - 150*	*08/25/16 19:20*	*08/26/16 11:11*	*1*

Client Sample ID: PMP-AS-50-082316
Date Collected: 08/23/16 09:10
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-3
Matrix: Water

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.32**		0.12	0.030	mg/L			09/06/16 14:19	1
Sulfate	**7.30**		0.60	0.11	mg/L			09/06/16 14:19	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/29/16 07:59	09/04/16 07:37	2
Arsenic	0.64	U	2.0	0.64	ug/L		08/29/16 07:59	09/08/16 10:59	2
Barium	**10.1**		4.0	1.2	ug/L		08/29/16 07:59	09/08/16 10:59	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/29/16 07:59	09/08/16 10:59	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/29/16 07:59	09/08/16 10:59	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/29/16 07:59	09/08/16 10:59	2
Chromium	1.3	U	4.0	1.3	ug/L		08/29/16 07:59	09/08/16 10:59	2
Copper	**2.7**	**J**	4.0	1.4	ug/L		08/29/16 07:59	09/08/16 10:59	2
Manganese	**4.8**	**J**	8.0	2.5	ug/L		08/29/16 07:59	09/08/16 10:59	2
Nickel	1.4	U	4.0	1.4	ug/L		08/29/16 07:59	09/08/16 10:59	2
Lead	**1.7**		1.2	0.38	ug/L		08/29/16 07:59	09/08/16 10:59	2
Antimony	0.62	U	2.0	0.62	ug/L		08/29/16 07:59	09/08/16 10:59	2
Selenium	0.73	U	10.0	0.73	ug/L		08/29/16 07:59	09/08/16 10:59	2
Vanadium	1.9	U	4.0	1.9	ug/L		08/29/16 07:59	09/08/16 10:59	2
Zinc	**405**		16.0	7.0	ug/L		08/29/16 07:59	09/08/16 10:59	2
Aluminum	**80.0**		40.0	18.2	ug/L		08/29/16 07:59	09/08/16 10:59	2
Sodium	**2510**		200	69.0	ug/L		08/29/16 07:59	09/08/16 10:59	2
Magnesium	**1610**		200	63.6	ug/L		08/29/16 07:59	09/08/16 10:59	2
Potassium	**587**		200	91.4	ug/L		08/29/16 07:59	09/04/16 07:37	2
Calcium	**6650**		200	60.5	ug/L		08/29/16 07:59	09/08/16 10:59	2
Iron	**176**		120	42.4	ug/L		08/29/16 07:59	09/08/16 10:59	2
Thallium	0.26	U	0.80	0.26	ug/L		08/29/16 07:59	09/08/16 10:59	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/02/16 10:43	09/03/16 07:11	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/02/16 10:43	09/03/16 07:11	2
Barium	**9.4**		4.0	1.2	ug/L		09/02/16 10:43	09/03/16 07:11	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 10:43	09/03/16 07:11	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 10:43	09/03/16 07:11	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 10:43	09/03/16 07:11	2
Chromium	1.3	U	4.0	1.3	ug/L		09/02/16 10:43	09/03/16 07:11	2
Copper	**2.2**	**J**	4.0	1.4	ug/L		09/02/16 10:43	09/03/16 07:11	2
Manganese	**4.1**	**J**	8.0	2.5	ug/L		09/02/16 10:43	09/03/16 07:11	2
Nickel	1.4	U	4.0	1.4	ug/L		09/02/16 10:43	09/03/16 07:11	2
Lead	**0.44**	**J**	1.2	0.38	ug/L		09/02/16 10:43	09/03/16 07:11	2
Antimony	0.62	U	2.0	0.62	ug/L		09/02/16 10:43	09/03/16 07:11	2
Selenium	0.73	U	10.0	0.73	ug/L		09/02/16 10:43	09/03/16 07:11	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/02/16 10:43	09/03/16 07:11	2
Zinc	**428**		16.0	7.0	ug/L		09/02/16 10:43	09/03/16 07:11	2
Aluminum	**28.4**	**J**	40.0	18.2	ug/L		09/02/16 10:43	09/03/16 07:11	2
Sodium	**2730**		200	69.0	ug/L		09/02/16 10:43	09/03/16 18:46	2
Magnesium	**1670**		200	63.6	ug/L		09/02/16 10:43	09/03/16 07:11	2
Potassium	**581**		200	91.4	ug/L		09/02/16 10:43	09/03/16 07:11	2
Calcium	**6290**		200	60.5	ug/L		09/02/16 10:43	09/03/16 07:11	2

Client Sample ID: PMP-AS-50-082316

Date Collected: 08/23/16 09:10
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-3
Matrix: Water

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**80.5**	**J**	120	42.4	ug/L		09/02/16 10:43	09/03/16 07:11	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 10:43	09/03/16 07:11	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/29/16 12:16	08/29/16 14:15	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 15:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U F1	0.010	0.0020	mg/L		09/06/16 09:49	09/06/16 15:01	1
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/06/16 17:00	1
Alkalinity	**34.2**		5.0	5.0	mg/L			09/06/16 17:00	1

Client Sample ID: PMP-AS-230-082316

Date Collected: 08/23/16 13:25
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-4
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/30/16 20:38	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/30/16 20:38	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/30/16 20:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*08/30/16 20:38*	*1*
4-Bromofluorobenzene	*85*		*70 - 130*		*08/30/16 20:38*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/26/16 05:51	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/26/16 05:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/26/16 05:51	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/26/16 05:51	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/26/16 05:51	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/26/16 05:51	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/26/16 05:51	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/26/16 05:51	1
1,2-Dichlorobenzene	**0.66**	**J**	1.0	0.22	ug/L			08/26/16 05:51	1
1,2-Dichloroethane	**0.33**	**J**	1.0	0.25	ug/L			08/26/16 05:51	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/26/16 05:51	1
1,3-Dichlorobenzene	**2.7**		1.0	0.33	ug/L			08/26/16 05:51	1
1,4-Dichlorobenzene	**7.7**		1.0	0.33	ug/L			08/26/16 05:51	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/26/16 05:51	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/26/16 05:51	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/26/16 05:51	1
Acetone	1.1	U	5.0	1.1	ug/L			08/26/16 05:51	1
Benzene	**29**		1.0	0.090	ug/L			08/26/16 05:51	1

Client Sample ID: PMP-AS-230-082316

Date Collected: 08/23/16 13:25
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	0.18	U	1.0	0.18	ug/L			08/26/16 05:51	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/26/16 05:51	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/26/16 05:51	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/26/16 05:51	1
Chlorobenzene	**20**		1.0	0.24	ug/L			08/26/16 05:51	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/26/16 05:51	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/26/16 05:51	1
Chloroethane	**17**		1.0	0.37	ug/L			08/26/16 05:51	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/26/16 05:51	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/26/16 05:51	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/26/16 05:51	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/26/16 05:51	1
Cyclohexane	**3.5**		1.0	0.26	ug/L			08/26/16 05:51	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/26/16 05:51	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/26/16 05:51	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/26/16 05:51	1
Isopropylbenzene	**13**		1.0	0.32	ug/L			08/26/16 05:51	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/26/16 05:51	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/26/16 05:51	1
Methylcyclohexane	**0.73**	**J**	1.0	0.22	ug/L			08/26/16 05:51	1
Methylene Chloride	**0.81**	**J**	1.0	0.21	ug/L			08/26/16 05:51	1
Styrene	0.17	U	1.0	0.17	ug/L			08/26/16 05:51	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/26/16 05:51	1
Toluene	**0.28**	**J**	1.0	0.25	ug/L			08/26/16 05:51	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/26/16 05:51	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/26/16 05:51	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/26/16 05:51	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/26/16 05:51	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/26/16 05:51	1
Xylenes, Total	**1.1**	**J**	2.0	0.28	ug/L			08/26/16 05:51	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Indane	*5.7*	*J N*	*ug/L*		*10.48*	*496-11-7*		*08/26/16 05:51*	*1*
Naphthalene	*5.4*	*J N*	*ug/L*		*12.69*	*91-20-3*		*08/26/16 05:51*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*08/26/16 05:51*	*1*
4-Bromofluorobenzene	*109*		*70 - 130*		*08/26/16 05:51*	*1*
Dibromofluoromethane (Surr)	*111*		*70 - 130*		*08/26/16 05:51*	*1*
Toluene-d8 (Surr)	*92*		*70 - 130*		*08/26/16 05:51*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/27/16 13:07	09/02/16 17:11	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/27/16 13:07	09/02/16 17:11	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/27/16 13:07	09/02/16 17:11	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/27/16 13:07	09/02/16 17:11	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/27/16 13:07	09/02/16 17:11	1
Hexachlorobenzene	0.0090	U *	0.020	0.0090	ug/L		08/27/16 13:07	09/02/16 17:11	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/27/16 13:07	09/02/16 17:11	1

Client Sample ID: PMP-AS-230-082316
Date Collected: 08/23/16 13:25
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-4
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/27/16 13:07	09/02/16 17:11	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/27/16 13:07	09/03/16 09:07	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/27/16 13:07	09/03/16 09:07	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 13:07	09/03/16 09:07	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/27/16 13:07	09/03/16 09:07	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/27/16 13:07	09/03/16 09:07	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/27/16 13:07	09/03/16 09:07	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/27/16 13:07	09/03/16 09:07	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/27/16 13:07	09/03/16 09:07	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		08/27/16 13:07	09/03/16 09:07	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/27/16 13:07	09/03/16 09:07	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/27/16 13:07	09/03/16 09:07	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/27/16 13:07	09/03/16 09:07	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/27/16 13:07	09/03/16 09:07	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/27/16 13:07	09/03/16 09:07	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/27/16 13:07	09/03/16 09:07	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/27/16 13:07	09/03/16 09:07	1
Isophorone	0.67	U	10	0.67	ug/L		08/27/16 13:07	09/03/16 09:07	1
Naphthalene	**5.7**	**J**	10	0.80	ug/L		08/27/16 13:07	09/03/16 09:07	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/27/16 13:07	09/03/16 09:07	1
Hexachlorobutadiene	0.76	U *	1.0	0.76	ug/L		08/27/16 13:07	09/03/16 09:07	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/27/16 13:07	09/03/16 09:07	1
Hexachlorocyclopentadiene	0.61	U *	10	0.61	ug/L		08/27/16 13:07	09/03/16 09:07	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/27/16 13:07	09/03/16 09:07	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/27/16 13:07	09/03/16 09:07	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/27/16 13:07	09/03/16 09:07	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/27/16 13:07	09/03/16 09:07	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/27/16 13:07	09/03/16 09:07	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/27/16 13:07	09/03/16 09:07	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/27/16 13:07	09/03/16 09:07	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/27/16 13:07	09/03/16 09:07	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/27/16 13:07	09/03/16 09:07	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 09:07	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/27/16 13:07	09/03/16 09:07	1
Fluorene	0.80	U	10	0.80	ug/L		08/27/16 13:07	09/03/16 09:07	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/27/16 13:07	09/03/16 09:07	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/27/16 13:07	09/03/16 09:07	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 09:07	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/27/16 13:07	09/03/16 09:07	1
Anthracene	0.57	U	10	0.57	ug/L		08/27/16 13:07	09/03/16 09:07	1
Carbazole	0.85	U	10	0.85	ug/L		08/27/16 13:07	09/03/16 09:07	1
Di-n-butyl phthalate	**1.7**	**J B**	10	0.82	ug/L		08/27/16 13:07	09/03/16 09:07	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/27/16 13:07	09/03/16 09:07	1
Pyrene	0.83	U	10	0.83	ug/L		08/27/16 13:07	09/03/16 09:07	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/27/16 13:07	09/03/16 09:07	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/27/16 13:07	09/03/16 09:07	1
Bis(2-ethylhexyl) phthalate	**1.5**	**J B**	2.0	0.72	ug/L		08/27/16 13:07	09/03/16 09:07	1

Client Sample ID: PMP-AS-230-082316
Date Collected: 08/23/16 13:25
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/27/16 13:07	09/03/16 09:07	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/27/16 13:07	09/03/16 09:07	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/27/16 13:07	09/03/16 09:07	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/27/16 13:07	09/03/16 09:07	1
Acetophenone	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 09:07	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/27/16 13:07	09/03/16 09:07	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 13:07	09/03/16 09:07	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/27/16 13:07	09/03/16 09:07	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/27/16 13:07	09/03/16 09:07	1
1,2,4,5-Tetrachlorobenzene	0.43	U *	10	0.43	ug/L		08/27/16 13:07	09/03/16 09:07	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/27/16 13:07	09/03/16 09:07	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 09:07	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/27/16 13:07	09/03/16 09:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*74*		*30 - 130*	*08/27/16 13:07*	*09/03/16 09:07*	*1*
Phenol-d5 (Surr)	*26*		*15 - 110*	*08/27/16 13:07*	*09/03/16 09:07*	*1*
Terphenyl-d14 (Surr)	*96*		*30 - 130*	*08/27/16 13:07*	*09/03/16 09:07*	*1*
2,4,6-Tribromophenol (Surr)	*91*		*15 - 110*	*08/27/16 13:07*	*09/03/16 09:07*	*1*
2-Fluorophenol (Surr)	*43*		*15 - 110*	*08/27/16 13:07*	*09/03/16 09:07*	*1*
2-Fluorobiphenyl	*58*		*30 - 130*	*08/27/16 13:07*	*09/03/16 09:07*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:29	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:29	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:29	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:29	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:29	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:29	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 11:29	1
PCB-1260	0.084	U *	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 11:29	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 11:29	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 11:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*96*		*30 - 150*	*08/25/16 19:20*	*08/26/16 11:29*	*1*
Tetrachloro-m-xylene	*88*		*30 - 150*	*08/25/16 19:20*	*08/26/16 11:29*	*1*
DCB Decachlorobiphenyl	*97*		*30 - 150*	*08/25/16 19:20*	*08/26/16 11:29*	*1*
DCB Decachlorobiphenyl	*87*		*30 - 150*	*08/25/16 19:20*	*08/26/16 11:29*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**0.67**		0.60	0.11	mg/L			09/06/16 14:37	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.6**	**D**	1.20	0.30	mg/L			09/06/16 16:31	10

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Client Sample ID: PMP-AS-230-082316
Date Collected: 08/23/16 13:25
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-4
Matrix: Water

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/29/16 07:59	09/04/16 07:43	2
Arsenic	0.64	U	2.0	0.64	ug/L		08/29/16 07:59	09/08/16 11:22	2
Barium	**553**		4.0	1.2	ug/L		08/29/16 07:59	09/08/16 11:22	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/29/16 07:59	09/08/16 11:22	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/29/16 07:59	09/08/16 11:22	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/29/16 07:59	09/08/16 11:22	2
Chromium	**3.3**	**J**	4.0	1.3	ug/L		08/29/16 07:59	09/08/16 11:22	2
Copper	1.4	U	4.0	1.4	ug/L		08/29/16 07:59	09/08/16 11:22	2
Manganese	**2340**		8.0	2.5	ug/L		08/29/16 07:59	09/08/16 11:22	2
Nickel	1.4	U	4.0	1.4	ug/L		08/29/16 07:59	09/08/16 11:22	2
Lead	**8.2**		1.2	0.38	ug/L		08/29/16 07:59	09/08/16 11:22	2
Antimony	0.62	U	2.0	0.62	ug/L		08/29/16 07:59	09/08/16 11:22	2
Selenium	0.73	U	10.0	0.73	ug/L		08/29/16 07:59	09/08/16 11:22	2
Vanadium	**3.7**	**J**	4.0	1.9	ug/L		08/29/16 07:59	09/08/16 11:22	2
Zinc	**294**		16.0	7.0	ug/L		08/29/16 07:59	09/08/16 11:22	2
Aluminum	**54.7**		40.0	18.2	ug/L		08/29/16 07:59	09/08/16 11:22	2
Sodium	**32400**		200	69.0	ug/L		08/29/16 07:59	09/08/16 11:22	2
Magnesium	**13000**		200	63.6	ug/L		08/29/16 07:59	09/08/16 11:22	2
Potassium	**8030**		200	91.4	ug/L		08/29/16 07:59	09/04/16 07:43	2
Calcium	**109000**		200	60.5	ug/L		08/29/16 07:59	09/08/16 11:22	2
Iron	**139000**		120	42.4	ug/L		08/29/16 07:59	09/08/16 11:22	2
Thallium	0.26	U	0.80	0.26	ug/L		08/29/16 07:59	09/08/16 11:22	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/02/16 10:43	09/03/16 07:23	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/02/16 10:43	09/03/16 07:23	2
Barium	**137**		4.0	1.2	ug/L		09/02/16 10:43	09/03/16 07:23	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 10:43	09/03/16 07:23	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 10:43	09/03/16 07:23	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 10:43	09/03/16 07:23	2
Chromium	1.3	U	4.0	1.3	ug/L		09/02/16 10:43	09/03/16 07:23	2
Copper	1.4	U	4.0	1.4	ug/L		09/02/16 10:43	09/03/16 07:23	2
Manganese	**1860**		8.0	2.5	ug/L		09/02/16 10:43	09/03/16 07:23	2
Nickel	1.4	U	4.0	1.4	ug/L		09/02/16 10:43	09/03/16 07:23	2
Lead	0.38	U	1.2	0.38	ug/L		09/02/16 10:43	09/03/16 07:23	2
Antimony	0.62	U	2.0	0.62	ug/L		09/02/16 10:43	09/03/16 07:23	2
Selenium	0.73	U	10.0	0.73	ug/L		09/02/16 10:43	09/03/16 07:23	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/02/16 10:43	09/03/16 07:23	2
Zinc	**175**		16.0	7.0	ug/L		09/02/16 10:43	09/03/16 07:23	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/02/16 10:43	09/03/16 07:23	2
Sodium	**31500**		200	69.0	ug/L		09/02/16 10:43	09/03/16 18:58	2
Magnesium	**11600**		200	63.6	ug/L		09/02/16 10:43	09/03/16 07:23	2
Potassium	**8260**		200	91.4	ug/L		09/02/16 10:43	09/03/16 07:23	2
Calcium	**97400**		200	60.5	ug/L		09/02/16 10:43	09/03/16 07:23	2
Iron	**22600**		120	42.4	ug/L		09/02/16 10:43	09/03/16 07:23	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 10:43	09/03/16 07:23	2

Client Sample ID: PMP-AS-230-082316

Lab Sample ID: 460-119092-4
Matrix: Water
Date Collected: 08/23/16 13:25
Date Received: 08/24/16 12:40

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/29/16 12:16	08/29/16 14:17	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 15:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:49	09/06/16 15:03	1
Bicarbonate Alkalinity as CaCO3	**388**		5.0	5.0	mg/L			09/06/16 17:00	1
Alkalinity	**388**		5.0	5.0	mg/L			09/06/16 17:00	1

Client Sample ID: RW-11S(236-241)-082316

Lab Sample ID: 460-119092-5
Matrix: Water
Date Collected: 08/23/16 12:15
Date Received: 08/24/16 12:40

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/30/16 02:24	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/30/16 02:24	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/30/16 02:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*08/30/16 02:24*	*1*
4-Bromofluorobenzene	*86*		*70 - 130*		*08/30/16 02:24*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/26/16 06:18	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/26/16 06:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/26/16 06:18	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/26/16 06:18	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/26/16 06:18	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/26/16 06:18	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/26/16 06:18	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/26/16 06:18	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/26/16 06:18	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/26/16 06:18	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/26/16 06:18	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/26/16 06:18	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/26/16 06:18	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/26/16 06:18	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/26/16 06:18	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/26/16 06:18	1
Acetone	**10**		5.0	1.1	ug/L			08/26/16 06:18	1
Benzene	0.090	U	1.0	0.090	ug/L			08/26/16 06:18	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/26/16 06:18	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/26/16 06:18	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/26/16 06:18	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/26/16 06:18	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/26/16 06:18	1

Client Sample ID: RW-11S(236-241)-082316

Date Collected: 08/23/16 12:15
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/26/16 06:18	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/26/16 06:18	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/26/16 06:18	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/26/16 06:18	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/26/16 06:18	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/26/16 06:18	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/26/16 06:18	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/26/16 06:18	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/26/16 06:18	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/26/16 06:18	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/26/16 06:18	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/26/16 06:18	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/26/16 06:18	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/26/16 06:18	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/26/16 06:18	1
Methylene Chloride	**0.63**	**J**	1.0	0.21	ug/L			08/26/16 06:18	1
Styrene	0.17	U	1.0	0.17	ug/L			08/26/16 06:18	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/26/16 06:18	1
Toluene	0.25	U	1.0	0.25	ug/L			08/26/16 06:18	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/26/16 06:18	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/26/16 06:18	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/26/16 06:18	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/26/16 06:18	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/26/16 06:18	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/26/16 06:18	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/26/16 06:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*08/26/16 06:18*	*1*
4-Bromofluorobenzene	*106*		*70 - 130*		*08/26/16 06:18*	*1*
Dibromofluoromethane (Surr)	*113*		*70 - 130*		*08/26/16 06:18*	*1*
Toluene-d8 (Surr)	*93*		*70 - 130*		*08/26/16 06:18*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/27/16 13:07	09/02/16 17:40	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/27/16 13:07	09/02/16 17:40	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/27/16 13:07	09/02/16 17:40	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/27/16 13:07	09/02/16 17:40	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/27/16 13:07	09/02/16 17:40	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/27/16 13:07	09/02/16 17:40	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/27/16 13:07	09/02/16 17:40	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/27/16 13:07	09/02/16 17:40	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/27/16 13:07	09/03/16 09:27	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/27/16 13:07	09/03/16 09:27	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Client Sample ID: RW-11S(236-241)-082316
Date Collected: 08/23/16 12:15
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 13:07	09/03/16 09:27	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/27/16 13:07	09/03/16 09:27	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/27/16 13:07	09/03/16 09:27	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/27/16 13:07	09/03/16 09:27	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/27/16 13:07	09/03/16 09:27	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/27/16 13:07	09/03/16 09:27	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/27/16 13:07	09/03/16 09:27	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/27/16 13:07	09/03/16 09:27	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/27/16 13:07	09/03/16 09:27	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/27/16 13:07	09/03/16 09:27	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/27/16 13:07	09/03/16 09:27	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/27/16 13:07	09/03/16 09:27	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/27/16 13:07	09/03/16 09:27	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/27/16 13:07	09/03/16 09:27	1
Isophorone	0.70	U	10	0.70	ug/L		08/27/16 13:07	09/03/16 09:27	1
Naphthalene	0.83	U	10	0.83	ug/L		08/27/16 13:07	09/03/16 09:27	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/27/16 13:07	09/03/16 09:27	1
Hexachlorobutadiene	0.79	U *	1.0	0.79	ug/L		08/27/16 13:07	09/03/16 09:27	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/27/16 13:07	09/03/16 09:27	1
Hexachlorocyclopentadiene	0.64	U *	10	0.64	ug/L		08/27/16 13:07	09/03/16 09:27	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/27/16 13:07	09/03/16 09:27	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/27/16 13:07	09/03/16 09:27	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 09:27	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/27/16 13:07	09/03/16 09:27	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/27/16 13:07	09/03/16 09:27	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/27/16 13:07	09/03/16 09:27	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/27/16 13:07	09/03/16 09:27	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/27/16 13:07	09/03/16 09:27	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/27/16 13:07	09/03/16 09:27	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 09:27	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 09:27	1
Fluorene	0.83	U	10	0.83	ug/L		08/27/16 13:07	09/03/16 09:27	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/27/16 13:07	09/03/16 09:27	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/27/16 13:07	09/03/16 09:27	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/27/16 13:07	09/03/16 09:27	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/27/16 13:07	09/03/16 09:27	1
Anthracene	0.59	U	10	0.59	ug/L		08/27/16 13:07	09/03/16 09:27	1
Carbazole	0.89	U	10	0.89	ug/L		08/27/16 13:07	09/03/16 09:27	1
Di-n-butyl phthalate	**2.4**	**J B**	10	0.85	ug/L		08/27/16 13:07	09/03/16 09:27	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/27/16 13:07	09/03/16 09:27	1
Pyrene	0.86	U	10	0.86	ug/L		08/27/16 13:07	09/03/16 09:27	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/27/16 13:07	09/03/16 09:27	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/27/16 13:07	09/03/16 09:27	1
Bis(2-ethylhexyl) phthalate	**2.8**	**B**	2.1	0.75	ug/L		08/27/16 13:07	09/03/16 09:27	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/27/16 13:07	09/03/16 09:27	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/27/16 13:07	09/03/16 09:27	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/27/16 13:07	09/03/16 09:27	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/27/16 13:07	09/03/16 09:27	1
Acetophenone	1.1	U	10	1.1	ug/L		08/27/16 13:07	09/03/16 09:27	1

Client Sample ID: RW-11S(236-241)-082316
Date Collected: 08/23/16 12:15
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	0.90	U	10	0.90	ug/L		08/27/16 13:07	09/03/16 09:27	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 13:07	09/03/16 09:27	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/27/16 13:07	09/03/16 09:27	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/27/16 13:07	09/03/16 09:27	1
1,2,4,5-Tetrachlorobenzene	0.45	U *	10	0.45	ug/L		08/27/16 13:07	09/03/16 09:27	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/27/16 13:07	09/03/16 09:27	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/27/16 13:07	09/03/16 09:27	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/27/16 13:07	09/03/16 09:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*82*		*30 - 130*	*08/27/16 13:07*	*09/03/16 09:27*	*1*
Phenol-d5 (Surr)	*23*		*15 - 110*	*08/27/16 13:07*	*09/03/16 09:27*	*1*
Terphenyl-d14 (Surr)	*87*		*30 - 130*	*08/27/16 13:07*	*09/03/16 09:27*	*1*
2,4,6-Tribromophenol (Surr)	*94*		*15 - 110*	*08/27/16 13:07*	*09/03/16 09:27*	*1*
2-Fluorophenol (Surr)	*42*		*15 - 110*	*08/27/16 13:07*	*09/03/16 09:27*	*1*
2-Fluorobiphenyl	*63*		*30 - 130*	*08/27/16 13:07*	*09/03/16 09:27*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:46	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:46	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:46	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:46	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:46	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 11:46	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 11:46	1
PCB-1260	0.084	U *	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 11:46	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 11:46	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 11:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*30 - 150*	*08/25/16 19:20*	*08/26/16 11:46*	*1*
Tetrachloro-m-xylene	*84*		*30 - 150*	*08/25/16 19:20*	*08/26/16 11:46*	*1*
DCB Decachlorobiphenyl	*104*		*30 - 150*	*08/25/16 19:20*	*08/26/16 11:46*	*1*
DCB Decachlorobiphenyl	*106*		*30 - 150*	*08/25/16 19:20*	*08/26/16 11:46*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.00**		0.12	0.030	mg/L			09/06/16 14:56	1
Sulfate	**7.37**		0.60	0.11	mg/L			09/06/16 14:56	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/29/16 07:59	09/04/16 08:01	2
Arsenic	0.64	U	2.0	0.64	ug/L		08/29/16 07:59	09/08/16 11:33	2
Barium	**15.9**		4.0	1.2	ug/L		08/29/16 07:59	09/08/16 11:33	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/29/16 07:59	09/08/16 11:33	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/29/16 07:59	09/08/16 11:33	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/29/16 07:59	09/08/16 11:33	2
Chromium	1.3	U	4.0	1.3	ug/L		08/29/16 07:59	09/08/16 11:33	2
Copper	**5.8**		4.0	1.4	ug/L		08/29/16 07:59	09/08/16 11:33	2

Client Sample ID: RW-11S(236-241)-082316
Date Collected: 08/23/16 12:15
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-5
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**327**		8.0	2.5	ug/L		08/29/16 07:59	09/08/16 11:33	2
Nickel	1.4	U	4.0	1.4	ug/L		08/29/16 07:59	09/08/16 11:33	2
Lead	0.38	U	1.2	0.38	ug/L		08/29/16 07:59	09/08/16 11:33	2
Antimony	0.62	U	2.0	0.62	ug/L		08/29/16 07:59	09/08/16 11:33	2
Selenium	0.73	U	10.0	0.73	ug/L		08/29/16 07:59	09/08/16 11:33	2
Vanadium	1.9	U	4.0	1.9	ug/L		08/29/16 07:59	09/08/16 11:33	2
Zinc	**12.2**	**J**	16.0	7.0	ug/L		08/29/16 07:59	09/08/16 11:33	2
Aluminum	18.2	U	40.0	18.2	ug/L		08/29/16 07:59	09/08/16 11:33	2
Sodium	**2670**		200	69.0	ug/L		08/29/16 07:59	09/08/16 11:33	2
Magnesium	**1860**		200	63.6	ug/L		08/29/16 07:59	09/08/16 11:33	2
Potassium	**1400**		200	91.4	ug/L		08/29/16 07:59	09/04/16 08:01	2
Calcium	**16000**		200	60.5	ug/L		08/29/16 07:59	09/08/16 11:33	2
Iron	**142**		120	42.4	ug/L		08/29/16 07:59	09/08/16 11:33	2
Thallium	0.26	U	0.80	0.26	ug/L		08/29/16 07:59	09/08/16 11:33	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/02/16 10:43	09/03/16 07:46	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/02/16 10:43	09/03/16 07:46	2
Barium	**15.7**		4.0	1.2	ug/L		09/02/16 10:43	09/03/16 07:46	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 10:43	09/03/16 07:46	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 10:43	09/03/16 07:46	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 10:43	09/03/16 07:46	2
Chromium	1.3	U	4.0	1.3	ug/L		09/02/16 10:43	09/03/16 07:46	2
Copper	**1.9**	**J**	4.0	1.4	ug/L		09/02/16 10:43	09/03/16 07:46	2
Manganese	**331**		8.0	2.5	ug/L		09/02/16 10:43	09/03/16 07:46	2
Nickel	1.4	U	4.0	1.4	ug/L		09/02/16 10:43	09/03/16 07:46	2
Lead	0.38	U	1.2	0.38	ug/L		09/02/16 10:43	09/03/16 07:46	2
Antimony	0.62	U	2.0	0.62	ug/L		09/02/16 10:43	09/03/16 07:46	2
Selenium	0.73	U	10.0	0.73	ug/L		09/02/16 10:43	09/03/16 07:46	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/02/16 10:43	09/03/16 07:46	2
Zinc	**11.0**	**J**	16.0	7.0	ug/L		09/02/16 10:43	09/03/16 07:46	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/02/16 10:43	09/03/16 07:46	2
Sodium	**2920**		200	69.0	ug/L		09/02/16 10:43	09/03/16 07:46	2
Magnesium	**2030**		200	63.6	ug/L		09/02/16 10:43	09/03/16 07:46	2
Potassium	**1390**		200	91.4	ug/L		09/02/16 10:43	09/03/16 07:46	2
Calcium	**15200**		200	60.5	ug/L		09/02/16 10:43	09/03/16 07:46	2
Iron	42.4	U	120	42.4	ug/L		09/02/16 10:43	09/03/16 07:46	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 10:43	09/03/16 07:46	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.49**		0.20	0.17	ug/L		08/29/16 12:16	08/29/16 13:51	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 15:59	1

Client Sample ID: RW-11S(236-241)-082316

Lab Sample ID: 460-119092-5

Date Collected: 08/23/16 12:15

Matrix: Water

Date Received: 08/24/16 12:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:49	09/06/16 15:07	1
Bicarbonate Alkalinity as CaCO3	**46.2**		5.0	5.0	mg/L			09/06/16 17:00	1
Alkalinity	**46.2**		5.0	5.0	mg/L			09/06/16 17:00	1

Client Sample ID: RW-3DD(175-180)-082316

Lab Sample ID: 460-119092-6

Date Collected: 08/23/16 13:25

Matrix: Water

Date Received: 08/24/16 12:40

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/30/16 04:54	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/30/16 04:54	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/30/16 04:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*08/30/16 04:54*	*1*
4-Bromofluorobenzene	*84*		*70 - 130*		*08/30/16 04:54*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/26/16 06:45	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/26/16 06:45	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/26/16 06:45	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/26/16 06:45	1
1,1-Dichloroethane	**2.2**		1.0	0.24	ug/L			08/26/16 06:45	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/26/16 06:45	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/26/16 06:45	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/26/16 06:45	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/26/16 06:45	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/26/16 06:45	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/26/16 06:45	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/26/16 06:45	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/26/16 06:45	1
2-Butanone (MEK)	**3.6**	**J**	5.0	2.2	ug/L			08/26/16 06:45	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/26/16 06:45	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/26/16 06:45	1
Acetone	**13**		5.0	1.1	ug/L			08/26/16 06:45	1
Benzene	**0.26**	**J**	1.0	0.090	ug/L			08/26/16 06:45	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/26/16 06:45	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/26/16 06:45	1
Carbon disulfide	**2.5**		1.0	0.22	ug/L			08/26/16 06:45	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/26/16 06:45	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/26/16 06:45	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/26/16 06:45	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/26/16 06:45	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/26/16 06:45	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/26/16 06:45	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/26/16 06:45	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/26/16 06:45	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/26/16 06:45	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Client Sample ID: RW-3DD(175-180)-082316
Date Collected: 08/23/16 13:25
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/26/16 06:45	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/26/16 06:45	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/26/16 06:45	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/26/16 06:45	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/26/16 06:45	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/26/16 06:45	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/26/16 06:45	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/26/16 06:45	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/26/16 06:45	1
Styrene	0.17	U	1.0	0.17	ug/L			08/26/16 06:45	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/26/16 06:45	1
Toluene	0.25	U	1.0	0.25	ug/L			08/26/16 06:45	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/26/16 06:45	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/26/16 06:45	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/26/16 06:45	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/26/16 06:45	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/26/16 06:45	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/26/16 06:45	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/26/16 06:45*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*08/26/16 06:45*	*1*
4-Bromofluorobenzene	*107*		*70 - 130*		*08/26/16 06:45*	*1*
Dibromofluoromethane (Surr)	*113*		*70 - 130*		*08/26/16 06:45*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*08/26/16 06:45*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/28/16 20:28	09/01/16 13:57	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/28/16 20:28	09/01/16 13:57	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/28/16 20:28	09/01/16 13:57	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/28/16 20:28	09/01/16 13:57	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/28/16 20:28	09/01/16 13:57	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/28/16 20:28	09/01/16 13:57	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/28/16 20:28	09/01/16 13:57	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/28/16 20:28	09/01/16 13:57	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/28/16 20:28	09/02/16 14:46	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/28/16 20:28	09/02/16 14:46	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/28/16 20:28	09/02/16 14:46	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/28/16 20:28	09/02/16 14:46	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/28/16 20:28	09/02/16 14:46	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/28/16 20:28	09/02/16 14:46	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/28/16 20:28	09/02/16 14:46	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/28/16 20:28	09/02/16 14:46	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/28/16 20:28	09/02/16 14:46	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Client Sample ID: RW-3DD(175-180)-082316
Date Collected: 08/23/16 13:25
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/28/16 20:28	09/02/16 14:46	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/28/16 20:28	09/02/16 14:46	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/28/16 20:28	09/02/16 14:46	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/28/16 20:28	09/02/16 14:46	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/28/16 20:28	09/02/16 14:46	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/28/16 20:28	09/02/16 14:46	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/28/16 20:28	09/02/16 14:46	1
Isophorone	0.70	U	10	0.70	ug/L		08/28/16 20:28	09/02/16 14:46	1
Naphthalene	0.83	U	10	0.83	ug/L		08/28/16 20:28	09/02/16 14:46	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/28/16 20:28	09/02/16 14:46	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/28/16 20:28	09/02/16 14:46	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/28/16 20:28	09/02/16 14:46	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/28/16 20:28	09/02/16 14:46	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/28/16 20:28	09/02/16 14:46	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/28/16 20:28	09/02/16 14:46	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/28/16 20:28	09/02/16 14:46	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/28/16 20:28	09/02/16 14:46	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/28/16 20:28	09/02/16 14:46	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/28/16 20:28	09/02/16 14:46	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/28/16 20:28	09/02/16 14:46	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/28/16 20:28	09/02/16 14:46	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/28/16 20:28	09/02/16 14:46	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/28/16 20:28	09/02/16 14:46	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/28/16 20:28	09/02/16 14:46	1
Fluorene	0.83	U	10	0.83	ug/L		08/28/16 20:28	09/02/16 14:46	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/28/16 20:28	09/02/16 14:46	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/28/16 20:28	09/02/16 14:46	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/28/16 20:28	09/02/16 14:46	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/28/16 20:28	09/02/16 14:46	1
Anthracene	0.59	U	10	0.59	ug/L		08/28/16 20:28	09/02/16 14:46	1
Carbazole	0.89	U	10	0.89	ug/L		08/28/16 20:28	09/02/16 14:46	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/28/16 20:28	09/02/16 14:46	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/28/16 20:28	09/02/16 14:46	1
Pyrene	0.86	U	10	0.86	ug/L		08/28/16 20:28	09/02/16 14:46	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/28/16 20:28	09/02/16 14:46	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/28/16 20:28	09/02/16 14:46	1
Bis(2-ethylhexyl) phthalate	**0.96**	**J**	2.1	0.75	ug/L		08/28/16 20:28	09/02/16 14:46	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/28/16 20:28	09/02/16 14:46	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/28/16 20:28	09/02/16 14:46	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/28/16 20:28	09/02/16 14:46	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/28/16 20:28	09/02/16 14:46	1
Acetophenone	1.1	U	10	1.1	ug/L		08/28/16 20:28	09/02/16 14:46	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/28/16 20:28	09/02/16 14:46	1
Caprolactam	1.1	U	10	1.1	ug/L		08/28/16 20:28	09/02/16 14:46	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/28/16 20:28	09/02/16 14:46	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/28/16 20:28	09/02/16 14:46	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/28/16 20:28	09/02/16 14:46	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/28/16 20:28	09/02/16 14:46	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/28/16 20:28	09/02/16 14:46	1

Client Sample ID: RW-3DD(175-180)-082316
Date Collected: 08/23/16 13:25
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/28/16 20:28	09/02/16 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*78*		*30 - 130*	*08/28/16 20:28*	*09/02/16 14:46*	*1*
Phenol-d5 (Surr)	*23*		*15 - 110*	*08/28/16 20:28*	*09/02/16 14:46*	*1*
Terphenyl-d14 (Surr)	*93*		*30 - 130*	*08/28/16 20:28*	*09/02/16 14:46*	*1*
2,4,6-Tribromophenol (Surr)	*96*		*15 - 110*	*08/28/16 20:28*	*09/02/16 14:46*	*1*
2-Fluorophenol (Surr)	*42*		*15 - 110*	*08/28/16 20:28*	*09/02/16 14:46*	*1*
2-Fluorobiphenyl	*77*		*30 - 130*	*08/28/16 20:28*	*09/02/16 14:46*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 12:04	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 12:04	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 12:04	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 12:04	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 12:04	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 12:04	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 12:04	1
PCB-1260	0.084	U *	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 12:04	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 12:04	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 12:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*65*		*30 - 150*	*08/25/16 19:20*	*08/26/16 12:04*	*1*
Tetrachloro-m-xylene	*92*		*30 - 150*	*08/25/16 19:20*	*08/26/16 12:04*	*1*
DCB Decachlorobiphenyl	*85*		*30 - 150*	*08/25/16 19:20*	*08/26/16 12:04*	*1*
DCB Decachlorobiphenyl	*106*		*30 - 150*	*08/25/16 19:20*	*08/26/16 12:04*	*1*

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.3**	**D**	1.20	0.30	mg/L			09/06/16 17:47	10
Sulfate	**37.2**	**D**	6.00	1.05	mg/L			09/06/16 17:47	10

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/29/16 07:59	09/04/16 07:26	2
Arsenic	**16.8**		2.0	0.64	ug/L		08/29/16 07:59	09/08/16 10:35	2
Barium	**8.5**		4.0	1.2	ug/L		08/29/16 07:59	09/08/16 10:35	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/29/16 07:59	09/08/16 10:35	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/29/16 07:59	09/08/16 10:35	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/29/16 07:59	09/08/16 10:35	2
Chromium	1.3	U	4.0	1.3	ug/L		08/29/16 07:59	09/08/16 10:35	2
Copper	1.4	U	4.0	1.4	ug/L		08/29/16 07:59	09/08/16 10:35	2
Manganese	2.5	U	8.0	2.5	ug/L		08/29/16 07:59	09/08/16 10:35	2
Nickel	1.4	U	4.0	1.4	ug/L		08/29/16 07:59	09/08/16 10:35	2
Lead	0.38	U	1.2	0.38	ug/L		08/29/16 07:59	09/08/16 10:35	2
Antimony	0.62	U	2.0	0.62	ug/L		08/29/16 07:59	09/08/16 10:35	2
Selenium	0.73	U	10.0	0.73	ug/L		08/29/16 07:59	09/08/16 10:35	2
Vanadium	**4.0**		4.0	1.9	ug/L		08/29/16 07:59	09/08/16 10:35	2
Zinc	7.0	U	16.0	7.0	ug/L		08/29/16 07:59	09/08/16 10:35	2

Client Sample ID: RW-3DD(175-180)-082316
Date Collected: 08/23/16 13:25
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-6
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**102**		40.0	18.2	ug/L		08/29/16 07:59	09/08/16 10:35	2
Sodium	**35800**		200	69.0	ug/L		08/29/16 07:59	09/08/16 10:35	2
Magnesium	**1460**		200	63.6	ug/L		08/29/16 07:59	09/08/16 10:35	2
Potassium	**8480**		200	91.4	ug/L		08/29/16 07:59	09/04/16 07:26	2
Calcium	**26300**		200	60.5	ug/L		08/29/16 07:59	09/08/16 10:35	2
Iron	42.4	U	120	42.4	ug/L		08/29/16 07:59	09/08/16 10:35	2
Thallium	0.26	U	0.80	0.26	ug/L		08/29/16 07:59	09/08/16 10:35	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/02/16 10:43	09/03/16 07:52	2
Arsenic	**16.6**		2.0	0.64	ug/L		09/02/16 10:43	09/03/16 07:52	2
Barium	**4.8**		4.0	1.2	ug/L		09/02/16 10:43	09/03/16 07:52	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 10:43	09/03/16 07:52	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 10:43	09/03/16 07:52	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 10:43	09/03/16 07:52	2
Chromium	1.3	U	4.0	1.3	ug/L		09/02/16 10:43	09/03/16 07:52	2
Copper	1.4	U	4.0	1.4	ug/L		09/02/16 10:43	09/03/16 07:52	2
Manganese	2.5	U	8.0	2.5	ug/L		09/02/16 10:43	09/03/16 07:52	2
Nickel	1.4	U	4.0	1.4	ug/L		09/02/16 10:43	09/03/16 07:52	2
Lead	0.38	U	1.2	0.38	ug/L		09/02/16 10:43	09/03/16 07:52	2
Antimony	0.62	U	2.0	0.62	ug/L		09/02/16 10:43	09/03/16 07:52	2
Selenium	0.73	U	10.0	0.73	ug/L		09/02/16 10:43	09/03/16 07:52	2
Vanadium	**3.4**	**J**	4.0	1.9	ug/L		09/02/16 10:43	09/03/16 07:52	2
Zinc	7.0	U	16.0	7.0	ug/L		09/02/16 10:43	09/03/16 07:52	2
Aluminum	**78.5**		40.0	18.2	ug/L		09/02/16 10:43	09/03/16 07:52	2
Sodium	**31800**		200	69.0	ug/L		09/02/16 10:43	09/03/16 07:52	2
Magnesium	**1740**		200	63.6	ug/L		09/02/16 10:43	09/03/16 07:52	2
Potassium	**8600**		200	91.4	ug/L		09/02/16 10:43	09/03/16 07:52	2
Calcium	**11400**		200	60.5	ug/L		09/02/16 10:43	09/03/16 07:52	2
Iron	42.4	U	120	42.4	ug/L		09/02/16 10:43	09/03/16 07:52	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 10:43	09/03/16 07:52	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/29/16 12:16	08/29/16 14:19	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 16:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:53	09/06/16 15:08	1
Bicarbonate Alkalinity as CaCO3	**8.0**		5.0	5.0	mg/L			09/06/16 17:00	1
Alkalinity	**64.3**		5.0	5.0	mg/L			09/06/16 17:00	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Client Sample ID: RW-3DS(155-160)-082316
Date Collected: 08/23/16 15:00
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-7
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/30/16 05:19	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/30/16 05:19	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/30/16 05:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/30/16 05:19*	*1*
4-Bromofluorobenzene	*88*		*70 - 130*		*08/30/16 05:19*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/26/16 07:11	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/26/16 07:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/26/16 07:11	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/26/16 07:11	1
1,1-Dichloroethane	**2.2**		1.0	0.24	ug/L			08/26/16 07:11	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/26/16 07:11	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/26/16 07:11	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/26/16 07:11	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/26/16 07:11	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/26/16 07:11	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/26/16 07:11	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/26/16 07:11	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/26/16 07:11	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/26/16 07:11	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/26/16 07:11	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/26/16 07:11	1
Acetone	**11**		5.0	1.1	ug/L			08/26/16 07:11	1
Benzene	**0.13**	**J**	1.0	0.090	ug/L			08/26/16 07:11	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/26/16 07:11	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/26/16 07:11	1
Carbon disulfide	**6.5**		1.0	0.22	ug/L			08/26/16 07:11	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/26/16 07:11	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/26/16 07:11	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/26/16 07:11	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/26/16 07:11	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/26/16 07:11	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/26/16 07:11	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/26/16 07:11	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/26/16 07:11	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/26/16 07:11	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/26/16 07:11	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/26/16 07:11	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/26/16 07:11	1
Ethylbenzene	**0.31**	**J**	1.0	0.30	ug/L			08/26/16 07:11	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/26/16 07:11	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/26/16 07:11	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/26/16 07:11	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/26/16 07:11	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/26/16 07:11	1
Styrene	0.17	U	1.0	0.17	ug/L			08/26/16 07:11	1

Client Sample ID: RW-3DS(155-160)-082316
Date Collected: 08/23/16 15:00
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/26/16 07:11	1
Toluene	**0.67**	**J**	1.0	0.25	ug/L			08/26/16 07:11	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/26/16 07:11	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/26/16 07:11	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/26/16 07:11	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/26/16 07:11	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/26/16 07:11	1
Xylenes, Total	**0.58**	**J**	2.0	0.28	ug/L			08/26/16 07:11	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/26/16 07:11*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*		*08/26/16 07:11*	*1*
4-Bromofluorobenzene	*116*		*70 - 130*		*08/26/16 07:11*	*1*
Dibromofluoromethane (Surr)	*123*		*70 - 130*		*08/26/16 07:11*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*08/26/16 07:11*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/27/16 13:07	09/02/16 18:09	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		08/27/16 13:07	09/02/16 18:09	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		08/27/16 13:07	09/02/16 18:09	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/27/16 13:07	09/02/16 18:09	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		08/27/16 13:07	09/02/16 18:09	1
Hexachlorobenzene	0.0094	U *	0.021	0.0094	ug/L		08/27/16 13:07	09/02/16 18:09	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/27/16 13:07	09/02/16 18:09	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/27/16 13:07	09/02/16 18:09	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/27/16 13:07	09/03/16 10:06	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/27/16 13:07	09/03/16 10:06	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		08/27/16 13:07	09/03/16 10:06	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/27/16 13:07	09/03/16 10:06	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/27/16 13:07	09/03/16 10:06	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/27/16 13:07	09/03/16 10:06	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/27/16 13:07	09/03/16 10:06	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/27/16 13:07	09/03/16 10:06	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/27/16 13:07	09/03/16 10:06	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/27/16 13:07	09/03/16 10:06	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/27/16 13:07	09/03/16 10:06	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/27/16 13:07	09/03/16 10:06	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/27/16 13:07	09/03/16 10:06	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/27/16 13:07	09/03/16 10:06	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/27/16 13:07	09/03/16 10:06	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/27/16 13:07	09/03/16 10:06	1
Isophorone	0.70	U	10	0.70	ug/L		08/27/16 13:07	09/03/16 10:06	1
Naphthalene	0.83	U	10	0.83	ug/L		08/27/16 13:07	09/03/16 10:06	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/27/16 13:07	09/03/16 10:06	1

Client Sample ID: RW-3DS(155-160)-082316
Date Collected: 08/23/16 15:00
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.79	U *	1.0	0.79	ug/L		08/27/16 13:07	09/03/16 10:06	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/27/16 13:07	09/03/16 10:06	1
Hexachlorocyclopentadiene	0.64	U *	10	0.64	ug/L		08/27/16 13:07	09/03/16 10:06	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/27/16 13:07	09/03/16 10:06	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/27/16 13:07	09/03/16 10:06	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 10:06	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/27/16 13:07	09/03/16 10:06	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/27/16 13:07	09/03/16 10:06	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/27/16 13:07	09/03/16 10:06	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/27/16 13:07	09/03/16 10:06	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/27/16 13:07	09/03/16 10:06	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/27/16 13:07	09/03/16 10:06	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 10:06	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 10:06	1
Fluorene	0.83	U	10	0.83	ug/L		08/27/16 13:07	09/03/16 10:06	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/27/16 13:07	09/03/16 10:06	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/27/16 13:07	09/03/16 10:06	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/27/16 13:07	09/03/16 10:06	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/27/16 13:07	09/03/16 10:06	1
Anthracene	0.59	U	10	0.59	ug/L		08/27/16 13:07	09/03/16 10:06	1
Carbazole	0.89	U	10	0.89	ug/L		08/27/16 13:07	09/03/16 10:06	1
Di-n-butyl phthalate	**1.7**	**J B**	10	0.85	ug/L		08/27/16 13:07	09/03/16 10:06	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/27/16 13:07	09/03/16 10:06	1
Pyrene	0.86	U	10	0.86	ug/L		08/27/16 13:07	09/03/16 10:06	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/27/16 13:07	09/03/16 10:06	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/27/16 13:07	09/03/16 10:06	1
Bis(2-ethylhexyl) phthalate	**1.8**	**J B**	2.1	0.75	ug/L		08/27/16 13:07	09/03/16 10:06	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/27/16 13:07	09/03/16 10:06	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/27/16 13:07	09/03/16 10:06	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/27/16 13:07	09/03/16 10:06	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/27/16 13:07	09/03/16 10:06	1
Acetophenone	1.1	U	10	1.1	ug/L		08/27/16 13:07	09/03/16 10:06	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/27/16 13:07	09/03/16 10:06	1
Caprolactam	1.1	U *	10	1.1	ug/L		08/27/16 13:07	09/03/16 10:06	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/27/16 13:07	09/03/16 10:06	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/27/16 13:07	09/03/16 10:06	1
1,2,4,5-Tetrachlorobenzene	0.45	U *	10	0.45	ug/L		08/27/16 13:07	09/03/16 10:06	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/27/16 13:07	09/03/16 10:06	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/27/16 13:07	09/03/16 10:06	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/27/16 13:07	09/03/16 10:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*78*		*30 - 130*	*08/27/16 13:07*	*09/03/16 10:06*	*1*
Phenol-d5 (Surr)	*29*		*15 - 110*	*08/27/16 13:07*	*09/03/16 10:06*	*1*
Terphenyl-d14 (Surr)	*95*		*30 - 130*	*08/27/16 13:07*	*09/03/16 10:06*	*1*
2,4,6-Tribromophenol (Surr)	*100*		*15 - 110*	*08/27/16 13:07*	*09/03/16 10:06*	*1*
2-Fluorophenol (Surr)	*42*		*15 - 110*	*08/27/16 13:07*	*09/03/16 10:06*	*1*
2-Fluorobiphenyl	*70*		*30 - 130*	*08/27/16 13:07*	*09/03/16 10:06*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Client Sample ID: RW-3DS(155-160)-082316
Date Collected: 08/23/16 15:00
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-7
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 12:22	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 12:22	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 12:22	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 12:22	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 12:22	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 12:22	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 12:22	1
PCB-1260	0.084	U *	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 12:22	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 12:22	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 12:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*62*	*p*	*30 - 150*	*08/25/16 19:20*	*08/26/16 12:22*	*1*
Tetrachloro-m-xylene	*101*		*30 - 150*	*08/25/16 19:20*	*08/26/16 12:22*	*1*
DCB Decachlorobiphenyl	*86*		*30 - 150*	*08/25/16 19:20*	*08/26/16 12:22*	*1*
DCB Decachlorobiphenyl	*119*		*30 - 150*	*08/25/16 19:20*	*08/26/16 12:22*	*1*

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**53.1**	**D**	12.0	3.00	mg/L			09/06/16 18:06	100
Sulfate	**393**	**D**	60.0	10.5	mg/L			09/06/16 18:06	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/29/16 07:59	09/04/16 08:13	2
Arsenic	**14.7**		2.0	0.64	ug/L		08/29/16 07:59	09/08/16 11:39	2
Barium	**11.4**		4.0	1.2	ug/L		08/29/16 07:59	09/08/16 11:39	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/29/16 07:59	09/08/16 11:39	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/29/16 07:59	09/08/16 11:39	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/29/16 07:59	09/08/16 11:39	2
Chromium	**1.4**	**J**	4.0	1.3	ug/L		08/29/16 07:59	09/08/16 11:39	2
Copper	1.4	U	4.0	1.4	ug/L		08/29/16 07:59	09/08/16 11:39	2
Manganese	2.5	U	8.0	2.5	ug/L		08/29/16 07:59	09/08/16 11:39	2
Nickel	**2.6**	**J**	4.0	1.4	ug/L		08/29/16 07:59	09/08/16 11:39	2
Lead	0.38	U	1.2	0.38	ug/L		08/29/16 07:59	09/08/16 11:39	2
Antimony	**0.72**	**J**	2.0	0.62	ug/L		08/29/16 07:59	09/08/16 11:39	2
Selenium	**2.1**	**J**	10.0	0.73	ug/L		08/29/16 07:59	09/08/16 11:39	2
Vanadium	**5.5**		4.0	1.9	ug/L		08/29/16 07:59	09/08/16 11:39	2
Zinc	7.0	U	16.0	7.0	ug/L		08/29/16 07:59	09/08/16 11:39	2
Aluminum	**40.5**		40.0	18.2	ug/L		08/29/16 07:59	09/08/16 11:39	2
Sodium	**189000**		200	69.0	ug/L		08/29/16 07:59	09/08/16 11:39	2
Magnesium	63.6	U	200	63.6	ug/L		08/29/16 07:59	09/08/16 11:39	2
Potassium	**32800**		200	91.4	ug/L		08/29/16 07:59	09/04/16 08:13	2
Calcium	**42500**		200	60.5	ug/L		08/29/16 07:59	09/08/16 11:39	2
Iron	42.4	U	120	42.4	ug/L		08/29/16 07:59	09/08/16 11:39	2
Thallium	0.26	U	0.80	0.26	ug/L		08/29/16 07:59	09/08/16 11:39	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/02/16 10:43	09/03/16 08:03	2

Client Sample ID: RW-3DS(155-160)-082316

Lab Sample ID: 460-119092-7

Date Collected: 08/23/16 15:00

Matrix: Water

Date Received: 08/24/16 12:40

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**13.5**		2.0	0.64	ug/L		09/02/16 10:43	09/03/16 08:03	2
Barium	**13.4**		4.0	1.2	ug/L		09/02/16 10:43	09/03/16 08:03	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 10:43	09/03/16 08:03	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 10:43	09/03/16 08:03	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 10:43	09/03/16 08:03	2
Chromium	1.3	U	4.0	1.3	ug/L		09/02/16 10:43	09/03/16 08:03	2
Copper	1.4	U	4.0	1.4	ug/L		09/02/16 10:43	09/03/16 08:03	2
Manganese	2.5	U	8.0	2.5	ug/L		09/02/16 10:43	09/03/16 08:03	2
Nickel	**2.5**	**J**	4.0	1.4	ug/L		09/02/16 10:43	09/03/16 08:03	2
Lead	0.38	U	1.2	0.38	ug/L		09/02/16 10:43	09/03/16 08:03	2
Antimony	0.62	U	2.0	0.62	ug/L		09/02/16 10:43	09/03/16 08:03	2
Selenium	**2.7**	**J**	10.0	0.73	ug/L		09/02/16 10:43	09/03/16 08:03	2
Vanadium	**3.7**	**J**	4.0	1.9	ug/L		09/02/16 10:43	09/03/16 08:03	2
Zinc	7.0	U	16.0	7.0	ug/L		09/02/16 10:43	09/03/16 08:03	2
Aluminum	**54.4**		40.0	18.2	ug/L		09/02/16 10:43	09/03/16 08:03	2
Sodium	**166000**		200	69.0	ug/L		09/02/16 10:43	09/03/16 08:03	2
Magnesium	63.6	U	200	63.6	ug/L		09/02/16 10:43	09/03/16 08:03	2
Potassium	**39000**		200	91.4	ug/L		09/02/16 10:43	09/03/16 08:03	2
Calcium	**42500**		200	60.5	ug/L		09/02/16 10:43	09/03/16 08:03	2
Iron	42.4	U	120	42.4	ug/L		09/02/16 10:43	09/03/16 08:03	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 10:43	09/03/16 08:03	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/29/16 12:16	08/29/16 14:21	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 16:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:53	09/06/16 15:09	1
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/06/16 17:00	1
Alkalinity	**101**		5.0	5.0	mg/L			09/06/16 17:00	1

Client Sample ID: TB-06-082316

Lab Sample ID: 460-119092-8

Date Collected: 08/23/16 00:00

Matrix: Water

Date Received: 08/24/16 12:40

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/29/16 23:29	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/29/16 23:29	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/29/16 23:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/29/16 23:29*	*1*
4-Bromofluorobenzene	*84*		*70 - 130*		*08/29/16 23:29*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Client Sample ID: TB-06-082316
Date Collected: 08/23/16 00:00
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/26/16 04:03	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/26/16 04:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/26/16 04:03	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/26/16 04:03	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/26/16 04:03	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/26/16 04:03	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/26/16 04:03	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/26/16 04:03	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/26/16 04:03	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/26/16 04:03	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/26/16 04:03	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/26/16 04:03	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/26/16 04:03	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/26/16 04:03	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/26/16 04:03	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/26/16 04:03	1
Acetone	**7.9**		5.0	1.1	ug/L			08/26/16 04:03	1
Benzene	0.090	U	1.0	0.090	ug/L			08/26/16 04:03	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/26/16 04:03	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/26/16 04:03	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/26/16 04:03	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/26/16 04:03	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/26/16 04:03	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/26/16 04:03	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/26/16 04:03	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/26/16 04:03	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/26/16 04:03	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/26/16 04:03	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/26/16 04:03	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/26/16 04:03	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/26/16 04:03	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/26/16 04:03	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/26/16 04:03	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/26/16 04:03	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/26/16 04:03	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/26/16 04:03	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/26/16 04:03	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/26/16 04:03	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/26/16 04:03	1
Styrene	0.17	U	1.0	0.17	ug/L			08/26/16 04:03	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/26/16 04:03	1
Toluene	0.25	U	1.0	0.25	ug/L			08/26/16 04:03	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/26/16 04:03	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/26/16 04:03	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/26/16 04:03	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/26/16 04:03	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/26/16 04:03	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/26/16 04:03	1

Client Sample ID: TB-06-082316
Date Collected: 08/23/16 00:00
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-8
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/26/16 04:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 130		08/26/16 04:03	1
4-Bromofluorobenzene	103		70 - 130		08/26/16 04:03	1
Dibromofluoromethane (Surr)	111		70 - 130		08/26/16 04:03	1
Toluene-d8 (Surr)	91		70 - 130		08/26/16 04:03	1

Surrogate Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)	DBFM (70-130)	TOL (70-130)
460-119092-1	RW-11D(262-267)-082316	99	103	109	91
460-119092-2	PMP-AS-180-082316	103	107	115	92
460-119092-3	PMP-AS-50-082316	104	107	114	95
460-119092-4	PMP-AS-230-082316	102	109	111	92
460-119092-5	RW-11S(236-241)-082316	102	106	113	93
460-119092-6	RW-3DD(175-180)-082316	102	107	113	95
460-119092-7	RW-3DS(155-160)-082316	111	116	123	103
460-119092-8	TB-06-082316	98	103	111	91
LCS 460-386844/3	Lab Control Sample	101	110	111	94
LCSD 460-386844/4	Lab Control Sample Dup	99	110	112	94
MB 460-386844/7	Method Blank	102	105	111	94

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)
460-119092-1	RW-11D(262-267)-082316	104	95
460-119092-2	PMP-AS-180-082316	98	88
460-119092-3	PMP-AS-50-082316	104	85
460-119092-4	PMP-AS-230-082316	98	85
460-119092-5	RW-11S(236-241)-082316	105	86
460-119092-6	RW-3DD(175-180)-082316	105	84
460-119092-7	RW-3DS(155-160)-082316	106	88
460-119092-8	TB-06-082316	104	84
460-119291-B-4 MS	Matrix Spike	96	85
460-119291-B-4 MSD	Matrix Spike Duplicate	97	88
LCS 460-387501/3	Lab Control Sample	105	93
LCS 460-387597/4	Lab Control Sample	108	96
LCSD 460-387501/4	Lab Control Sample Dup	108	93
MB 460-387501/7	Method Blank	104	88
MB 460-387597/8	Method Blank	111	92

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene

Surrogate Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPH	TBP	2FP	FBP
Lab Sample ID	Client Sample ID	(30-130)	(15-110)	(30-130)	(15-110)	(15-110)	(30-130)
460-119092-1	RW-11D(262-267)-082316	91	27	101	105	54	69
460-119092-2	PMP-AS-180-082316	77	23	90	103	48	67
460-119092-3	PMP-AS-50-082316	85	20	91	101	37	73
460-119092-4	PMP-AS-230-082316	74	26	96	91	43	58
460-119092-5	RW-11S(236-241)-082316	82	23	87	94	42	63
460-119092-6	RW-3DD(175-180)-082316	78	23	93	96	42	77
460-119092-7	RW-3DS(155-160)-082316	78	29	95	100	42	70
460-119215-E-1-A MS	Matrix Spike	78	26	83	96	32	83
460-119215-E-1-B MSD	Matrix Spike Duplicate	83	28	83	97	44	88
LCS 460-387196/2-A	Lab Control Sample	84	28	90	92	41	68
LCS 460-387196/4-A	Lab Control Sample	96	19	104	105	42	77
LCS 460-387311/2-A	Lab Control Sample	83	26	84	94	35	82
LCS 460-387311/3-A	Lab Control Sample	77	20	94	91	32	73
LCSD 460-387196/3-A	Lab Control Sample Dup	84	26	89	98	35	71
LCSD 460-387196/5-A	Lab Control Sample Dup	88	20	96	101	48	69
MB 460-387196/1-A	Method Blank	86	24	93	99	36	66
MB 460-387311/1-A	Method Blank	83	21	96	97	40	76

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)
460-119092-1	RW-11D(262-267)-082316	47 p	82	78 p	121
460-119092-2	PMP-AS-180-082316	79	80	96	95
460-119092-3	PMP-AS-50-082316	97	107	112	120
460-119092-4	PMP-AS-230-082316	96	88	97	87
460-119092-5	RW-11S(236-241)-082316	79	84	104	106
460-119092-6	RW-3DD(175-180)-082316	65	92	85	106
460-119092-7	RW-3DS(155-160)-082316	62 p	101	86	119
LCS 460-386833/2-A	Lab Control Sample	59	65	141	141
LCSD 460-386833/3-A	Lab Control Sample Dup	80	79	132	121
MB 460-386833/1-A	Method Blank	68	74	118	121

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-386844/7
Matrix: Water
Analysis Batch: 386844

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/25/16 22:40	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/25/16 22:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/25/16 22:40	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/25/16 22:40	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/25/16 22:40	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/25/16 22:40	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/25/16 22:40	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/25/16 22:40	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/25/16 22:40	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/25/16 22:40	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/25/16 22:40	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 22:40	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/25/16 22:40	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/25/16 22:40	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/25/16 22:40	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/25/16 22:40	1
Acetone	1.1	U	5.0	1.1	ug/L			08/25/16 22:40	1
Benzene	0.090	U	1.0	0.090	ug/L			08/25/16 22:40	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/25/16 22:40	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/25/16 22:40	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/25/16 22:40	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/25/16 22:40	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/25/16 22:40	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/25/16 22:40	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/25/16 22:40	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/25/16 22:40	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/25/16 22:40	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/25/16 22:40	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/25/16 22:40	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/25/16 22:40	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/25/16 22:40	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/25/16 22:40	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/25/16 22:40	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/25/16 22:40	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/25/16 22:40	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/25/16 22:40	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/25/16 22:40	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/25/16 22:40	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/25/16 22:40	1
Styrene	0.17	U	1.0	0.17	ug/L			08/25/16 22:40	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/25/16 22:40	1
Toluene	0.25	U	1.0	0.25	ug/L			08/25/16 22:40	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/25/16 22:40	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/25/16 22:40	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/25/16 22:40	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/25/16 22:40	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/25/16 22:40	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/25/16 22:40	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/25/16 22:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		08/25/16 22:40	1
4-Bromofluorobenzene	105		70 - 130		08/25/16 22:40	1
Dibromofluoromethane (Surr)	111		70 - 130		08/25/16 22:40	1
Toluene-d8 (Surr)	94		70 - 130		08/25/16 22:40	1

Lab Sample ID: LCS 460-386844/3
Matrix: Water
Analysis Batch: 386844

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	22.4		ug/L		112	70 - 130
1,1,2,2-Tetrachloroethane	20.0	16.7		ug/L		84	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.6		ug/L		108	70 - 130
1,1,2-Trichloroethane	20.0	18.3		ug/L		92	70 - 130
1,1-Dichloroethane	20.0	21.6		ug/L		108	70 - 130
1,1-Dichloroethene	20.0	22.4		ug/L		112	70 - 130
1,2,3-Trichlorobenzene	20.0	19.8		ug/L		99	70 - 130
1,2,4-Trichlorobenzene	20.0	19.3		ug/L		97	70 - 130
1,2-Dichlorobenzene	20.0	18.8		ug/L		94	70 - 130
1,2-Dichloroethane	20.0	21.1		ug/L		106	70 - 130
1,2-Dichloropropane	20.0	20.7		ug/L		103	70 - 130
1,3-Dichlorobenzene	20.0	18.7		ug/L		94	70 - 130
1,4-Dichlorobenzene	20.0	18.9		ug/L		94	70 - 130
2-Butanone (MEK)	100	103		ug/L		103	40 - 160
2-Hexanone	100	94.8		ug/L		95	40 - 160
4-Methyl-2-pentanone (MIBK)	100	101		ug/L		101	40 - 160
Acetone	100	94.3		ug/L		94	40 - 160
Benzene	20.0	19.1		ug/L		95	70 - 130
Bromoform	20.0	17.2		ug/L		86	70 - 130
Bromomethane	20.0	22.7		ug/L		113	40 - 160
Carbon disulfide	20.0	21.9		ug/L		109	40 - 160
Carbon tetrachloride	20.0	23.3		ug/L		117	70 - 130
Chlorobenzene	20.0	19.4		ug/L		97	70 - 130
Chlorobromomethane	20.0	22.8		ug/L		114	70 - 130
Chlorodibromomethane	20.0	18.4		ug/L		92	70 - 130
Chloroethane	20.0	21.7		ug/L		109	40 - 160
Chloroform	20.0	22.3		ug/L		112	70 - 130
Chloromethane	20.0	18.6		ug/L		93	40 - 160
cis-1,2-Dichloroethene	20.0	21.5		ug/L		108	70 - 130
cis-1,3-Dichloropropene	20.0	16.9		ug/L		85	70 - 130
Cyclohexane	20.0	22.8		ug/L		114	70 - 130
Dichlorobromomethane	20.0	21.2		ug/L		106	70 - 130
Dichlorodifluoromethane	20.0	20.7		ug/L		103	40 - 160
Ethylbenzene	20.0	19.2		ug/L		96	70 - 130
Isopropylbenzene	20.0	18.8		ug/L		94	70 - 130
Methyl acetate	100	99.4		ug/L		99	70 - 130
Methyl tert-butyl ether	20.0	20.1		ug/L		100	70 - 130
Methylcyclohexane	20.0	19.5		ug/L		97	70 - 130
Methylene Chloride	20.0	22.7		ug/L		113	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-386844/3
Matrix: Water
Analysis Batch: 386844

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Styrene			20.0	17.4		ug/L		87	70 - 130		
Tetrachloroethene			20.0	20.7		ug/L		103	70 - 130		
Toluene			20.0	18.7		ug/L		94	70 - 130		
trans-1,2-Dichloroethene			20.0	22.1		ug/L		110	70 - 130		
trans-1,3-Dichloropropene			20.0	17.1		ug/L		85	70 - 130		
Trichloroethene			20.0	22.3		ug/L		111	70 - 130		
Trichlorofluoromethane			20.0	26.0		ug/L		130	40 - 160		
Vinyl chloride			20.0	20.0		ug/L		100	70 - 130		
Xylenes, Total			40.0	35.7		ug/L		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*
4-Bromofluorobenzene	*110*		*70 - 130*
Dibromofluoromethane (Surr)	*111*		*70 - 130*
Toluene-d8 (Surr)	*94*		*70 - 130*

Lab Sample ID: LCSD 460-386844/4
Matrix: Water
Analysis Batch: 386844

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane			20.0	23.0		ug/L		115	70 - 130	3	20
1,1,2,2-Tetrachloroethane			20.0	17.8		ug/L		89	70 - 130	6	20
1,1,2-Trichloro-1,2,2-trifluoroethane			20.0	22.1		ug/L		110	70 - 130	2	20
1,1,2-Trichloroethane			20.0	18.8		ug/L		94	70 - 130	3	20
1,1-Dichloroethane			20.0	22.3		ug/L		111	70 - 130	3	20
1,1-Dichloroethene			20.0	23.3		ug/L		116	70 - 130	4	20
1,2,3-Trichlorobenzene			20.0	20.3		ug/L		102	70 - 130	3	20
1,2,4-Trichlorobenzene			20.0	20.3		ug/L		102	70 - 130	5	20
1,2-Dichlorobenzene			20.0	19.6		ug/L		98	70 - 130	4	20
1,2-Dichloroethane			20.0	21.4		ug/L		107	70 - 130	1	20
1,2-Dichloropropane			20.0	21.0		ug/L		105	70 - 130	1	20
1,3-Dichlorobenzene			20.0	19.3		ug/L		97	70 - 130	3	20
1,4-Dichlorobenzene			20.0	19.5		ug/L		98	70 - 130	3	20
2-Butanone (MEK)			100	106		ug/L		106	40 - 160	3	20
2-Hexanone			100	96.5		ug/L		97	40 - 160	2	20
4-Methyl-2-pentanone (MIBK)			100	102		ug/L		102	40 - 160	1	20
Acetone			100	93.6		ug/L		94	40 - 160	1	20
Benzene			20.0	19.7		ug/L		99	70 - 130	3	20
Bromoform			20.0	17.4		ug/L		87	70 - 130	1	20
Bromomethane			20.0	22.0		ug/L		110	40 - 160	3	20
Carbon disulfide			20.0	22.6		ug/L		113	40 - 160	3	20
Carbon tetrachloride			20.0	23.9		ug/L		120	70 - 130	2	20
Chlorobenzene			20.0	19.9		ug/L		99	70 - 130	2	20
Chlorobromomethane			20.0	22.8		ug/L		114	70 - 130	0	20
Chlorodibromomethane			20.0	18.9		ug/L		94	70 - 130	2	20
Chloroethane			20.0	22.3		ug/L		111	40 - 160	2	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-386844/4
Matrix: Water
Analysis Batch: 386844

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroform			20.0	22.6		ug/L		113	70 - 130	1	20
Chloromethane			20.0	17.4		ug/L		87	40 - 160	7	20
cis-1,2-Dichloroethene			20.0	22.1		ug/L		110	70 - 130	3	20
cis-1,3-Dichloropropene			20.0	17.5		ug/L		88	70 - 130	4	20
Cyclohexane			20.0	23.1		ug/L		116	70 - 130	2	20
Dichlorobromomethane			20.0	21.9		ug/L		109	70 - 130	3	20
Dichlorodifluoromethane			20.0	19.5		ug/L		97	40 - 160	6	20
Ethylbenzene			20.0	19.6		ug/L		98	70 - 130	2	20
Isopropylbenzene			20.0	19.3		ug/L		97	70 - 130	3	20
Methyl acetate			100	99.1		ug/L		99	70 - 130	0	20
Methyl tert-butyl ether			20.0	20.7		ug/L		104	70 - 130	3	20
Methylcyclohexane			20.0	20.1		ug/L		101	70 - 130	3	20
Methylene Chloride			20.0	22.2		ug/L		111	70 - 130	2	20
Styrene			20.0	17.7		ug/L		88	70 - 130	1	20
Tetrachloroethene			20.0	21.6		ug/L		108	70 - 130	5	20
Toluene			20.0	19.3		ug/L		97	70 - 130	3	20
trans-1,2-Dichloroethene			20.0	22.6		ug/L		113	70 - 130	2	20
trans-1,3-Dichloropropene			20.0	17.7		ug/L		89	70 - 130	4	20
Trichloroethene			20.0	22.5		ug/L		113	70 - 130	1	20
Trichlorofluoromethane			20.0	24.7		ug/L		124	40 - 160	5	20
Vinyl chloride			20.0	19.1		ug/L		95	70 - 130	4	20
Xylenes, Total			40.0	37.1		ug/L		93	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*
4-Bromofluorobenzene	*110*		*70 - 130*
Dibromofluoromethane (Surr)	*112*		*70 - 130*
Toluene-d8 (Surr)	*94*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-387501/7
Matrix: Water
Analysis Batch: 387501

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/29/16 23:04	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/29/16 23:04	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/29/16 23:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/29/16 23:04*	*1*
4-Bromofluorobenzene	*88*		*70 - 130*		*08/29/16 23:04*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-387501/3
Matrix: Water
Analysis Batch: 387501

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.500	0.289		ug/L		58	40 - 160
Ethylene Dibromide	0.500	0.439		ug/L		88	70 - 130
1,2,3-Trichloropropane	0.500	0.414		ug/L		83	40 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene	*93*		*70 - 130*

Lab Sample ID: LCSD 460-387501/4
Matrix: Water
Analysis Batch: 387501

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.500	0.283		ug/L		57	40 - 160	2	20
Ethylene Dibromide	0.500	0.453		ug/L		91	70 - 130	3	20
1,2,3-Trichloropropane	0.500	0.413		ug/L		83	40 - 160	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*
4-Bromofluorobenzene	*93*		*70 - 130*

Lab Sample ID: MB 460-387597/8
Matrix: Water
Analysis Batch: 387597

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/30/16 12:13	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/30/16 12:13	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/30/16 12:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*		*08/30/16 12:13*	*1*
4-Bromofluorobenzene	*92*		*70 - 130*		*08/30/16 12:13*	*1*

Lab Sample ID: LCS 460-387597/4
Matrix: Water
Analysis Batch: 387597

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.500	0.299		ug/L		60	40 - 160
Ethylene Dibromide	0.500	0.441		ug/L		88	70 - 130
1,2,3-Trichloropropane	0.500	0.410		ug/L		82	40 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*
4-Bromofluorobenzene	*96*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-119291-B-4 MS
Matrix: Water
Analysis Batch: 387597

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene	*85*		*70 - 130*

Lab Sample ID: 460-119291-B-4 MSD
Matrix: Water
Analysis Batch: 387597

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*
4-Bromofluorobenzene	*88*		*70 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-387196/1-A
Matrix: Water
Analysis Batch: 388543

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387196

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/27/16 13:07	09/03/16 06:30	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/27/16 13:07	09/03/16 06:30	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/27/16 13:07	09/03/16 06:30	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/27/16 13:07	09/03/16 06:30	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/27/16 13:07	09/03/16 06:30	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/27/16 13:07	09/03/16 06:30	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/27/16 13:07	09/03/16 06:30	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/27/16 13:07	09/03/16 06:30	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		08/27/16 13:07	09/03/16 06:30	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/27/16 13:07	09/03/16 06:30	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/27/16 13:07	09/03/16 06:30	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/27/16 13:07	09/03/16 06:30	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/27/16 13:07	09/03/16 06:30	1
Pentachlorophenol	2.2	U	20	2.2	ug/L		08/27/16 13:07	09/03/16 06:30	1
Bis(2-chloroethyl)ether	0.12	U	1.0	0.12	ug/L		08/27/16 13:07	09/03/16 06:30	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/27/16 13:07	09/03/16 06:30	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/27/16 13:07	09/03/16 06:30	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/27/16 13:07	09/03/16 06:30	1
Isophorone	0.67	U	10	0.67	ug/L		08/27/16 13:07	09/03/16 06:30	1
Naphthalene	0.80	U	10	0.80	ug/L		08/27/16 13:07	09/03/16 06:30	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/27/16 13:07	09/03/16 06:30	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/27/16 13:07	09/03/16 06:30	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/27/16 13:07	09/03/16 06:30	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/27/16 13:07	09/03/16 06:30	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/27/16 13:07	09/03/16 06:30	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/27/16 13:07	09/03/16 06:30	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/27/16 13:07	09/03/16 06:30	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/27/16 13:07	09/03/16 06:30	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/27/16 13:07	09/03/16 06:30	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-387196/1-A
Matrix: Water
Analysis Batch: 388543

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387196

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/27/16 13:07	09/03/16 06:30	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/27/16 13:07	09/03/16 06:30	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/27/16 13:07	09/03/16 06:30	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/27/16 13:07	09/03/16 06:30	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 06:30	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/27/16 13:07	09/03/16 06:30	1
Fluorene	0.80	U	10	0.80	ug/L		08/27/16 13:07	09/03/16 06:30	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/27/16 13:07	09/03/16 06:30	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/27/16 13:07	09/03/16 06:30	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 06:30	1
Hexachlorobenzene	0.47	U	1.0	0.47	ug/L		08/27/16 13:07	09/03/16 06:30	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/27/16 13:07	09/03/16 06:30	1
Anthracene	0.57	U	10	0.57	ug/L		08/27/16 13:07	09/03/16 06:30	1
Carbazole	0.85	U	10	0.85	ug/L		08/27/16 13:07	09/03/16 06:30	1
Di-n-butyl phthalate	1.47	J	10	0.82	ug/L		08/27/16 13:07	09/03/16 06:30	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/27/16 13:07	09/03/16 06:30	1
Pyrene	0.83	U	10	0.83	ug/L		08/27/16 13:07	09/03/16 06:30	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/27/16 13:07	09/03/16 06:30	1
Benzo[a]anthracene	0.55	U	1.0	0.55	ug/L		08/27/16 13:07	09/03/16 06:30	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/27/16 13:07	09/03/16 06:30	1
Bis(2-ethylhexyl) phthalate	1.60	J	2.0	0.72	ug/L		08/27/16 13:07	09/03/16 06:30	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/27/16 13:07	09/03/16 06:30	1
Benzo[b]fluoranthene	0.44	U	1.0	0.44	ug/L		08/27/16 13:07	09/03/16 06:30	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/27/16 13:07	09/03/16 06:30	1
Benzo[a]pyrene	0.16	U	1.0	0.16	ug/L		08/27/16 13:07	09/03/16 06:30	1
Indeno[1,2,3-cd]pyrene	0.21	U	1.0	0.21	ug/L		08/27/16 13:07	09/03/16 06:30	1
Dibenz(a,h)anthracene	0.090	U	1.0	0.090	ug/L		08/27/16 13:07	09/03/16 06:30	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/27/16 13:07	09/03/16 06:30	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/27/16 13:07	09/03/16 06:30	1
Acetophenone	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 06:30	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/27/16 13:07	09/03/16 06:30	1
Caprolactam	1.1	U	10	1.1	ug/L		08/27/16 13:07	09/03/16 06:30	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/27/16 13:07	09/03/16 06:30	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/27/16 13:07	09/03/16 06:30	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/27/16 13:07	09/03/16 06:30	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/27/16 13:07	09/03/16 06:30	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/27/16 13:07	09/03/16 06:30	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/27/16 13:07	09/03/16 06:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*86*		*30 - 130*	*08/27/16 13:07*	*09/03/16 06:30*	*1*
Phenol-d5 (Surr)	*24*		*15 - 110*	*08/27/16 13:07*	*09/03/16 06:30*	*1*
Terphenyl-d14 (Surr)	*93*		*30 - 130*	*08/27/16 13:07*	*09/03/16 06:30*	*1*
2,4,6-Tribromophenol (Surr)	*99*		*15 - 110*	*08/27/16 13:07*	*09/03/16 06:30*	*1*
2-Fluorophenol (Surr)	*36*		*15 - 110*	*08/27/16 13:07*	*09/03/16 06:30*	*1*
2-Fluorobiphenyl	*66*		*30 - 130*	*08/27/16 13:07*	*09/03/16 06:30*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-387196/2-A
Matrix: Water
Analysis Batch: 388543

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387196

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	80.0	25.0		ug/L		31	20 - 160
2-Chlorophenol	80.0	65.2		ug/L		81	70 - 130
2-Methylphenol	80.0	52.3	*	ug/L		65	70 - 130
4-Methylphenol	80.0	56.1		ug/L		70	20 - 160
2-Nitrophenol	80.0	63.7		ug/L		80	70 - 130
2,4-Dimethylphenol	80.0	62.0		ug/L		77	70 - 130
2,4-Dichlorophenol	80.0	65.5		ug/L		82	70 - 130
4-Chloro-3-methylphenol	80.0	69.3		ug/L		87	20 - 160
2,4,6-Trichlorophenol	80.0	71.4		ug/L		89	70 - 130
2,4,5-Trichlorophenol	80.0	67.0		ug/L		84	20 - 160
2,4-Dinitrotoluene	80.0	82.3		ug/L		103	70 - 130
4-Nitrophenol	160	46.0		ug/L		29	20 - 160
4,6-Dinitro-2-methylphenol	160	157		ug/L		98	20 - 160
Pentachlorophenol	160	172		ug/L		108	20 - 160
Bis(2-chloroethyl)ether	80.0	62.1		ug/L		78	70 - 130
N-Nitrosodi-n-propylamine	80.0	81.8		ug/L		102	70 - 130
Hexachloroethane	80.0	52.4		ug/L		65	20 - 160
Nitrobenzene	80.0	69.9		ug/L		87	70 - 130
Isophorone	80.0	70.2		ug/L		88	70 - 130
Naphthalene	80.0	64.2		ug/L		80	70 - 130
4-Chloroaniline	80.0	66.8		ug/L		84	20 - 160
Hexachlorobutadiene	80.0	43.9	*	ug/L		55	70 - 130
2-Methylnaphthalene	80.0	60.9		ug/L		76	70 - 130
Hexachlorocyclopentadiene	80.0	8.01	J *	ug/L		10	20 - 160
2-Chloronaphthalene	80.0	62.6		ug/L		78	70 - 130
2-Nitroaniline	80.0	75.4		ug/L		94	20 - 160
Dimethyl phthalate	80.0	72.9		ug/L		91	70 - 130
Acenaphthylene	80.0	70.4		ug/L		88	70 - 130
2,6-Dinitrotoluene	80.0	81.1		ug/L		101	70 - 130
3-Nitroaniline	80.0	74.3		ug/L		93	20 - 160
Acenaphthene	80.0	70.2		ug/L		88	70 - 130
Dibenzofuran	80.0	67.1		ug/L		84	70 - 130
2,4-Dinitrophenol	160	144		ug/L		90	20 - 160
Diethyl phthalate	80.0	75.0		ug/L		94	70 - 130
4-Chlorophenyl phenyl ether	80.0	66.0		ug/L		83	70 - 130
Fluorene	80.0	70.5		ug/L		88	70 - 130
4-Nitroaniline	80.0	75.4		ug/L		94	20 - 160
N-Nitrosodiphenylamine	80.0	75.5		ug/L		94	70 - 130
4-Bromophenyl phenyl ether	80.0	58.6		ug/L		73	70 - 130
Hexachlorobenzene	80.0	62.8		ug/L		79	70 - 130
Phenanthrene	80.0	75.9		ug/L		95	70 - 130
Anthracene	80.0	69.9		ug/L		87	70 - 130
Carbazole	80.0	78.8		ug/L		99	70 - 130
Di-n-butyl phthalate	80.0	78.3		ug/L		98	70 - 130
Fluoranthene	80.0	76.1		ug/L		95	70 - 130
Pyrene	80.0	79.2		ug/L		99	70 - 130
Butyl benzyl phthalate	80.0	80.8		ug/L		101	70 - 130
Benzo[a]anthracene	80.0	75.8		ug/L		95	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-387196/2-A
Matrix: Water
Analysis Batch: 388543

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387196

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	80.0	81.6		ug/L		102	70 - 130
Bis(2-ethylhexyl) phthalate	80.0	81.6		ug/L		102	70 - 130
Di-n-octyl phthalate	80.0	93.5		ug/L		117	70 - 130
Benzo[b]fluoranthene	80.0	78.6		ug/L		98	70 - 130
Benzo[k]fluoranthene	80.0	95.6		ug/L		119	70 - 130
Benzo[a]pyrene	80.0	72.9		ug/L		91	70 - 130
Indeno[1,2,3-cd]pyrene	80.0	74.0		ug/L		92	70 - 130
Dibenz(a,h)anthracene	80.0	78.5		ug/L		98	70 - 130
Benzo[g,h,i]perylene	80.0	74.6		ug/L		93	70 - 130
1,1'-Biphenyl	80.0	70.6		ug/L		88	70 - 130
Acetophenone	80.0	84.8		ug/L		106	70 - 130
2,2'-oxybis[1-chloropropane]	80.0	78.2		ug/L		98	70 - 130
1,2,4,5-Tetrachlorobenzene	80.0	45.3	*	ug/L		57	70 - 130
2,3,4,6-Tetrachlorophenol	80.0	76.9		ug/L		96	70 - 130
3,3'-Dichlorobenzidine	80.0	72.8		ug/L		91	70 - 130
Bis(2-chloroethoxy)methane	80.0	75.0		ug/L		94	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*84*		*30 - 130*
Phenol-d5 (Surr)	*28*		*15 - 110*
Terphenyl-d14 (Surr)	*90*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*92*		*15 - 110*
2-Fluorophenol (Surr)	*41*		*15 - 110*
2-Fluorobiphenyl	*68*		*30 - 130*

Lab Sample ID: LCS 460-387196/4-A
Matrix: Water
Analysis Batch: 388543

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387196

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzaldehyde	160	171		ug/L		107	20 - 160
Caprolactam	160	30.8	*	ug/L		19	20 - 160
Atrazine	160	148		ug/L		92	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*96*		*30 - 130*
Phenol-d5 (Surr)	*19*		*15 - 110*
Terphenyl-d14 (Surr)	*104*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*105*		*15 - 110*
2-Fluorophenol (Surr)	*42*		*15 - 110*
2-Fluorobiphenyl	*77*		*30 - 130*

Lab Sample ID: LCSD 460-387196/3-A
Matrix: Water
Analysis Batch: 388543

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 387196

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	80.0	22.7		ug/L		28	20 - 160	10	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-387196/3-A
Matrix: Water
Analysis Batch: 388543

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 387196

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chlorophenol	80.0	67.2		ug/L		84	70 - 130	3	20
2-Methylphenol	80.0	54.0	*	ug/L		68	70 - 130	3	20
4-Methylphenol	80.0	51.5		ug/L		64	20 - 160	9	20
2-Nitrophenol	80.0	77.8		ug/L		97	70 - 130	20	20
2,4-Dimethylphenol	80.0	62.7		ug/L		78	70 - 130	1	20
2,4-Dichlorophenol	80.0	65.1		ug/L		81	70 - 130	0	20
4-Chloro-3-methylphenol	80.0	69.1		ug/L		86	20 - 160	0	20
2,4,6-Trichlorophenol	80.0	71.5		ug/L		89	70 - 130	0	20
2,4,5-Trichlorophenol	80.0	72.2		ug/L		90	20 - 160	7	20
2,4-Dinitrotoluene	80.0	78.0		ug/L		97	70 - 130	5	20
4-Nitrophenol	160	40.5		ug/L		25	20 - 160	13	20
4,6-Dinitro-2-methylphenol	160	147		ug/L		92	20 - 160	7	20
Pentachlorophenol	160	159		ug/L		99	20 - 160	8	20
Bis(2-chloroethyl)ether	80.0	64.2		ug/L		80	70 - 130	3	20
N-Nitrosodi-n-propylamine	80.0	86.3		ug/L		108	70 - 130	5	20
Hexachloroethane	80.0	50.6		ug/L		63	20 - 160	4	20
Nitrobenzene	80.0	71.4		ug/L		89	70 - 130	2	20
Isophorone	80.0	71.7		ug/L		90	70 - 130	2	20
Naphthalene	80.0	61.8		ug/L		77	70 - 130	4	20
4-Chloroaniline	80.0	64.0		ug/L		80	20 - 160	4	20
Hexachlorobutadiene	80.0	43.0	*	ug/L		54	70 - 130	2	20
2-Methylnaphthalene	80.0	63.5		ug/L		79	70 - 130	4	20
Hexachlorocyclopentadiene	80.0	8.56	J *	ug/L		11	20 - 160	7	20
2-Chloronaphthalene	80.0	62.0		ug/L		78	70 - 130	1	20
2-Nitroaniline	80.0	76.6		ug/L		96	20 - 160	2	20
Dimethyl phthalate	80.0	76.8		ug/L		96	70 - 130	5	20
Acenaphthylene	80.0	71.7		ug/L		90	70 - 130	2	20
2,6-Dinitrotoluene	80.0	77.0		ug/L		96	70 - 130	5	20
3-Nitroaniline	80.0	68.2		ug/L		85	20 - 160	9	20
Acenaphthene	80.0	69.1		ug/L		86	70 - 130	1	20
Dibenzofuran	80.0	65.2		ug/L		82	70 - 130	3	20
2,4-Dinitrophenol	160	138		ug/L		87	20 - 160	4	20
Diethyl phthalate	80.0	75.4		ug/L		94	70 - 130	1	20
4-Chlorophenyl phenyl ether	80.0	64.3		ug/L		80	70 - 130	3	20
Fluorene	80.0	74.2		ug/L		93	70 - 130	5	20
4-Nitroaniline	80.0	74.5		ug/L		93	20 - 160	1	20
N-Nitrosodiphenylamine	80.0	74.2		ug/L		93	70 - 130	2	20
4-Bromophenyl phenyl ether	80.0	61.0		ug/L		76	70 - 130	4	20
Hexachlorobenzene	80.0	58.8		ug/L		73	70 - 130	7	20
Phenanthrene	80.0	72.9		ug/L		91	70 - 130	4	20
Anthracene	80.0	70.7		ug/L		88	70 - 130	1	20
Carbazole	80.0	78.8		ug/L		99	70 - 130	0	20
Di-n-butyl phthalate	80.0	81.5		ug/L		102	70 - 130	4	20
Fluoranthene	80.0	75.0		ug/L		94	70 - 130	1	20
Pyrene	80.0	73.7		ug/L		92	70 - 130	7	20
Butyl benzyl phthalate	80.0	76.6		ug/L		96	70 - 130	5	20
Benzo[a]anthracene	80.0	76.3		ug/L		95	70 - 130	1	20
Chrysene	80.0	72.1		ug/L		90	70 - 130	12	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-387196/3-A
Matrix: Water
Analysis Batch: 388543

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 387196

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate			80.0	77.4		ug/L		97	70 - 130	5	20
Di-n-octyl phthalate			80.0	89.4		ug/L		112	70 - 130	4	20
Benzo[b]fluoranthene			80.0	76.3		ug/L		95	70 - 130	3	20
Benzo[k]fluoranthene			80.0	88.1		ug/L		110	70 - 130	8	20
Benzo[a]pyrene			80.0	70.2		ug/L		88	70 - 130	4	20
Indeno[1,2,3-cd]pyrene			80.0	72.1		ug/L		90	70 - 130	3	20
Dibenz(a,h)anthracene			80.0	74.8		ug/L		94	70 - 130	5	20
Benzo[g,h,i]perylene			80.0	69.6		ug/L		87	70 - 130	7	20
1,1'-Biphenyl			80.0	66.4		ug/L		83	70 - 130	6	20
Acetophenone			80.0	84.0		ug/L		105	70 - 130	1	20
2,2'-oxybis[1-chloropropane]			80.0	82.4		ug/L		103	70 - 130	5	20
1,2,4,5-Tetrachlorobenzene			80.0	47.7	*	ug/L		60	70 - 130	5	20
2,3,4,6-Tetrachlorophenol			80.0	77.9		ug/L		97	70 - 130	1	20
3,3'-Dichlorobenzidine			80.0	72.1		ug/L		90	70 - 130	1	20
Bis(2-chloroethoxy)methane			80.0	73.0		ug/L		91	70 - 130	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*84*		*30 - 130*
Phenol-d5 (Surr)	*26*		*15 - 110*
Terphenyl-d14 (Surr)	*89*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*98*		*15 - 110*
2-Fluorophenol (Surr)	*35*		*15 - 110*
2-Fluorobiphenyl	*71*		*30 - 130*

Lab Sample ID: LCSD 460-387196/5-A
Matrix: Water
Analysis Batch: 388543

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 387196

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzaldehyde			160	156		ug/L		97	20 - 160	9	20
Caprolactam			160	45.5	*	ug/L		28	20 - 160	39	20
Atrazine			160	146		ug/L		92	70 - 130	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*88*		*30 - 130*
Phenol-d5 (Surr)	*20*		*15 - 110*
Terphenyl-d14 (Surr)	*96*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*101*		*15 - 110*
2-Fluorophenol (Surr)	*48*		*15 - 110*
2-Fluorobiphenyl	*69*		*30 - 130*

Lab Sample ID: MB 460-387311/1-A
Matrix: Water
Analysis Batch: 387551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/28/16 20:28	08/30/16 07:27	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/28/16 20:28	08/30/16 07:27	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-387311/1-A
Matrix: Water
Analysis Batch: 387551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	1.3	U	10	1.3	ug/L		08/28/16 20:28	08/30/16 07:27	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/28/16 20:28	08/30/16 07:27	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/28/16 20:28	08/30/16 07:27	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/28/16 20:28	08/30/16 07:27	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/28/16 20:28	08/30/16 07:27	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/28/16 20:28	08/30/16 07:27	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		08/28/16 20:28	08/30/16 07:27	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/28/16 20:28	08/30/16 07:27	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/28/16 20:28	08/30/16 07:27	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/28/16 20:28	08/30/16 07:27	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/28/16 20:28	08/30/16 07:27	1
Pentachlorophenol	2.2	U	20	2.2	ug/L		08/28/16 20:28	08/30/16 07:27	1
Bis(2-chloroethyl)ether	0.12	U	1.0	0.12	ug/L		08/28/16 20:28	08/30/16 07:27	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/28/16 20:28	08/30/16 07:27	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/28/16 20:28	08/30/16 07:27	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/28/16 20:28	08/30/16 07:27	1
Isophorone	0.67	U	10	0.67	ug/L		08/28/16 20:28	08/30/16 07:27	1
Naphthalene	0.80	U	10	0.80	ug/L		08/28/16 20:28	08/30/16 07:27	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/28/16 20:28	08/30/16 07:27	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/28/16 20:28	08/30/16 07:27	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/28/16 20:28	08/30/16 07:27	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/28/16 20:28	08/30/16 07:27	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/28/16 20:28	08/30/16 07:27	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/28/16 20:28	08/30/16 07:27	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/28/16 20:28	08/30/16 07:27	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/28/16 20:28	08/30/16 07:27	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/28/16 20:28	08/30/16 07:27	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/28/16 20:28	08/30/16 07:27	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/28/16 20:28	08/30/16 07:27	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/28/16 20:28	08/30/16 07:27	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/28/16 20:28	08/30/16 07:27	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/28/16 20:28	08/30/16 07:27	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/28/16 20:28	08/30/16 07:27	1
Fluorene	0.80	U	10	0.80	ug/L		08/28/16 20:28	08/30/16 07:27	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/28/16 20:28	08/30/16 07:27	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/28/16 20:28	08/30/16 07:27	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/28/16 20:28	08/30/16 07:27	1
Hexachlorobenzene	0.47	U	1.0	0.47	ug/L		08/28/16 20:28	08/30/16 07:27	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/28/16 20:28	08/30/16 07:27	1
Anthracene	0.57	U	10	0.57	ug/L		08/28/16 20:28	08/30/16 07:27	1
Carbazole	0.85	U	10	0.85	ug/L		08/28/16 20:28	08/30/16 07:27	1
Di-n-butyl phthalate	0.82	U	10	0.82	ug/L		08/28/16 20:28	08/30/16 07:27	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/28/16 20:28	08/30/16 07:27	1
Pyrene	0.83	U	10	0.83	ug/L		08/28/16 20:28	08/30/16 07:27	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/28/16 20:28	08/30/16 07:27	1
Benzo[a]anthracene	0.55	U	1.0	0.55	ug/L		08/28/16 20:28	08/30/16 07:27	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/28/16 20:28	08/30/16 07:27	1
Bis(2-ethylhexyl) phthalate	0.72	U	2.0	0.72	ug/L		08/28/16 20:28	08/30/16 07:27	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-387311/1-A
Matrix: Water
Analysis Batch: 387551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/28/16 20:28	08/30/16 07:27	1
Benzo[b]fluoranthene	0.44	U	1.0	0.44	ug/L		08/28/16 20:28	08/30/16 07:27	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/28/16 20:28	08/30/16 07:27	1
Benzo[a]pyrene	0.16	U	1.0	0.16	ug/L		08/28/16 20:28	08/30/16 07:27	1
Indeno[1,2,3-cd]pyrene	0.21	U	1.0	0.21	ug/L		08/28/16 20:28	08/30/16 07:27	1
Dibenz(a,h)anthracene	0.090	U	1.0	0.090	ug/L		08/28/16 20:28	08/30/16 07:27	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/28/16 20:28	08/30/16 07:27	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/28/16 20:28	08/30/16 07:27	1
Acetophenone	1.0	U	10	1.0	ug/L		08/28/16 20:28	08/30/16 07:27	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/28/16 20:28	08/30/16 07:27	1
Caprolactam	1.1	U	10	1.1	ug/L		08/28/16 20:28	08/30/16 07:27	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/28/16 20:28	08/30/16 07:27	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/28/16 20:28	08/30/16 07:27	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/28/16 20:28	08/30/16 07:27	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/28/16 20:28	08/30/16 07:27	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/28/16 20:28	08/30/16 07:27	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/28/16 20:28	08/30/16 07:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*83*		*30 - 130*	*08/28/16 20:28*	*08/30/16 07:27*	*1*
Phenol-d5 (Surr)	*21*		*15 - 110*	*08/28/16 20:28*	*08/30/16 07:27*	*1*
Terphenyl-d14 (Surr)	*96*		*30 - 130*	*08/28/16 20:28*	*08/30/16 07:27*	*1*
2,4,6-Tribromophenol (Surr)	*97*		*15 - 110*	*08/28/16 20:28*	*08/30/16 07:27*	*1*
2-Fluorophenol (Surr)	*40*		*15 - 110*	*08/28/16 20:28*	*08/30/16 07:27*	*1*
2-Fluorobiphenyl	*76*		*30 - 130*	*08/28/16 20:28*	*08/30/16 07:27*	*1*

Lab Sample ID: LCS 460-387311/2-A
Matrix: Water
Analysis Batch: 387551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	80.0	26.0		ug/L		33	20 - 160
2-Chlorophenol	80.0	62.8		ug/L		78	70 - 130
2-Methylphenol	80.0	51.7	*	ug/L		65	70 - 130
4-Methylphenol	80.0	46.9		ug/L		59	20 - 160
2-Nitrophenol	80.0	66.2		ug/L		83	70 - 130
2,4-Dimethylphenol	80.0	69.6		ug/L		87	70 - 130
2,4-Dichlorophenol	80.0	67.4		ug/L		84	70 - 130
4-Chloro-3-methylphenol	80.0	71.5		ug/L		89	20 - 160
2,4,6-Trichlorophenol	80.0	66.5		ug/L		83	70 - 130
2,4,5-Trichlorophenol	80.0	64.9		ug/L		81	20 - 160
2,4-Dinitrotoluene	80.0	82.4		ug/L		103	70 - 130
4-Nitrophenol	160	40.3		ug/L		25	20 - 160
4,6-Dinitro-2-methylphenol	160	133		ug/L		83	20 - 160
Pentachlorophenol	160	146		ug/L		91	20 - 160
Bis(2-chloroethyl)ether	80.0	62.1		ug/L		78	70 - 130
N-Nitrosodi-n-propylamine	80.0	81.3		ug/L		102	70 - 130
Hexachloroethane	80.0	54.9		ug/L		69	20 - 160

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-387311/2-A
Matrix: Water
Analysis Batch: 387551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrobenzene	80.0	80.4		ug/L		101	70 - 130
Isophorone	80.0	74.1		ug/L		93	70 - 130
Naphthalene	80.0	66.2		ug/L		83	70 - 130
4-Chloroaniline	80.0	66.4		ug/L		83	20 - 160
Hexachlorobutadiene	80.0	60.4		ug/L		75	70 - 130
2-Methylnaphthalene	80.0	71.5		ug/L		89	70 - 130
Hexachlorocyclopentadiene	80.0	47.7		ug/L		60	20 - 160
2-Chloronaphthalene	80.0	68.4		ug/L		85	70 - 130
2-Nitroaniline	80.0	75.0		ug/L		94	20 - 160
Dimethyl phthalate	80.0	73.4		ug/L		92	70 - 130
Acenaphthylene	80.0	73.4		ug/L		92	70 - 130
2,6-Dinitrotoluene	80.0	71.9		ug/L		90	70 - 130
3-Nitroaniline	80.0	64.7		ug/L		81	20 - 160
Acenaphthene	80.0	66.8		ug/L		84	70 - 130
Dibenzofuran	80.0	72.4		ug/L		91	70 - 130
2,4-Dinitrophenol	160	95.9		ug/L		60	20 - 160
Diethyl phthalate	80.0	73.5		ug/L		92	70 - 130
4-Chlorophenyl phenyl ether	80.0	76.1		ug/L		95	70 - 130
Fluorene	80.0	73.5		ug/L		92	70 - 130
4-Nitroaniline	80.0	62.9		ug/L		79	20 - 160
N-Nitrosodiphenylamine	80.0	70.7		ug/L		88	70 - 130
4-Bromophenyl phenyl ether	80.0	74.1		ug/L		93	70 - 130
Hexachlorobenzene	80.0	75.6		ug/L		95	70 - 130
Phenanthrene	80.0	74.2		ug/L		93	70 - 130
Anthracene	80.0	75.4		ug/L		94	70 - 130
Carbazole	80.0	72.2		ug/L		90	70 - 130
Di-n-butyl phthalate	80.0	78.7		ug/L		98	70 - 130
Fluoranthene	80.0	72.6		ug/L		91	70 - 130
Pyrene	80.0	80.0		ug/L		100	70 - 130
Butyl benzyl phthalate	80.0	77.7		ug/L		97	70 - 130
Benzo[a]anthracene	80.0	78.9		ug/L		99	70 - 130
Chrysene	80.0	80.1		ug/L		100	70 - 130
Bis(2-ethylhexyl) phthalate	80.0	72.9		ug/L		91	70 - 130
Di-n-octyl phthalate	80.0	75.2		ug/L		94	70 - 130
Benzo[b]fluoranthene	80.0	70.6		ug/L		88	70 - 130
Benzo[k]fluoranthene	80.0	71.8		ug/L		90	70 - 130
Benzo[a]pyrene	80.0	70.7		ug/L		88	70 - 130
Indeno[1,2,3-cd]pyrene	80.0	75.7		ug/L		95	70 - 130
Dibenz(a,h)anthracene	80.0	82.8		ug/L		103	70 - 130
Benzo[g,h,i]perylene	80.0	71.1		ug/L		89	70 - 130
1,1'-Biphenyl	80.0	72.5		ug/L		91	70 - 130
Acetophenone	80.0	76.7		ug/L		96	70 - 130
2,2'-oxybis[1-chloropropane]	80.0	77.3		ug/L		97	70 - 130
1,2,4,5-Tetrachlorobenzene	80.0	64.5		ug/L		81	70 - 130
2,3,4,6-Tetrachlorophenol	80.0	76.1		ug/L		95	70 - 130
3,3'-Dichlorobenzidine	80.0	74.8		ug/L		94	70 - 130
Bis(2-chloroethoxy)methane	80.0	77.4		ug/L		97	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-387311/2-A
Matrix: Water
Analysis Batch: 387551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387311

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*83*		*30 - 130*
Phenol-d5 (Surr)	*26*		*15 - 110*
Terphenyl-d14 (Surr)	*84*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*94*		*15 - 110*
2-Fluorophenol (Surr)	*35*		*15 - 110*
2-Fluorobiphenyl	*82*		*30 - 130*

Lab Sample ID: LCS 460-387311/3-A
Matrix: Water
Analysis Batch: 387551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzaldehyde	160	141		ug/L		88	20 - 160
Caprolactam	160	38.7		ug/L		24	20 - 160
Atrazine	160	156		ug/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*77*		*30 - 130*
Phenol-d5 (Surr)	*20*		*15 - 110*
Terphenyl-d14 (Surr)	*94*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*91*		*15 - 110*
2-Fluorophenol (Surr)	*32*		*15 - 110*
2-Fluorobiphenyl	*73*		*30 - 130*

Lab Sample ID: 460-119215-E-1-A MS
Matrix: Water
Analysis Batch: 387551

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387311

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.41	U	80.0	23.4		ug/L		29	20 - 160
2-Chlorophenol	0.74	U	80.0	60.3		ug/L		75	70 - 130
2-Methylphenol	1.3	U F1 *	80.0	45.7	F1	ug/L		57	70 - 130
4-Methylphenol	0.87	U	80.0	49.4		ug/L		62	20 - 160
2-Nitrophenol	0.59	U	80.0	67.1		ug/L		84	70 - 130
2,4-Dimethylphenol	0.91	U	80.0	60.4		ug/L		75	70 - 130
2,4-Dichlorophenol	0.63	U	80.0	61.9		ug/L		77	70 - 130
4-Chloro-3-methylphenol	0.76	U	80.0	63.6		ug/L		80	20 - 160
2,4,6-Trichlorophenol	0.53	U	80.0	65.1		ug/L		81	20 - 160
2,4,5-Trichlorophenol	0.49	U	80.0	65.7		ug/L		82	20 - 160
2,4-Dinitrotoluene	1.0	U	80.0	75.0		ug/L		94	70 - 130
4-Nitrophenol	4.7	U	160	46.2		ug/L		29	20 - 160
4,6-Dinitro-2-methylphenol	2.0	U	160	138		ug/L		86	20 - 160
Pentachlorophenol	2.2	U	160	150		ug/L		94	20 - 160
Bis(2-chloroethyl)ether	0.12	U	80.0	61.5		ug/L		77	70 - 130
N-Nitrosodi-n-propylamine	0.83	U	80.0	77.0		ug/L		96	70 - 130
Hexachloroethane	0.090	U	80.0	61.2		ug/L		77	20 - 160
Nitrobenzene	0.49	U	80.0	76.0		ug/L		95	70 - 130
Isophorone	0.67	U	80.0	69.4		ug/L		87	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-119215-E-1-A MS
Matrix: Water
Analysis Batch: 387551

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387311

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	0.80	U	80.0	62.2		ug/L		78	70 - 130
4-Chloroaniline	0.73	U	80.0	61.2		ug/L		76	20 - 160
Hexachlorobutadiene	0.76	U	80.0	58.7		ug/L		73	70 - 130
2-Methylnaphthalene	0.88	U	80.0	67.4		ug/L		84	70 - 130
Hexachlorocyclopentadiene	0.61	U	80.0	49.5		ug/L		62	20 - 160
2-Chloronaphthalene	0.61	U	80.0	65.9		ug/L		82	70 - 130
2-Nitroaniline	0.65	U	80.0	71.8		ug/L		90	20 - 160
Dimethyl phthalate	0.98	U	80.0	76.2		ug/L		95	70 - 130
Acenaphthylene	0.65	U	80.0	69.7		ug/L		87	70 - 130
2,6-Dinitrotoluene	0.88	U	80.0	73.1		ug/L		91	70 - 130
3-Nitroaniline	0.82	U	80.0	63.9		ug/L		80	20 - 160
Acenaphthene	0.88	U	80.0	66.3		ug/L		83	70 - 130
Dibenzofuran	0.85	U	80.0	68.7		ug/L		86	70 - 130
2,4-Dinitrophenol	2.4	U	160	103		ug/L		65	20 - 160
Diethyl phthalate	1.0	U	80.0	71.3		ug/L		89	70 - 130
4-Chlorophenyl phenyl ether	0.96	U	80.0	73.1		ug/L		91	70 - 130
Fluorene	0.80	U	80.0	69.6		ug/L		87	70 - 130
4-Nitroaniline	0.48	U	80.0	59.5		ug/L		74	20 - 160
N-Nitrosodiphenylamine	0.74	U	80.0	69.1		ug/L		86	70 - 130
4-Bromophenyl phenyl ether	1.0	U	80.0	71.8		ug/L		90	70 - 130
Hexachlorobenzene	0.47	U	80.0	71.3		ug/L		89	70 - 130
Phenanthrene	0.65	U	80.0	73.4		ug/L		92	70 - 130
Anthracene	0.57	U	80.0	71.3		ug/L		89	70 - 130
Carbazole	0.85	U	80.0	73.2		ug/L		92	70 - 130
Di-n-butyl phthalate	0.82	U	80.0	75.1		ug/L		94	70 - 130
Fluoranthene	0.72	U	80.0	73.1		ug/L		91	70 - 130
Pyrene	0.83	U	80.0	73.5		ug/L		92	70 - 130
Butyl benzyl phthalate	0.60	U	80.0	78.6		ug/L		98	70 - 130
Benzo[a]anthracene	0.55	U	80.0	77.4		ug/L		97	70 - 130
Chrysene	0.67	U	80.0	78.7		ug/L		98	70 - 130
Bis(2-ethylhexyl) phthalate	0.72	U	80.0	76.3		ug/L		95	70 - 130
Di-n-octyl phthalate	0.69	U	80.0	71.8		ug/L		90	70 - 130
Benzo[b]fluoranthene	0.44	U	80.0	69.0		ug/L		86	70 - 130
Benzo[k]fluoranthene	0.18	U	80.0	79.8		ug/L		100	70 - 130
Benzo[a]pyrene	0.16	U	80.0	73.5		ug/L		92	70 - 130
Indeno[1,2,3-cd]pyrene	0.21	U	80.0	73.5		ug/L		92	70 - 130
Dibenz(a,h)anthracene	0.090	U	80.0	77.4		ug/L		97	70 - 130
Benzo[g,h,i]perylene	0.75	U	80.0	76.3		ug/L		95	70 - 130
1,1'-Biphenyl	0.63	U	80.0	71.4		ug/L		89	70 - 130
Acetophenone	1.0	U	80.0	76.3		ug/L		95	70 - 130
Benzaldehyde	0.86	U	160	133		ug/L		83	20 - 160
Caprolactam	1.1	U F1	160	29.1	F1	ug/L		18	20 - 160
Atrazine	0.77	U	160	142		ug/L		89	70 - 130
2,2'-oxybis[1-chloropropane]	0.93	U	80.0	73.0		ug/L		91	70 - 130
1,2,4,5-Tetrachlorobenzene	0.43	U	80.0	66.1		ug/L		83	70 - 130
2,3,4,6-Tetrachlorophenol	0.69	U	80.0	72.3		ug/L		90	70 - 130
3,3'-Dichlorobenzidine	1.0	U	80.0	71.6		ug/L		89	70 - 130
Bis(2-chloroethoxy)methane	0.69	U	80.0	71.0		ug/L		89	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-119215-E-1-A MS
Matrix: Water
Analysis Batch: 387551

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387311

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*78*		*30 - 130*
Phenol-d5 (Surr)	*26*		*15 - 110*
Terphenyl-d14 (Surr)	*83*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*96*		*15 - 110*
2-Fluorophenol (Surr)	*32*		*15 - 110*
2-Fluorobiphenyl	*83*		*30 - 130*

Lab Sample ID: 460-119215-E-1-B MSD
Matrix: Water
Analysis Batch: 387551

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 387311

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.41	U	80.0	23.2		ug/L		29	20 - 160	1	20
2-Chlorophenol	0.74	U	80.0	62.0		ug/L		78	70 - 130	3	20
2-Methylphenol	1.3	U F1 *	80.0	54.0	F1	ug/L		67	70 - 130	17	20
4-Methylphenol	0.87	U	80.0	49.6		ug/L		62	20 - 160	0	20
2-Nitrophenol	0.59	U	80.0	75.1		ug/L		94	70 - 130	11	20
2,4-Dimethylphenol	0.91	U	80.0	61.0		ug/L		76	70 - 130	1	20
2,4-Dichlorophenol	0.63	U	80.0	67.9		ug/L		85	70 - 130	9	20
4-Chloro-3-methylphenol	0.76	U	80.0	72.5		ug/L		91	20 - 160	13	20
2,4,6-Trichlorophenol	0.53	U	80.0	72.0		ug/L		90	20 - 160	10	20
2,4,5-Trichlorophenol	0.49	U	80.0	69.5		ug/L		87	20 - 160	6	20
2,4-Dinitrotoluene	1.0	U	80.0	82.1		ug/L		103	70 - 130	9	20
4-Nitrophenol	4.7	U	160	42.8		ug/L		27	20 - 160	8	20
4,6-Dinitro-2-methylphenol	2.0	U	160	144		ug/L		90	20 - 160	5	20
Pentachlorophenol	2.2	U	160	151		ug/L		95	20 - 160	1	20
Bis(2-chloroethyl)ether	0.12	U	80.0	61.8		ug/L		77	70 - 130	1	20
N-Nitrosodi-n-propylamine	0.83	U	80.0	84.8		ug/L		106	70 - 130	10	20
Hexachloroethane	0.090	U	80.0	62.2		ug/L		78	20 - 160	2	20
Nitrobenzene	0.49	U	80.0	77.5		ug/L		97	70 - 130	2	20
Isophorone	0.67	U	80.0	69.0		ug/L		86	70 - 130	1	20
Naphthalene	0.80	U	80.0	65.3		ug/L		82	70 - 130	5	20
4-Chloroaniline	0.73	U	80.0	61.5		ug/L		77	20 - 160	1	20
Hexachlorobutadiene	0.76	U	80.0	63.7		ug/L		80	70 - 130	8	20
2-Methylnaphthalene	0.88	U	80.0	72.3		ug/L		90	70 - 130	7	20
Hexachlorocyclopentadiene	0.61	U	80.0	56.7		ug/L		71	20 - 160	14	20
2-Chloronaphthalene	0.61	U	80.0	72.9		ug/L		91	70 - 130	10	20
2-Nitroaniline	0.65	U	80.0	74.0		ug/L		93	20 - 160	3	20
Dimethyl phthalate	0.98	U	80.0	79.0		ug/L		99	70 - 130	4	20
Acenaphthylene	0.65	U	80.0	76.7		ug/L		96	70 - 130	10	20
2,6-Dinitrotoluene	0.88	U	80.0	79.4		ug/L		99	70 - 130	8	20
3-Nitroaniline	0.82	U	80.0	61.2		ug/L		77	20 - 160	4	20
Acenaphthene	0.88	U	80.0	74.0		ug/L		92	70 - 130	11	20
Dibenzofuran	0.85	U	80.0	74.3		ug/L		93	70 - 130	8	20
2,4-Dinitrophenol	2.4	U	160	110		ug/L		69	20 - 160	6	20
Diethyl phthalate	1.0	U	80.0	78.1		ug/L		98	70 - 130	9	20
4-Chlorophenyl phenyl ether	0.96	U	80.0	76.7		ug/L		96	70 - 130	5	20
Fluorene	0.80	U	80.0	80.0		ug/L		100	70 - 130	14	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-119215-E-1-B MSD
Matrix: Water
Analysis Batch: 387551

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 387311

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Nitroaniline	0.48	U	80.0	59.7		ug/L		75	20 - 160	0	20
N-Nitrosodiphenylamine	0.74	U	80.0	69.4		ug/L		87	70 - 130	1	20
4-Bromophenyl phenyl ether	1.0	U	80.0	71.5		ug/L		89	70 - 130	0	20
Hexachlorobenzene	0.47	U	80.0	75.6		ug/L		94	70 - 130	6	20
Phenanthrene	0.65	U	80.0	78.5		ug/L		98	70 - 130	7	20
Anthracene	0.57	U	80.0	72.9		ug/L		91	70 - 130	2	20
Carbazole	0.85	U	80.0	75.5		ug/L		94	70 - 130	3	20
Di-n-butyl phthalate	0.82	U	80.0	79.0		ug/L		99	70 - 130	5	20
Fluoranthene	0.72	U	80.0	75.4		ug/L		94	70 - 130	3	20
Pyrene	0.83	U	80.0	72.8		ug/L		91	70 - 130	1	20
Butyl benzyl phthalate	0.60	U	80.0	74.9		ug/L		94	70 - 130	5	20
Benzo[a]anthracene	0.55	U	80.0	79.0		ug/L		99	70 - 130	2	20
Chrysene	0.67	U	80.0	80.0		ug/L		100	70 - 130	2	20
Bis(2-ethylhexyl) phthalate	0.72	U	80.0	75.2		ug/L		94	70 - 130	1	20
Di-n-octyl phthalate	0.69	U	80.0	73.8		ug/L		92	70 - 130	3	20
Benzo[b]fluoranthene	0.44	U	80.0	66.1		ug/L		83	70 - 130	4	20
Benzo[k]fluoranthene	0.18	U	80.0	84.7		ug/L		106	70 - 130	6	20
Benzo[a]pyrene	0.16	U	80.0	73.8		ug/L		92	70 - 130	0	20
Indeno[1,2,3-cd]pyrene	0.21	U	80.0	76.6		ug/L		96	70 - 130	4	20
Dibenz(a,h)anthracene	0.090	U	80.0	81.0		ug/L		101	70 - 130	5	20
Benzo[g,h,i]perylene	0.75	U	80.0	72.2		ug/L		90	70 - 130	5	20
1,1'-Biphenyl	0.63	U	80.0	80.5		ug/L		101	70 - 130	12	20
Acetophenone	1.0	U	80.0	80.3		ug/L		100	70 - 130	5	20
Benzaldehyde	0.86	U	160	140		ug/L		87	20 - 160	5	20
Caprolactam	1.1	U F1	160	32.5		ug/L		20	20 - 160	11	20
Atrazine	0.77	U	160	165		ug/L		103	70 - 130	15	20
2,2'-oxybis[1-chloropropane]	0.93	U	80.0	80.9		ug/L		101	70 - 130	10	20
1,2,4,5-Tetrachlorobenzene	0.43	U	80.0	68.4		ug/L		86	70 - 130	3	20
2,3,4,6-Tetrachlorophenol	0.69	U	80.0	70.7		ug/L		88	70 - 130	2	20
3,3'-Dichlorobenzidine	1.0	U	80.0	74.3		ug/L		93	70 - 130	4	20
Bis(2-chloroethoxy)methane	0.69	U	80.0	74.5		ug/L		93	70 - 130	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*83*		*30 - 130*
Phenol-d5 (Surr)	*28*		*15 - 110*
Terphenyl-d14 (Surr)	*83*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*97*		*15 - 110*
2-Fluorophenol (Surr)	*44*		*15 - 110*
2-Fluorobiphenyl	*88*		*30 - 130*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 460-387196/1-A
Matrix: Water
Analysis Batch: 388356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387196

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/27/16 13:07	09/02/16 13:48	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 460-387196/1-A
Matrix: Water
Analysis Batch: 388356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387196

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/27/16 13:07	09/02/16 13:48	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/27/16 13:07	09/02/16 13:48	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/27/16 13:07	09/02/16 13:48	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/27/16 13:07	09/02/16 13:48	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		08/27/16 13:07	09/02/16 13:48	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/27/16 13:07	09/02/16 13:48	1
N-Nitrosodimethylamine	0.051	U	0.20	0.051	ug/L		08/27/16 13:07	09/02/16 13:48	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/27/16 13:07	09/02/16 13:48	1

Lab Sample ID: LCS 460-387196/6-A
Matrix: Water
Analysis Batch: 388356

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387196

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.800	0.597		ug/L		75	70 - 130
Benzo[a]pyrene	0.800	0.562		ug/L		70	70 - 130
Benzo[b]fluoranthene	0.800	0.580		ug/L		72	70 - 130
Bis(2-chloroethyl)ether	0.800	0.762		ug/L		95	70 - 130
Dibenz(a,h)anthracene	0.800	0.638		ug/L		80	70 - 130
Hexachlorobenzene	0.800	0.420	*	ug/L		53	70 - 130
Indeno[1,2,3-cd]pyrene	0.800	0.577		ug/L		72	70 - 130
N-Nitrosodimethylamine	0.800	0.177	J	ug/L		22	20 - 160
Pentachlorophenol	1.60	0.319		ug/L		20	20 - 160

Lab Sample ID: MB 460-387311/1-A
Matrix: Water
Analysis Batch: 388052

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/28/16 20:28	09/01/16 17:41	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/28/16 20:28	09/01/16 17:41	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/28/16 20:28	09/01/16 17:41	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/28/16 20:28	09/01/16 17:41	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/28/16 20:28	09/01/16 17:41	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		08/28/16 20:28	09/01/16 17:41	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/28/16 20:28	09/01/16 17:41	1
N-Nitrosodimethylamine	0.051	U	0.20	0.051	ug/L		08/28/16 20:28	09/01/16 17:41	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/28/16 20:28	09/01/16 17:41	1

Lab Sample ID: LCS 460-387311/4-A
Matrix: Water
Analysis Batch: 387918

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.800	0.731		ug/L		91	70 - 130
Benzo[a]pyrene	0.800	0.667		ug/L		83	70 - 130
Benzo[b]fluoranthene	0.800	0.709		ug/L		89	70 - 130
Bis(2-chloroethyl)ether	0.800	0.683		ug/L		85	70 - 130
Dibenz(a,h)anthracene	0.800	0.662		ug/L		83	70 - 130

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 460-387311/4-A
Matrix: Water
Analysis Batch: 387918

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorobenzene	0.800	0.671		ug/L		84	70 - 130
Indeno[1,2,3-cd]pyrene	0.800	0.700		ug/L		87	70 - 130
N-Nitrosodimethylamine	0.800	0.309		ug/L		39	20 - 160
Pentachlorophenol	1.60	0.518		ug/L		32	20 - 160

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-386833/1-A
Matrix: Water
Analysis Batch: 386921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386833

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 09:05	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/25/16 19:20	08/26/16 09:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*68*		*30 - 150*	*08/25/16 19:20*	*08/26/16 09:05*	*1*
Tetrachloro-m-xylene	*74*		*30 - 150*	*08/25/16 19:20*	*08/26/16 09:05*	*1*
DCB Decachlorobiphenyl	*118*		*30 - 150*	*08/25/16 19:20*	*08/26/16 09:05*	*1*
DCB Decachlorobiphenyl	*121*		*30 - 150*	*08/25/16 19:20*	*08/26/16 09:05*	*1*

Lab Sample ID: LCS 460-386833/2-A
Matrix: Water
Analysis Batch: 386921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386833

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	4.00	4.20		ug/L		105	40 - 140
PCB-1016	4.00	4.29		ug/L		107	40 - 140
PCB-1260	4.00	5.52		ug/L		138	40 - 140
PCB-1260	4.00	5.84	*	ug/L		146	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*59*		*30 - 150*
Tetrachloro-m-xylene	*65*		*30 - 150*
DCB Decachlorobiphenyl	*141*		*30 - 150*
DCB Decachlorobiphenyl	*141*		*30 - 150*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-386833/3-A
Matrix: Water
Analysis Batch: 386921

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 386833

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			4.00	4.37		ug/L		109	40 - 140	2	20
PCB-1016			4.00	4.28		ug/L		107	40 - 140	2	20
PCB-1260			4.00	6.05	*	ug/L		151	40 - 140	4	20
PCB-1260			4.00	5.80	*	ug/L		145	40 - 140	5	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*80*		*30 - 150*
Tetrachloro-m-xylene	*79*		*30 - 150*
DCB Decachlorobiphenyl	*132*		*30 - 150*
DCB Decachlorobiphenyl	*121*		*30 - 150*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 460-388806/3
Matrix: Water
Analysis Batch: 388806

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			09/06/16 10:39	1
Sulfate	0.11	U	0.60	0.11	mg/L			09/06/16 10:39	1

Lab Sample ID: LCS 460-388806/5
Matrix: Water
Analysis Batch: 388806

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide			5.00	5.128		mg/L		103	90 - 110
Chloride			1.50	1.530		mg/L		102	90 - 110
Fluoride			1.00	1.099		mg/L		110	90 - 110
Sulfate			7.50	7.452		mg/L		99	90 - 110

Lab Sample ID: LCSD 460-388806/6
Matrix: Water
Analysis Batch: 388806

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide			5.00	5.207		mg/L		104	90 - 110	2	15
Chloride			1.50	1.499		mg/L		100	90 - 110	2	15
Fluoride			1.00	1.086		mg/L		109	90 - 110	1	15
Sulfate			7.50	7.374		mg/L		98	90 - 110	1	15

Lab Sample ID: 460-119092-3 MS
Matrix: Water
Analysis Batch: 388806

Client Sample ID: PMP-AS-50-082316
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	0.081	U	5.00	4.917		mg/L		98	90 - 110
Chloride	1.32		1.50	2.793		mg/L		99	90 - 110

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: 460-119092-3 MS
Matrix: Water
Analysis Batch: 388806

Client Sample ID: PMP-AS-50-082316
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.050	J	1.00	1.063		mg/L		101	90 - 110
Sulfate	7.30		7.50	14.45		mg/L		95	90 - 110

Lab Sample ID: 460-119092-3 MSD
Matrix: Water
Analysis Batch: 388806

Client Sample ID: PMP-AS-50-082316
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	0.081	U	5.00	5.006		mg/L		100	90 - 110	2	15
Chloride	1.32		1.50	2.797		mg/L		99	90 - 110	0	15
Fluoride	0.050	J	1.00	1.104		mg/L		105	90 - 110	4	15
Sulfate	7.30		7.50	15.04		mg/L		103	90 - 110	4	15

Lab Sample ID: 460-119092-3 DU
Matrix: Water
Analysis Batch: 388806

Client Sample ID: PMP-AS-50-082316
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	1.32		1.354		mg/L		3	15
Sulfate	7.30		7.374		mg/L		1	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 460-387370/1-A ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/29/16 07:58	09/02/16 03:20	2
Arsenic	0.64	U	2.0	0.64	ug/L		08/29/16 07:58	09/02/16 03:20	2
Barium	1.2	U	4.0	1.2	ug/L		08/29/16 07:58	09/02/16 03:20	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/29/16 07:58	09/02/16 03:20	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/29/16 07:58	09/02/16 03:20	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/29/16 07:58	09/02/16 03:20	2
Chromium	1.3	U	4.0	1.3	ug/L		08/29/16 07:58	09/02/16 03:20	2
Copper	1.4	U	4.0	1.4	ug/L		08/29/16 07:58	09/02/16 03:20	2
Manganese	2.5	U	8.0	2.5	ug/L		08/29/16 07:58	09/02/16 03:20	2
Nickel	1.4	U	4.0	1.4	ug/L		08/29/16 07:58	09/02/16 03:20	2
Lead	0.38	U	1.2	0.38	ug/L		08/29/16 07:58	09/02/16 03:20	2
Antimony	0.62	U	2.0	0.62	ug/L		08/29/16 07:58	09/02/16 03:20	2
Selenium	0.73	U	10.0	0.73	ug/L		08/29/16 07:58	09/02/16 03:20	2
Vanadium	1.9	U	4.0	1.9	ug/L		08/29/16 07:58	09/02/16 03:20	2
Zinc	7.0	U	16.0	7.0	ug/L		08/29/16 07:58	09/02/16 03:20	2
Aluminum	18.2	U	40.0	18.2	ug/L		08/29/16 07:58	09/02/16 03:20	2
Sodium	69.0	U	200	69.0	ug/L		08/29/16 07:58	09/02/16 03:20	2
Magnesium	63.6	U	200	63.6	ug/L		08/29/16 07:58	09/02/16 03:20	2
Potassium	91.4	U	200	91.4	ug/L		08/29/16 07:58	09/02/16 03:20	2
Calcium	60.5	U	200	60.5	ug/L		08/29/16 07:58	09/02/16 03:20	2
Iron	42.4	U	120	42.4	ug/L		08/29/16 07:58	09/02/16 03:20	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-387370/1-A ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	0.26	U	0.80	0.26	ug/L		08/29/16 07:58	09/02/16 03:20	2

Lab Sample ID: LCS 460-387370/2-A ^2
Matrix: Water
Analysis Batch: 388143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	20.48		ug/L		82	80 - 120

Lab Sample ID: LCS 460-387370/2-A ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	48.93		ug/L		98	80 - 120
Barium	50.0	53.44		ug/L		107	80 - 120
Beryllium	25.0	27.19		ug/L		109	80 - 120
Cadmium	25.0	24.69		ug/L		99	80 - 120
Cobalt	25.0	24.50		ug/L		98	80 - 120
Chromium	50.0	50.78		ug/L		102	80 - 120
Copper	50.0	49.98		ug/L		100	80 - 120
Manganese	250	263.4		ug/L		105	80 - 120
Nickel	50.0	49.90		ug/L		100	80 - 120
Lead	25.0	26.23		ug/L		105	80 - 120
Antimony	25.0	25.32		ug/L		101	80 - 120
Selenium	50.0	48.15		ug/L		96	80 - 120
Vanadium	50.0	49.07		ug/L		98	80 - 120
Zinc	250	250.1		ug/L		100	80 - 120
Aluminum	2500	2386		ug/L		95	80 - 120
Sodium	2500	2421		ug/L		97	80 - 120
Magnesium	2500	2417		ug/L		97	80 - 120
Potassium	2500	2535		ug/L		101	80 - 120
Calcium	2500	2643		ug/L		106	80 - 120
Iron	2500	2576		ug/L		103	80 - 120
Thallium	20.0	19.96		ug/L		100	80 - 120

Lab Sample ID: 460-119005-W-12-D MS ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.3	U	25.0	19.15		ug/L		77	75 - 125
Arsenic	0.64	U	50.0	46.43		ug/L		93	75 - 125
Barium	125		50.0	174.9		ug/L		99	75 - 125
Beryllium	0.24	U	25.0	26.87		ug/L		107	75 - 125
Cadmium	0.71	U	25.0	24.27		ug/L		97	75 - 125
Cobalt	1.3	U	25.0	24.46		ug/L		98	75 - 125
Chromium	1.3	U	50.0	49.73		ug/L		99	75 - 125
Copper	1.4	U	50.0	48.28		ug/L		97	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119005-W-12-D MS ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	253		250	499.3		ug/L		98	75 - 125
Nickel	1.6	J	50.0	50.11		ug/L		97	75 - 125
Lead	0.38	U	25.0	26.12		ug/L		104	75 - 125
Antimony	0.62	U	25.0	25.91		ug/L		104	75 - 125
Selenium	0.77	J	50.0	45.44		ug/L		89	75 - 125
Vanadium	1.9	U	50.0	49.39		ug/L		99	75 - 125
Zinc	7.0	U	250	247.5		ug/L		99	75 - 125
Aluminum	33.4	J	2500	2357		ug/L		93	75 - 125
Sodium	140000		2500	139200	4	ug/L		-43	75 - 125
Magnesium	6120		2500	8391		ug/L		91	75 - 125
Potassium	2790		2500	5149		ug/L		94	75 - 125
Calcium	44600		2500	46120	4	ug/L		60	75 - 125
Iron	42.4	U	2500	2517		ug/L		101	75 - 125
Thallium	0.26	U	20.0	20.12		ug/L		101	75 - 125

Lab Sample ID: 460-119005-W-12-C DU ^2
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 387370

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.3	U	1.3	U	ug/L		NC	20
Arsenic	0.64	U	0.64	U	ug/L		NC	20
Barium	125		123.1		ug/L		2	20
Beryllium	0.24	U	0.24	U	ug/L		NC	20
Cadmium	0.71	U	0.71	U	ug/L		NC	20
Cobalt	1.3	U	1.3	U	ug/L		NC	20
Chromium	1.3	U	1.3	U	ug/L		NC	20
Copper	1.4	U	1.4	U	ug/L		NC	20
Manganese	253		251.0		ug/L		0.8	20
Nickel	1.6	J	1.58	J	ug/L		0.5	20
Lead	0.38	U	0.38	U	ug/L		NC	20
Antimony	0.62	U	0.62	U	ug/L		NC	20
Selenium	0.77	J	0.744	J	ug/L		3	20
Vanadium	1.9	U	1.9	U	ug/L		NC	20
Zinc	7.0	U	7.0	U	ug/L		NC	20
Aluminum	33.4	J	34.80	J	ug/L		4	20
Sodium	140000		139000		ug/L		0.9	20
Magnesium	6120		6038		ug/L		1	20
Potassium	2790		2761		ug/L		1	20
Calcium	44600		44120		ug/L		1	20
Iron	42.4	U	44.33	J	ug/L		NC	20
Thallium	0.26	U	0.26	U	ug/L		NC	20

Lab Sample ID: MB 460-387371/1-A ^2
Matrix: Water
Analysis Batch: 388832

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387371

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/29/16 07:59	09/04/16 06:33	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-387371/1-A ^2
Matrix: Water
Analysis Batch: 388832

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387371

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.64	U	2.0	0.64	ug/L		08/29/16 07:59	09/04/16 06:33	2
Barium	1.2	U	4.0	1.2	ug/L		08/29/16 07:59	09/04/16 06:33	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/29/16 07:59	09/04/16 06:33	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/29/16 07:59	09/04/16 06:33	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/29/16 07:59	09/04/16 06:33	2
Chromium	1.3	U	4.0	1.3	ug/L		08/29/16 07:59	09/04/16 06:33	2
Copper	1.4	U	4.0	1.4	ug/L		08/29/16 07:59	09/04/16 06:33	2
Manganese	2.5	U	8.0	2.5	ug/L		08/29/16 07:59	09/04/16 06:33	2
Nickel	1.4	U	4.0	1.4	ug/L		08/29/16 07:59	09/04/16 06:33	2
Lead	0.38	U	1.2	0.38	ug/L		08/29/16 07:59	09/04/16 06:33	2
Antimony	0.62	U	2.0	0.62	ug/L		08/29/16 07:59	09/04/16 06:33	2
Selenium	0.73	U	10.0	0.73	ug/L		08/29/16 07:59	09/04/16 06:33	2
Vanadium	1.9	U	4.0	1.9	ug/L		08/29/16 07:59	09/04/16 06:33	2
Zinc	7.0	U	16.0	7.0	ug/L		08/29/16 07:59	09/04/16 06:33	2
Sodium	69.0	U	200	69.0	ug/L		08/29/16 07:59	09/04/16 06:33	2
Magnesium	63.6	U	200	63.6	ug/L		08/29/16 07:59	09/04/16 06:33	2
Potassium	91.4	U	200	91.4	ug/L		08/29/16 07:59	09/04/16 06:33	2
Calcium	65.14	J	200	60.5	ug/L		08/29/16 07:59	09/04/16 06:33	2
Thallium	0.26	U	0.80	0.26	ug/L		08/29/16 07:59	09/04/16 06:33	2

Lab Sample ID: MB 460-387371/1-A ^2
Matrix: Water
Analysis Batch: 389269

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387371

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	18.2	U	40.0	18.2	ug/L		08/29/16 07:59	09/08/16 10:06	2
Iron	42.4	U	120	42.4	ug/L		08/29/16 07:59	09/08/16 10:06	2

Lab Sample ID: LCS 460-387371/2-A ^2
Matrix: Water
Analysis Batch: 388832

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387371

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	20.39		ug/L		82	80 - 120
Arsenic	50.0	51.93		ug/L		104	80 - 120
Barium	50.0	52.73		ug/L		105	80 - 120
Beryllium	25.0	27.94		ug/L		112	80 - 120
Cadmium	25.0	26.16		ug/L		105	80 - 120
Cobalt	25.0	25.60		ug/L		102	80 - 120
Chromium	50.0	52.41		ug/L		105	80 - 120
Copper	50.0	51.18		ug/L		102	80 - 120
Manganese	250	269.1		ug/L		108	80 - 120
Nickel	50.0	51.54		ug/L		103	80 - 120
Lead	25.0	26.78		ug/L		107	80 - 120
Antimony	25.0	26.01		ug/L		104	80 - 120
Selenium	50.0	51.69		ug/L		103	80 - 120
Vanadium	50.0	50.81		ug/L		102	80 - 120
Zinc	250	269.4		ug/L		108	80 - 120
Sodium	2500	2486		ug/L		99	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-387371/2-A ^2
Matrix: Water
Analysis Batch: 388832

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387371

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Magnesium	2500	2506		ug/L		100	80 - 120
Potassium	2500	2503		ug/L		100	80 - 120
Calcium	2500	2769		ug/L		111	80 - 120
Thallium	20.0	20.49		ug/L		102	80 - 120

Lab Sample ID: LCS 460-387371/2-A ^2
Matrix: Water
Analysis Batch: 389269

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387371

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	2500	2528		ug/L		101	80 - 120
Iron	2500	2599		ug/L		104	80 - 120

Lab Sample ID: 460-119092-6 MS
Matrix: Water
Analysis Batch: 388832

Client Sample ID: RW-3DD(175-180)-082316
Prep Type: Total/NA
Prep Batch: 387371

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.3	U	25.0	19.80		ug/L		79	75 - 125
Arsenic	17.2		50.0	65.47		ug/L		97	75 - 125
Barium	7.5		50.0	59.21		ug/L		103	75 - 125
Beryllium	0.24	U	25.0	27.65		ug/L		111	75 - 125
Cadmium	0.71	U	25.0	25.01		ug/L		100	75 - 125
Cobalt	1.3	U	25.0	25.30		ug/L		101	75 - 125
Chromium	1.3	U	50.0	51.68		ug/L		103	75 - 125
Copper	1.4	U	50.0	50.36		ug/L		101	75 - 125
Manganese	2.5	U	250	262.3		ug/L		105	75 - 125
Nickel	1.4	U	50.0	51.21		ug/L		102	75 - 125
Lead	0.38	U	25.0	26.97		ug/L		108	75 - 125
Antimony	0.62	U	25.0	26.73		ug/L		107	75 - 125
Selenium	0.73	U	50.0	47.68		ug/L		95	75 - 125
Vanadium	4.2		50.0	54.57		ug/L		101	75 - 125
Zinc	7.0	U	250	276.0		ug/L		110	75 - 125
Sodium	34400		2500	36380	4	ug/L		80	75 - 125
Magnesium	1640		2500	4107		ug/L		99	75 - 125
Potassium	8480		2500	11520		ug/L		122	75 - 125
Calcium	25400	B	2500	27440	4	ug/L		83	75 - 125
Thallium	0.26	U	20.0	20.76		ug/L		104	75 - 125

Lab Sample ID: 460-119092-6 MS
Matrix: Water
Analysis Batch: 389269

Client Sample ID: RW-3DD(175-180)-082316
Prep Type: Total/NA
Prep Batch: 387371

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	102		2500	2646		ug/L		102	75 - 125
Iron	42.4	U	2500	2613		ug/L		105	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119092-6 DU
Matrix: Water
Analysis Batch: 388832

Client Sample ID: RW-3DD(175-180)-082316
Prep Type: Total/NA
Prep Batch: 387371

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.3	U	1.3	U	ug/L		NC	20
Arsenic	17.2		16.94		ug/L		2	20
Barium	7.5		7.47		ug/L		0.9	20
Beryllium	0.24	U	0.24	U	ug/L		NC	20
Cadmium	0.71	U	0.71	U	ug/L		NC	20
Cobalt	1.3	U	1.3	U	ug/L		NC	20
Chromium	1.3	U	1.3	U	ug/L		NC	20
Copper	1.4	U	1.4	U	ug/L		NC	20
Manganese	2.5	U	2.5	U	ug/L		NC	20
Nickel	1.4	U	1.4	U	ug/L		NC	20
Lead	0.38	U	0.38	U	ug/L		NC	20
Antimony	0.62	U	0.642	J	ug/L		NC	20
Selenium	0.73	U	0.73	U	ug/L		NC	20
Vanadium	4.2		4.21		ug/L		1	20
Zinc	7.0	U	7.0	U	ug/L		NC	20
Sodium	34400		34310		ug/L		0.2	20
Magnesium	1640		1628		ug/L		0.8	20
Potassium	8480		8424		ug/L		0.7	20
Calcium	25400	B	25250		ug/L		0.5	20
Thallium	0.26	U	0.26	U	ug/L		NC	20

Lab Sample ID: 460-119092-6 DU
Matrix: Water
Analysis Batch: 389269

Client Sample ID: RW-3DD(175-180)-082316
Prep Type: Total/NA
Prep Batch: 387371

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Aluminum	102		100.8		ug/L		2	20
Iron	42.4	U	42.4	U	ug/L		NC	20

Lab Sample ID: LCS 460-388388/2-A
Matrix: Water
Analysis Batch: 388613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	5.00	5.09		ug/L		102	80 - 120
Arsenic	10.0	9.75		ug/L		98	80 - 120
Barium	10.0	10.45		ug/L		104	80 - 120
Beryllium	5.00	4.80		ug/L		96	80 - 120
Cadmium	5.00	4.61		ug/L		92	80 - 120
Cobalt	5.00	4.41		ug/L		88	80 - 120
Chromium	10.0	9.15		ug/L		91	80 - 120
Copper	10.0	8.88		ug/L		89	80 - 120
Manganese	50.0	48.48		ug/L		97	80 - 120
Nickel	10.0	8.99		ug/L		90	80 - 120
Lead	5.00	4.69		ug/L		94	80 - 120
Antimony	5.00	4.38		ug/L		88	80 - 120
Selenium	10.0	9.65		ug/L		97	80 - 120
Vanadium	10.0	9.02		ug/L		90	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-388388/2-A
Matrix: Water
Analysis Batch: 388613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	50.0	45.98		ug/L		92	80 - 120
Aluminum	500	473.1		ug/L		95	80 - 120
Magnesium	500	466.7		ug/L		93	80 - 120
Potassium	500	490.7		ug/L		98	80 - 120
Calcium	500	524.7		ug/L		105	80 - 120
Iron	500	484.8		ug/L		97	80 - 120
Thallium	4.00	3.78		ug/L		95	80 - 120

Lab Sample ID: LCS 460-388388/2-A
Matrix: Water
Analysis Batch: 388832

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	500	501.0		ug/L		100	80 - 120

Lab Sample ID: MB 460-388204/1-B
Matrix: Water
Analysis Batch: 388613

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 388388

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.64	U	1.0	0.64	ug/L		09/02/16 10:42	09/03/16 06:30	1
Arsenic	0.32	U	1.0	0.32	ug/L		09/02/16 10:42	09/03/16 06:30	1
Barium	0.61	U	2.0	0.61	ug/L		09/02/16 10:42	09/03/16 06:30	1
Beryllium	0.12	U	0.40	0.12	ug/L		09/02/16 10:42	09/03/16 06:30	1
Cadmium	0.36	U	1.0	0.36	ug/L		09/02/16 10:42	09/03/16 06:30	1
Cobalt	0.65	U	2.0	0.65	ug/L		09/02/16 10:42	09/03/16 06:30	1
Chromium	0.66	U	2.0	0.66	ug/L		09/02/16 10:42	09/03/16 06:30	1
Copper	0.68	U	2.0	0.68	ug/L		09/02/16 10:42	09/03/16 06:30	1
Manganese	1.2	U	4.0	1.2	ug/L		09/02/16 10:42	09/03/16 06:30	1
Nickel	0.68	U	2.0	0.68	ug/L		09/02/16 10:42	09/03/16 06:30	1
Lead	0.19	U	0.60	0.19	ug/L		09/02/16 10:42	09/03/16 06:30	1
Antimony	0.31	U	1.0	0.31	ug/L		09/02/16 10:42	09/03/16 06:30	1
Selenium	0.37	U	5.0	0.37	ug/L		09/02/16 10:42	09/03/16 06:30	1
Vanadium	0.95	U	2.0	0.95	ug/L		09/02/16 10:42	09/03/16 06:30	1
Zinc	3.5	U	8.0	3.5	ug/L		09/02/16 10:42	09/03/16 06:30	1
Aluminum	9.1	U	20.0	9.1	ug/L		09/02/16 10:42	09/03/16 06:30	1
Magnesium	31.8	U	100	31.8	ug/L		09/02/16 10:42	09/03/16 06:30	1
Potassium	45.7	U	100	45.7	ug/L		09/02/16 10:42	09/03/16 06:30	1
Calcium	30.3	U	100	30.3	ug/L		09/02/16 10:42	09/03/16 06:30	1
Iron	21.2	U	60.0	21.2	ug/L		09/02/16 10:42	09/03/16 06:30	1
Thallium	0.13	U	0.40	0.13	ug/L		09/02/16 10:42	09/03/16 06:30	1

Lab Sample ID: MB 460-388204/1-B
Matrix: Water
Analysis Batch: 388832

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 388388

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	34.5	U	100	34.5	ug/L		09/02/16 10:42	09/03/16 18:05	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119092-1 MS
Matrix: Water
Analysis Batch: 388613

Client Sample ID: RW-11D(262-267)-082316
Prep Type: Dissolved
Prep Batch: 388388

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.3	U F1	10.0	4.91	F1	ug/L		49	75 - 125
Arsenic	0.92	J	20.0	19.01		ug/L		90	75 - 125
Barium	238		20.0	253.8	4	ug/L		79	75 - 125
Beryllium	0.24	U	10.0	9.20		ug/L		92	75 - 125
Cadmium	0.71	U	10.0	8.64		ug/L		86	75 - 125
Cobalt	1.3	U	10.0	7.84		ug/L		78	75 - 125
Chromium	1.3	U	20.0	16.39		ug/L		82	75 - 125
Copper	1.4	U	20.0	15.59		ug/L		78	75 - 125
Manganese	2.5	U	100	86.96		ug/L		87	75 - 125
Nickel	9.4		20.0	24.43		ug/L		75	75 - 125
Lead	0.38	U	10.0	9.07		ug/L		91	75 - 125
Antimony	0.62	U F1	10.0	6.69	F1	ug/L		67	75 - 125
Selenium	1.4	J F1	20.0	15.04	F1	ug/L		68	75 - 125
Vanadium	1.9	U	20.0	17.15		ug/L		86	75 - 125
Zinc	7.0	U	100	82.62		ug/L		83	75 - 125
Aluminum	8170		1000	9157	4	ug/L		99	75 - 125
Magnesium	63.6	U	1000	844.3		ug/L		84	75 - 125
Potassium	51300		1000	52640	4	ug/L		130	75 - 125
Calcium	183000		1000	184500	4	ug/L		167	75 - 125
Iron	42.4	U	1000	844.6		ug/L		84	75 - 125
Thallium	0.26	U	8.00	7.44		ug/L		93	75 - 125

Lab Sample ID: 460-119092-1 MS
Matrix: Water
Analysis Batch: 388832

Client Sample ID: RW-11D(262-267)-082316
Prep Type: Dissolved
Prep Batch: 388388

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	187000		1000	190900	4	ug/L		418	75 - 125

Lab Sample ID: 460-119092-1 DU
Matrix: Water
Analysis Batch: 388613

Client Sample ID: RW-11D(262-267)-082316
Prep Type: Dissolved
Prep Batch: 388388

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.3	U F1	1.3	U	ug/L		NC	20
Arsenic	0.92	J	0.942	J	ug/L		3	20
Barium	238		235.2		ug/L		1	20
Beryllium	0.24	U	0.24	U	ug/L		NC	20
Cadmium	0.71	U	0.71	U	ug/L		NC	20
Cobalt	1.3	U	1.3	U	ug/L		NC	20
Chromium	1.3	U	1.3	U	ug/L		NC	20
Copper	1.4	U	1.4	U	ug/L		NC	20
Manganese	2.5	U	2.5	U	ug/L		NC	20
Nickel	9.4		9.25		ug/L		1	20
Lead	0.38	U	0.38	U	ug/L		NC	20
Antimony	0.62	U F1	0.62	U	ug/L		NC	20
Selenium	1.4	J F1	1.47	J	ug/L		2	20
Vanadium	1.9	U	1.9	U	ug/L		NC	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119092-1 DU
Matrix: Water
Analysis Batch: 388613

Client Sample ID: RW-11D(262-267)-082316
Prep Type: Dissolved
Prep Batch: 388388

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Zinc	7.0	U		7.0	U	ug/L				NC	20
Aluminum	8170			8120		ug/L				0.6	20
Magnesium	63.6	U		63.6	U	ug/L				NC	20
Potassium	51300			51510		ug/L				0.3	20
Calcium	183000			181800		ug/L				0.6	20
Iron	42.4	U		42.4	U	ug/L				NC	20
Thallium	0.26	U		0.26	U	ug/L				NC	20

Lab Sample ID: 460-119092-1 DU
Matrix: Water
Analysis Batch: 388832

Client Sample ID: RW-11D(262-267)-082316
Prep Type: Dissolved
Prep Batch: 388388

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sodium	187000			191500		ug/L				3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-387413/1-A
Matrix: Water
Analysis Batch: 387486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387413

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/29/16 12:16	08/29/16 13:48	1

Lab Sample ID: LCS 460-387413/2-A
Matrix: Water
Analysis Batch: 387486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387413

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			1.00	0.895		ug/L		89	80 - 120		

Lab Sample ID: 460-119092-5 MS
Matrix: Water
Analysis Batch: 387486

Client Sample ID: RW-11S(236-241)-082316
Prep Type: Total/NA
Prep Batch: 387413

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.49		1.00	1.37		ug/L		88	75 - 125		

Lab Sample ID: 460-119092-5 DU
Matrix: Water
Analysis Batch: 387486

Client Sample ID: RW-11S(236-241)-082316
Prep Type: Total/NA
Prep Batch: 387413

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Mercury	0.49			0.467		ug/L				4	20

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 460-388137/2-A
Matrix: Water
Analysis Batch: 388212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388137

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	1.11		ug/L		111	80 - 120

Lab Sample ID: MB 460-387697/1-B
Matrix: Water
Analysis Batch: 388212

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 388137

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 15:29	1

Lab Sample ID: 460-119177-H-5-H MS
Matrix: Water
Analysis Batch: 388212

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 388137

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.17	U	1.00	1.12		ug/L		112	75 - 125

Lab Sample ID: 460-119177-H-5-G DU
Matrix: Water
Analysis Batch: 388212

Client Sample ID: Duplicate
Prep Type: Dissolved
Prep Batch: 388137

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.17	U	0.17	U	ug/L		NC	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 460-388799/1-A
Matrix: Water
Analysis Batch: 388866

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388799

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:49	09/06/16 14:44	1

Lab Sample ID: HLCS 460-388799/3-A
Matrix: Water
Analysis Batch: 388866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388799

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.200	0.196		mg/L		98	80 - 120

Lab Sample ID: LLCS 460-388799/2-A
Matrix: Water
Analysis Batch: 388866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388799

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.104		mg/L		104	80 - 120

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: 460-119092-3 MS
Matrix: Water
Analysis Batch: 388866

Client Sample ID: PMP-AS-50-082316
Prep Type: Total/NA
Prep Batch: 388799

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0020	U F1	0.200	0.169		mg/L		85	75 - 125

Lab Sample ID: 460-119092-3 MSD
Matrix: Water
Analysis Batch: 388866

Client Sample ID: PMP-AS-50-082316
Prep Type: Total/NA
Prep Batch: 388799

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0020	U F1	0.200	0.145	F1	mg/L		73	75 - 125	15	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 460-388903/1
Matrix: Water
Analysis Batch: 388903

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/06/16 17:00	1
Alkalinity	5.0	U	5.0	5.0	mg/L			09/06/16 17:00	1

Lab Sample ID: LCSSRM 460-388903/2
Matrix: Water
Analysis Batch: 388903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	44.1	44.22		mg/L		100.3	90.5 - 107.9

Lab Sample ID: 460-119092-1 DU
Matrix: Water
Analysis Batch: 388903

Client Sample ID: RW-11D(262-267)-082316
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	10.0	U	10.0	U	mg/L		NC	17
Alkalinity	900		898.5		mg/L		0.2	17

GC/MS VOA

Analysis Batch: 386844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Total/NA	Water	8260C	
460-119092-2	PMP-AS-180-082316	Total/NA	Water	8260C	
460-119092-3	PMP-AS-50-082316	Total/NA	Water	8260C	
460-119092-4	PMP-AS-230-082316	Total/NA	Water	8260C	
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	8260C	
460-119092-6	RW-3DD(175-180)-082316	Total/NA	Water	8260C	
460-119092-7	RW-3DS(155-160)-082316	Total/NA	Water	8260C	
460-119092-8	TB-06-082316	Total/NA	Water	8260C	
MB 460-386844/7	Method Blank	Total/NA	Water	8260C	
LCS 460-386844/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 460-386844/4	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 387501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-2	PMP-AS-180-082316	Total/NA	Water	8260C SIM	
460-119092-3	PMP-AS-50-082316	Total/NA	Water	8260C SIM	
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	8260C SIM	
460-119092-6	RW-3DD(175-180)-082316	Total/NA	Water	8260C SIM	
460-119092-7	RW-3DS(155-160)-082316	Total/NA	Water	8260C SIM	
460-119092-8	TB-06-082316	Total/NA	Water	8260C SIM	
MB 460-387501/7	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-387501/3	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 460-387501/4	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 387597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Total/NA	Water	8260C SIM	
460-119092-4	PMP-AS-230-082316	Total/NA	Water	8260C SIM	
MB 460-387597/8	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-387597/4	Lab Control Sample	Total/NA	Water	8260C SIM	
460-119291-B-4 MS	Matrix Spike	Total/NA	Water	8260C SIM	
460-119291-B-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C SIM	

GC/MS Semi VOA

Prep Batch: 387196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Total/NA	Water	3510C	
460-119092-2	PMP-AS-180-082316	Total/NA	Water	3510C	
460-119092-3	PMP-AS-50-082316	Total/NA	Water	3510C	
460-119092-4	PMP-AS-230-082316	Total/NA	Water	3510C	
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	3510C	
460-119092-7	RW-3DS(155-160)-082316	Total/NA	Water	3510C	
MB 460-387196/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-387196/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-387196/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-387196/6-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-387196/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 460-387196/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 387311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-6	RW-3DD(175-180)-082316	Total/NA	Water	3510C	
MB 460-387311/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-387311/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-387311/3-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-387311/4-A	Lab Control Sample	Total/NA	Water	3510C	
460-119215-E-1-A MS	Matrix Spike	Total/NA	Water	3510C	
460-119215-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 387551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-387311/1-A	Method Blank	Total/NA	Water	8270D	387311
LCS 460-387311/2-A	Lab Control Sample	Total/NA	Water	8270D	387311
LCS 460-387311/3-A	Lab Control Sample	Total/NA	Water	8270D	387311
460-119215-E-1-A MS	Matrix Spike	Total/NA	Water	8270D	387311
460-119215-E-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	8270D	387311

Analysis Batch: 387918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-387311/4-A	Lab Control Sample	Total/NA	Water	8270D SIM	387311

Analysis Batch: 388049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-6	RW-3DD(175-180)-082316	Total/NA	Water	8270D SIM	387311

Analysis Batch: 388052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-387311/1-A	Method Blank	Total/NA	Water	8270D SIM	387311

Analysis Batch: 388321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-6	RW-3DD(175-180)-082316	Total/NA	Water	8270D	387311

Analysis Batch: 388356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Total/NA	Water	8270D SIM	387196
460-119092-2	PMP-AS-180-082316	Total/NA	Water	8270D SIM	387196
460-119092-3	PMP-AS-50-082316	Total/NA	Water	8270D SIM	387196
460-119092-4	PMP-AS-230-082316	Total/NA	Water	8270D SIM	387196
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	8270D SIM	387196
460-119092-7	RW-3DS(155-160)-082316	Total/NA	Water	8270D SIM	387196
MB 460-387196/1-A	Method Blank	Total/NA	Water	8270D SIM	387196
LCS 460-387196/6-A	Lab Control Sample	Total/NA	Water	8270D SIM	387196

Analysis Batch: 388543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Total/NA	Water	8270D	387196
460-119092-2	PMP-AS-180-082316	Total/NA	Water	8270D	387196
460-119092-3	PMP-AS-50-082316	Total/NA	Water	8270D	387196
460-119092-4	PMP-AS-230-082316	Total/NA	Water	8270D	387196
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	8270D	387196
460-119092-7	RW-3DS(155-160)-082316	Total/NA	Water	8270D	387196

GC/MS Semi VOA (Continued)

Analysis Batch: 388543 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-387196/1-A	Method Blank	Total/NA	Water	8270D	387196
LCS 460-387196/2-A	Lab Control Sample	Total/NA	Water	8270D	387196
LCS 460-387196/4-A	Lab Control Sample	Total/NA	Water	8270D	387196
LCSD 460-387196/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	387196
LCSD 460-387196/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	387196

GC Semi VOA

Prep Batch: 386833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Total/NA	Water	3510C	
460-119092-2	PMP-AS-180-082316	Total/NA	Water	3510C	
460-119092-3	PMP-AS-50-082316	Total/NA	Water	3510C	
460-119092-4	PMP-AS-230-082316	Total/NA	Water	3510C	
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	3510C	
460-119092-6	RW-3DD(175-180)-082316	Total/NA	Water	3510C	
460-119092-7	RW-3DS(155-160)-082316	Total/NA	Water	3510C	
MB 460-386833/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-386833/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 460-386833/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 386921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Total/NA	Water	8082A	386833
460-119092-2	PMP-AS-180-082316	Total/NA	Water	8082A	386833
460-119092-3	PMP-AS-50-082316	Total/NA	Water	8082A	386833
460-119092-4	PMP-AS-230-082316	Total/NA	Water	8082A	386833
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	8082A	386833
460-119092-6	RW-3DD(175-180)-082316	Total/NA	Water	8082A	386833
460-119092-7	RW-3DS(155-160)-082316	Total/NA	Water	8082A	386833
MB 460-386833/1-A	Method Blank	Total/NA	Water	8082A	386833
LCS 460-386833/2-A	Lab Control Sample	Total/NA	Water	8082A	386833
LCSD 460-386833/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	386833

HPLC/IC

Analysis Batch: 388806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Total/NA	Water	9056A	
460-119092-1 - DL	RW-11D(262-267)-082316	Total/NA	Water	9056A	
460-119092-2	PMP-AS-180-082316	Total/NA	Water	9056A	
460-119092-2 - DL	PMP-AS-180-082316	Total/NA	Water	9056A	
460-119092-3	PMP-AS-50-082316	Total/NA	Water	9056A	
460-119092-4	PMP-AS-230-082316	Total/NA	Water	9056A	
460-119092-4 - DL	PMP-AS-230-082316	Total/NA	Water	9056A	
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	9056A	
460-119092-6 - DL	RW-3DD(175-180)-082316	Total/NA	Water	9056A	
460-119092-7 - DL	RW-3DS(155-160)-082316	Total/NA	Water	9056A	
MB 460-388806/3	Method Blank	Total/NA	Water	9056A	
LCS 460-388806/5	Lab Control Sample	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 388806 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 460-388806/6	Lab Control Sample Dup	Total/NA	Water	9056A	
460-119092-3 MS	PMP-AS-50-082316	Total/NA	Water	9056A	
460-119092-3 MSD	PMP-AS-50-082316	Total/NA	Water	9056A	
460-119092-3 DU	PMP-AS-50-082316	Total/NA	Water	9056A	

Metals

Prep Batch: 387370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Total/NA	Water	3010A	
460-119092-2	PMP-AS-180-082316	Total/NA	Water	3010A	
MB 460-387370/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-387370/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-119005-W-12-D MS ^2	Matrix Spike	Total/NA	Water	3010A	
460-119005-W-12-C DU ^2	Duplicate	Total/NA	Water	3010A	

Prep Batch: 387371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-3	PMP-AS-50-082316	Total/NA	Water	3010A	
460-119092-4	PMP-AS-230-082316	Total/NA	Water	3010A	
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	3010A	
460-119092-6	RW-3DD(175-180)-082316	Total/NA	Water	3010A	
460-119092-7	RW-3DS(155-160)-082316	Total/NA	Water	3010A	
MB 460-387371/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-387371/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-119092-6 MS	RW-3DD(175-180)-082316	Total/NA	Water	3010A	
460-119092-6 DU	RW-3DD(175-180)-082316	Total/NA	Water	3010A	

Prep Batch: 387413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Total/NA	Water	7470A	
460-119092-2	PMP-AS-180-082316	Total/NA	Water	7470A	
460-119092-3	PMP-AS-50-082316	Total/NA	Water	7470A	
460-119092-4	PMP-AS-230-082316	Total/NA	Water	7470A	
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	7470A	
460-119092-6	RW-3DD(175-180)-082316	Total/NA	Water	7470A	
460-119092-7	RW-3DS(155-160)-082316	Total/NA	Water	7470A	
MB 460-387413/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-387413/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-119092-5 MS	RW-11S(236-241)-082316	Total/NA	Water	7470A	
460-119092-5 DU	RW-11S(236-241)-082316	Total/NA	Water	7470A	

Analysis Batch: 387486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Total/NA	Water	7470A	387413
460-119092-2	PMP-AS-180-082316	Total/NA	Water	7470A	387413
460-119092-3	PMP-AS-50-082316	Total/NA	Water	7470A	387413
460-119092-4	PMP-AS-230-082316	Total/NA	Water	7470A	387413
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	7470A	387413
460-119092-6	RW-3DD(175-180)-082316	Total/NA	Water	7470A	387413

Metals (Continued)

Analysis Batch: 387486 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-7	RW-3DS(155-160)-082316	Total/NA	Water	7470A	387413
MB 460-387413/1-A	Method Blank	Total/NA	Water	7470A	387413
LCS 460-387413/2-A	Lab Control Sample	Total/NA	Water	7470A	387413
460-119092-5 MS	RW-11S(236-241)-082316	Total/NA	Water	7470A	387413
460-119092-5 DU	RW-11S(236-241)-082316	Total/NA	Water	7470A	387413

Filtration Batch: 387697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Dissolved	Water	FILTRATION	
460-119092-2	PMP-AS-180-082316	Dissolved	Water	FILTRATION	
460-119092-3	PMP-AS-50-082316	Dissolved	Water	FILTRATION	
460-119092-4	PMP-AS-230-082316	Dissolved	Water	FILTRATION	
460-119092-5	RW-11S(236-241)-082316	Dissolved	Water	FILTRATION	
460-119092-6	RW-3DD(175-180)-082316	Dissolved	Water	FILTRATION	
460-119092-7	RW-3DS(155-160)-082316	Dissolved	Water	FILTRATION	
MB 460-387697/1-B	Method Blank	Dissolved	Water	FILTRATION	
460-119177-H-5-H MS	Matrix Spike	Dissolved	Water	FILTRATION	
460-119177-H-5-G DU	Duplicate	Dissolved	Water	FILTRATION	

Prep Batch: 388137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Dissolved	Water	7470A	387697
460-119092-2	PMP-AS-180-082316	Dissolved	Water	7470A	387697
460-119092-3	PMP-AS-50-082316	Dissolved	Water	7470A	387697
460-119092-4	PMP-AS-230-082316	Dissolved	Water	7470A	387697
460-119092-5	RW-11S(236-241)-082316	Dissolved	Water	7470A	387697
460-119092-6	RW-3DD(175-180)-082316	Dissolved	Water	7470A	387697
460-119092-7	RW-3DS(155-160)-082316	Dissolved	Water	7470A	387697
MB 460-387697/1-B	Method Blank	Dissolved	Water	7470A	387697
LCS 460-388137/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-119177-H-5-H MS	Matrix Spike	Dissolved	Water	7470A	387697
460-119177-H-5-G DU	Duplicate	Dissolved	Water	7470A	387697

Analysis Batch: 388143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-387370/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387370

Filtration Batch: 388204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Dissolved	Water	FILTRATION	
460-119092-2	PMP-AS-180-082316	Dissolved	Water	FILTRATION	
460-119092-3	PMP-AS-50-082316	Dissolved	Water	FILTRATION	
460-119092-4	PMP-AS-230-082316	Dissolved	Water	FILTRATION	
460-119092-5	RW-11S(236-241)-082316	Dissolved	Water	FILTRATION	
460-119092-6	RW-3DD(175-180)-082316	Dissolved	Water	FILTRATION	
460-119092-7	RW-3DS(155-160)-082316	Dissolved	Water	FILTRATION	
MB 460-388204/1-B	Method Blank	Dissolved	Water	FILTRATION	
460-119092-1 MS	RW-11D(262-267)-082316	Dissolved	Water	FILTRATION	
460-119092-1 DU	RW-11D(262-267)-082316	Dissolved	Water	FILTRATION	

Metals (Continued)

Analysis Batch: 388212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Dissolved	Water	7470A	388137
460-119092-2	PMP-AS-180-082316	Dissolved	Water	7470A	388137
460-119092-3	PMP-AS-50-082316	Dissolved	Water	7470A	388137
460-119092-4	PMP-AS-230-082316	Dissolved	Water	7470A	388137
460-119092-5	RW-11S(236-241)-082316	Dissolved	Water	7470A	388137
460-119092-6	RW-3DD(175-180)-082316	Dissolved	Water	7470A	388137
460-119092-7	RW-3DS(155-160)-082316	Dissolved	Water	7470A	388137
MB 460-387697/1-B	Method Blank	Dissolved	Water	7470A	388137
LCS 460-388137/2-A	Lab Control Sample	Total/NA	Water	7470A	388137
460-119177-H-5-H MS	Matrix Spike	Dissolved	Water	7470A	388137
460-119177-H-5-G DU	Duplicate	Dissolved	Water	7470A	388137

Analysis Batch: 388293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Total/NA	Water	6020A	387370
460-119092-2	PMP-AS-180-082316	Total/NA	Water	6020A	387370
460-119092-2	PMP-AS-180-082316	Total/NA	Water	6020A	387370
MB 460-387370/1-A ^2	Method Blank	Total/NA	Water	6020A	387370
LCS 460-387370/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387370
460-119005-W-12-D MS ^2	Matrix Spike	Total/NA	Water	6020A	387370
460-119005-W-12-C DU ^2	Duplicate	Total/NA	Water	6020A	387370

Prep Batch: 388388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Dissolved	Water	3010A	388204
460-119092-2	PMP-AS-180-082316	Dissolved	Water	3010A	388204
460-119092-3	PMP-AS-50-082316	Dissolved	Water	3010A	388204
460-119092-4	PMP-AS-230-082316	Dissolved	Water	3010A	388204
460-119092-5	RW-11S(236-241)-082316	Dissolved	Water	3010A	388204
460-119092-6	RW-3DD(175-180)-082316	Dissolved	Water	3010A	388204
460-119092-7	RW-3DS(155-160)-082316	Dissolved	Water	3010A	388204
MB 460-388204/1-B	Method Blank	Dissolved	Water	3010A	388204
LCS 460-388388/2-A	Lab Control Sample	Total/NA	Water	3010A	
460-119092-1 MS	RW-11D(262-267)-082316	Dissolved	Water	3010A	388204
460-119092-1 DU	RW-11D(262-267)-082316	Dissolved	Water	3010A	388204

Analysis Batch: 388613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Dissolved	Water	6020A	388388
460-119092-2	PMP-AS-180-082316	Dissolved	Water	6020A	388388
460-119092-3	PMP-AS-50-082316	Dissolved	Water	6020A	388388
460-119092-4	PMP-AS-230-082316	Dissolved	Water	6020A	388388
460-119092-5	RW-11S(236-241)-082316	Dissolved	Water	6020A	388388
460-119092-6	RW-3DD(175-180)-082316	Dissolved	Water	6020A	388388
460-119092-7	RW-3DS(155-160)-082316	Dissolved	Water	6020A	388388
MB 460-388204/1-B	Method Blank	Dissolved	Water	6020A	388388
LCS 460-388388/2-A	Lab Control Sample	Total/NA	Water	6020A	388388
460-119092-1 MS	RW-11D(262-267)-082316	Dissolved	Water	6020A	388388
460-119092-1 DU	RW-11D(262-267)-082316	Dissolved	Water	6020A	388388

Metals (Continued)

Analysis Batch: 388832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Dissolved	Water	6020A	388388
460-119092-2	PMP-AS-180-082316	Dissolved	Water	6020A	388388
460-119092-2	PMP-AS-180-082316	Dissolved	Water	6020A	388388
460-119092-3	PMP-AS-50-082316	Dissolved	Water	6020A	388388
460-119092-3	PMP-AS-50-082316	Total/NA	Water	6020A	387371
460-119092-4	PMP-AS-230-082316	Dissolved	Water	6020A	388388
460-119092-4	PMP-AS-230-082316	Total/NA	Water	6020A	387371
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	6020A	387371
460-119092-6	RW-3DD(175-180)-082316	Total/NA	Water	6020A	387371
460-119092-7	RW-3DS(155-160)-082316	Total/NA	Water	6020A	387371
MB 460-387371/1-A ^2	Method Blank	Total/NA	Water	6020A	387371
MB 460-388204/1-B	Method Blank	Dissolved	Water	6020A	388388
LCS 460-387371/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387371
LCS 460-388388/2-A	Lab Control Sample	Total/NA	Water	6020A	388388
460-119092-1 MS	RW-11D(262-267)-082316	Dissolved	Water	6020A	388388
460-119092-6 MS	RW-3DD(175-180)-082316	Total/NA	Water	6020A	387371
460-119092-1 DU	RW-11D(262-267)-082316	Dissolved	Water	6020A	388388
460-119092-6 DU	RW-3DD(175-180)-082316	Total/NA	Water	6020A	387371

Analysis Batch: 389269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-3	PMP-AS-50-082316	Total/NA	Water	6020A	387371
460-119092-4	PMP-AS-230-082316	Total/NA	Water	6020A	387371
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	6020A	387371
460-119092-6	RW-3DD(175-180)-082316	Total/NA	Water	6020A	387371
460-119092-7	RW-3DS(155-160)-082316	Total/NA	Water	6020A	387371
MB 460-387371/1-A ^2	Method Blank	Total/NA	Water	6020A	387371
LCS 460-387371/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	387371
460-119092-6 MS	RW-3DD(175-180)-082316	Total/NA	Water	6020A	387371
460-119092-6 DU	RW-3DD(175-180)-082316	Total/NA	Water	6020A	387371

General Chemistry

Prep Batch: 388799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Total/NA	Water	9012B	
460-119092-2	PMP-AS-180-082316	Total/NA	Water	9012B	
460-119092-3	PMP-AS-50-082316	Total/NA	Water	9012B	
460-119092-4	PMP-AS-230-082316	Total/NA	Water	9012B	
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	9012B	
460-119092-6	RW-3DD(175-180)-082316	Total/NA	Water	9012B	
460-119092-7	RW-3DS(155-160)-082316	Total/NA	Water	9012B	
MB 460-388799/1-A	Method Blank	Total/NA	Water	9012B	
HLCS 460-388799/3-A	Lab Control Sample	Total/NA	Water	9012B	
LLCS 460-388799/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-119092-3 MS	PMP-AS-50-082316	Total/NA	Water	9012B	
460-119092-3 MSD	PMP-AS-50-082316	Total/NA	Water	9012B	

General Chemistry (Continued)

Analysis Batch: 388866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Total/NA	Water	9012B	388799
460-119092-2	PMP-AS-180-082316	Total/NA	Water	9012B	388799
460-119092-3	PMP-AS-50-082316	Total/NA	Water	9012B	388799
460-119092-4	PMP-AS-230-082316	Total/NA	Water	9012B	388799
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	9012B	388799
460-119092-6	RW-3DD(175-180)-082316	Total/NA	Water	9012B	388799
460-119092-7	RW-3DS(155-160)-082316	Total/NA	Water	9012B	388799
MB 460-388799/1-A	Method Blank	Total/NA	Water	9012B	388799
HLCS 460-388799/3-A	Lab Control Sample	Total/NA	Water	9012B	388799
LLCS 460-388799/2-A	Lab Control Sample	Total/NA	Water	9012B	388799
460-119092-3 MS	PMP-AS-50-082316	Total/NA	Water	9012B	388799
460-119092-3 MSD	PMP-AS-50-082316	Total/NA	Water	9012B	388799

Analysis Batch: 388903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119092-1	RW-11D(262-267)-082316	Total/NA	Water	SM 2320B	
460-119092-2	PMP-AS-180-082316	Total/NA	Water	SM 2320B	
460-119092-3	PMP-AS-50-082316	Total/NA	Water	SM 2320B	
460-119092-4	PMP-AS-230-082316	Total/NA	Water	SM 2320B	
460-119092-5	RW-11S(236-241)-082316	Total/NA	Water	SM 2320B	
460-119092-6	RW-3DD(175-180)-082316	Total/NA	Water	SM 2320B	
460-119092-7	RW-3DS(155-160)-082316	Total/NA	Water	SM 2320B	
MB 460-388903/1	Method Blank	Total/NA	Water	SM 2320B	
LCSSRM 460-388903/2	Lab Control Sample	Total/NA	Water	SM 2320B	
460-119092-1 DU	RW-11D(262-267)-082316	Total/NA	Water	SM 2320B	

Client Sample ID: RW-11D(262-267)-082316

Lab Sample ID: 460-119092-1

Date Collected: 08/23/16 09:05

Matrix: Water

Date Received: 08/24/16 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386844	08/26/16 04:30	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	387597	08/30/16 20:13	MZS	TAL EDI
Total/NA	Prep	3510C			387196	08/27/16 13:07	MBE	TAL EDI
Total/NA	Analysis	8270D		1	388543	09/03/16 08:08	CAZ	TAL EDI
Total/NA	Prep	3510C			387196	08/27/16 13:07	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	388356	09/02/16 15:44	MMC	TAL EDI
Total/NA	Prep	3510C			386833	08/25/16 19:20	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386921	08/26/16 10:35	JHP	TAL EDI
Total/NA	Analysis	9056A		1	388806	09/06/16 13:42	CDC	TAL EDI
Total/NA	Analysis	9056A	DL	20	388806	09/06/16 15:50	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			388204	09/01/16 15:50	MDC	TAL EDI
Dissolved	Prep	3010A			388388	09/02/16 10:43	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388613	09/03/16 06:53	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			388204	09/01/16 15:50	MDC	TAL EDI
Dissolved	Prep	3010A			388388	09/02/16 10:43	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388832	09/03/16 18:29	VAD	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 10:37	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 06:32	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 15:47	RBS	TAL EDI
Total/NA	Prep	7470A			387413	08/29/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387486	08/29/16 14:12	RBS	TAL EDI
Total/NA	Prep	9012B			388799	09/06/16 09:49	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388866	09/06/16 14:59	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388903	09/06/16 17:00	HTV	TAL EDI

Client Sample ID: PMP-AS-180-082316

Lab Sample ID: 460-119092-2

Date Collected: 08/23/16 10:25

Matrix: Water

Date Received: 08/24/16 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386844	08/26/16 04:57	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	387501	08/30/16 02:49	DAS	TAL EDI
Total/NA	Prep	3510C			387196	08/27/16 13:07	MBE	TAL EDI
Total/NA	Analysis	8270D		1	388543	09/03/16 08:28	CAZ	TAL EDI
Total/NA	Prep	3510C			387196	08/27/16 13:07	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	388356	09/02/16 16:13	MMC	TAL EDI
Total/NA	Prep	3510C			386833	08/25/16 19:20	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386921	08/26/16 10:53	JHP	TAL EDI
Total/NA	Analysis	9056A		1	388806	09/06/16 14:01	CDC	TAL EDI
Total/NA	Analysis	9056A	DL	2	388806	09/06/16 18:24	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			388204	09/01/16 15:50	MDC	TAL EDI

Client Sample ID: PMP-AS-180-082316

Lab Sample ID: 460-119092-2

Date Collected: 08/23/16 10:25

Matrix: Water

Date Received: 08/24/16 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3010A			388388	09/02/16 10:43	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388613	09/03/16 07:05	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			388204	09/01/16 15:50	MDC	TAL EDI
Dissolved	Prep	3010A			388388	09/02/16 10:43	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388832	09/03/16 18:40	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			388204	09/01/16 15:50	MDC	TAL EDI
Dissolved	Prep	3010A			388388	09/02/16 10:43	MDC	TAL EDI
Dissolved	Analysis	6020A		5	388832	09/03/16 20:38	VAD	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 10:37	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388293	09/02/16 06:38	VAD	TAL EDI
Total/NA	Prep	3010A			387370	08/29/16 10:37	QZY	TAL EDI
Total/NA	Analysis	6020A		20	388293	09/02/16 06:44	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 15:49	RBS	TAL EDI
Total/NA	Prep	7470A			387413	08/29/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387486	08/29/16 14:14	RBS	TAL EDI
Total/NA	Prep	9012B			388799	09/06/16 09:49	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388866	09/06/16 15:00	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388903	09/06/16 17:00	HTV	TAL EDI

Client Sample ID: PMP-AS-50-082316

Lab Sample ID: 460-119092-3

Date Collected: 08/23/16 09:10

Matrix: Water

Date Received: 08/24/16 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386844	08/26/16 05:24	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	387501	08/30/16 03:14	DAS	TAL EDI
Total/NA	Prep	3510C			387196	08/27/16 13:07	MBE	TAL EDI
Total/NA	Analysis	8270D		1	388543	09/03/16 08:47	CAZ	TAL EDI
Total/NA	Prep	3510C			387196	08/27/16 13:07	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	388356	09/02/16 16:42	MMC	TAL EDI
Total/NA	Prep	3510C			386833	08/25/16 19:20	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386921	08/26/16 11:11	JHP	TAL EDI
Total/NA	Analysis	9056A		1	388806	09/06/16 14:19	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			388204	09/01/16 15:50	MDC	TAL EDI
Dissolved	Prep	3010A			388388	09/02/16 10:43	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388613	09/03/16 07:11	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			388204	09/01/16 15:50	MDC	TAL EDI
Dissolved	Prep	3010A			388388	09/02/16 10:43	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388832	09/03/16 18:46	VAD	TAL EDI
Total/NA	Prep	3010A			387371	08/29/16 07:59	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388832	09/04/16 07:37	VAD	TAL EDI
Total/NA	Prep	3010A			387371	08/29/16 07:59	QZY	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Client Sample ID: PMP-AS-50-082316

Date Collected: 08/23/16 09:10
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6020A		2	389269	09/08/16 10:59	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 15:51	RBS	TAL EDI
Total/NA	Prep	7470A			387413	08/29/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387486	08/29/16 14:15	RBS	TAL EDI
Total/NA	Prep	9012B			388799	09/06/16 09:49	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388866	09/06/16 15:01	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388903	09/06/16 17:00	HTV	TAL EDI

Client Sample ID: PMP-AS-230-082316

Date Collected: 08/23/16 13:25
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386844	08/26/16 05:51	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	387597	08/30/16 20:38	MZS	TAL EDI
Total/NA	Prep	3510C			387196	08/27/16 13:07	MBE	TAL EDI
Total/NA	Analysis	8270D		1	388543	09/03/16 09:07	CAZ	TAL EDI
Total/NA	Prep	3510C			387196	08/27/16 13:07	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	388356	09/02/16 17:11	MMC	TAL EDI
Total/NA	Prep	3510C			386833	08/25/16 19:20	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386921	08/26/16 11:29	JHP	TAL EDI
Total/NA	Analysis	9056A		1	388806	09/06/16 14:37	CDC	TAL EDI
Total/NA	Analysis	9056A	DL	10	388806	09/06/16 16:31	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			388204	09/01/16 15:50	MDC	TAL EDI
Dissolved	Prep	3010A			388388	09/02/16 10:43	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388613	09/03/16 07:23	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			388204	09/01/16 15:50	MDC	TAL EDI
Dissolved	Prep	3010A			388388	09/02/16 10:43	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388832	09/03/16 18:58	VAD	TAL EDI
Total/NA	Prep	3010A			387371	08/29/16 07:59	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388832	09/04/16 07:43	VAD	TAL EDI
Total/NA	Prep	3010A			387371	08/29/16 07:59	QZY	TAL EDI
Total/NA	Analysis	6020A		2	389269	09/08/16 11:22	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 15:53	RBS	TAL EDI
Total/NA	Prep	7470A			387413	08/29/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387486	08/29/16 14:17	RBS	TAL EDI
Total/NA	Prep	9012B			388799	09/06/16 09:49	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388866	09/06/16 15:03	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388903	09/06/16 17:00	HTV	TAL EDI

Client Sample ID: RW-11S(236-241)-082316

Lab Sample ID: 460-119092-5

Date Collected: 08/23/16 12:15

Matrix: Water

Date Received: 08/24/16 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386844	08/26/16 06:18	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	387501	08/30/16 02:24	DAS	TAL EDI
Total/NA	Prep	3510C			387196	08/27/16 13:07	MBE	TAL EDI
Total/NA	Analysis	8270D		1	388543	09/03/16 09:27	CAZ	TAL EDI
Total/NA	Prep	3510C			387196	08/27/16 13:07	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	388356	09/02/16 17:40	MMC	TAL EDI
Total/NA	Prep	3510C			386833	08/25/16 19:20	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386921	08/26/16 11:46	JHP	TAL EDI
Total/NA	Analysis	9056A		1	388806	09/06/16 14:56	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			388204	09/01/16 15:50	MDC	TAL EDI
Dissolved	Prep	3010A			388388	09/02/16 10:43	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388613	09/03/16 07:46	VAD	TAL EDI
Total/NA	Prep	3010A			387371	08/29/16 07:59	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388832	09/04/16 08:01	VAD	TAL EDI
Total/NA	Prep	3010A			387371	08/29/16 07:59	QZY	TAL EDI
Total/NA	Analysis	6020A		2	389269	09/08/16 11:33	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 15:59	RBS	TAL EDI
Total/NA	Prep	7470A			387413	08/29/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387486	08/29/16 13:51	RBS	TAL EDI
Total/NA	Prep	9012B			388799	09/06/16 09:49	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388866	09/06/16 15:07	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388903	09/06/16 17:00	HTV	TAL EDI

Client Sample ID: RW-3DD(175-180)-082316

Lab Sample ID: 460-119092-6

Date Collected: 08/23/16 13:25

Matrix: Water

Date Received: 08/24/16 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386844	08/26/16 06:45	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	387501	08/30/16 04:54	DAS	TAL EDI
Total/NA	Prep	3510C			387311	08/28/16 20:28	AFR	TAL EDI
Total/NA	Analysis	8270D		1	388321	09/02/16 14:46	BAW	TAL EDI
Total/NA	Prep	3510C			387311	08/28/16 20:28	AFR	TAL EDI
Total/NA	Analysis	8270D SIM		1	388049	09/01/16 13:57	MMC	TAL EDI
Total/NA	Prep	3510C			386833	08/25/16 19:20	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386921	08/26/16 12:04	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	10	388806	09/06/16 17:47	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			388204	09/01/16 15:50	MDC	TAL EDI
Dissolved	Prep	3010A			388388	09/02/16 10:43	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388613	09/03/16 07:52	VAD	TAL EDI
Total/NA	Prep	3010A			387371	08/29/16 07:59	QZY	TAL EDI

Client Sample ID: RW-3DD(175-180)-082316

Lab Sample ID: 460-119092-6

Date Collected: 08/23/16 13:25

Matrix: Water

Date Received: 08/24/16 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6020A		2	388832	09/04/16 07:26	VAD	TAL EDI
Total/NA	Prep	3010A			387371	08/29/16 07:59	QZY	TAL EDI
Total/NA	Analysis	6020A		2	389269	09/08/16 10:35	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 16:00	RBS	TAL EDI
Total/NA	Prep	7470A			387413	08/29/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387486	08/29/16 14:19	RBS	TAL EDI
Total/NA	Prep	9012B			388799	09/06/16 09:53	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388866	09/06/16 15:08	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388903	09/06/16 17:00	HTV	TAL EDI

Client Sample ID: RW-3DS(155-160)-082316

Lab Sample ID: 460-119092-7

Date Collected: 08/23/16 15:00

Matrix: Water

Date Received: 08/24/16 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386844	08/26/16 07:11	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	387501	08/30/16 05:19	DAS	TAL EDI
Total/NA	Prep	3510C			387196	08/27/16 13:07	MBE	TAL EDI
Total/NA	Analysis	8270D		1	388543	09/03/16 10:06	CAZ	TAL EDI
Total/NA	Prep	3510C			387196	08/27/16 13:07	MBE	TAL EDI
Total/NA	Analysis	8270D SIM		1	388356	09/02/16 18:09	MMC	TAL EDI
Total/NA	Prep	3510C			386833	08/25/16 19:20	RAR	TAL EDI
Total/NA	Analysis	8082A		1	386921	08/26/16 12:22	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	100	388806	09/06/16 18:06	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			388204	09/01/16 15:50	MDC	TAL EDI
Dissolved	Prep	3010A			388388	09/02/16 10:43	MDC	TAL EDI
Dissolved	Analysis	6020A		2	388613	09/03/16 08:03	VAD	TAL EDI
Total/NA	Prep	3010A			387371	08/29/16 07:59	QZY	TAL EDI
Total/NA	Analysis	6020A		2	388832	09/04/16 08:13	VAD	TAL EDI
Total/NA	Prep	3010A			387371	08/29/16 07:59	QZY	TAL EDI
Total/NA	Analysis	6020A		2	389269	09/08/16 11:39	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 16:02	RBS	TAL EDI
Total/NA	Prep	7470A			387413	08/29/16 12:16	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387486	08/29/16 14:21	RBS	TAL EDI
Total/NA	Prep	9012B			388799	09/06/16 09:53	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388866	09/06/16 15:09	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	388903	09/06/16 17:00	HTV	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Client Sample ID: TB-06-082316
Date Collected: 08/23/16 00:00
Date Received: 08/24/16 12:40

Lab Sample ID: 460-119092-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	386844	08/26/16 04:03	MZS	TAL EDI
Total/NA	Analysis	8260C SIM		1	387501	08/29/16 23:29	DAS	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Certification Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Laboratory: TestAmerica Edison

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New Jersey	NELAP	2	12028	06-30-17

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,4-Trichlorobenzene
8260C SIM		Water	1,2,3-Trichloropropane
8260C SIM		Water	1,2-Dibromo-3-Chloropropane
8260C SIM		Water	Ethylene Dibromide
8270D SIM	3510C	Water	Bis(2-chloroethyl)ether
9056A		Water	Chloride
9056A		Water	Sulfate

Method Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
9056A	Anions, Ion Chromatography	SW846	TAL EDI
6020A	Metals (ICP/MS)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
9012B	Cyanide, Total andor Amenable	SW846	TAL EDI
SM 2320B	Alkalinity	SM	TAL EDI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119092-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-119092-1	RW-11D(262-267)-082316	Water	08/23/16 09:05	08/24/16 12:40
460-119092-2	PMP-AS-180-082316	Water	08/23/16 10:25	08/24/16 12:40
460-119092-3	PMP-AS-50-082316	Water	08/23/16 09:10	08/24/16 12:40
460-119092-4	PMP-AS-230-082316	Water	08/23/16 13:25	08/24/16 12:40
460-119092-5	RW-11S(236-241)-082316	Water	08/23/16 12:15	08/24/16 12:40
460-119092-6	RW-3DD(175-180)-082316	Water	08/23/16 13:25	08/24/16 12:40
460-119092-7	RW-3DS(155-160)-082316	Water	08/23/16 15:00	08/24/16 12:40
460-119092-8	TB-06-082316	Water	08/23/16 00:00	08/24/16 12:40

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CHAIN OF CUSTODY / ANAL

460-119092 Chain of Custody

ham Road
Jersey 08817
549-3900 Fax: (732) 549-3679

Page 1 of 5

Name (for report and invoice) Tim Roeper	Samplers Name (Printed) Robert Lautenberg	Site/Project Identification Ford - Ringwood
Company Cornerstone Environmental Group	P. O. # 140802-015	State (Location of site): NJ: X NY: Other:
		Regulatory Program: DKQP:
Address 100 Crystal Run Rd, Suite 101	Analysis Turnaround Time: Standard X	
City Middletown State NY 10941	Rush Charges Authorized For: 2 Week / 1 Week / Other	
Phone 8456950200 Fax		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

LAB USE ONLY
Project No: 119077
Job No: ~~119025~~ KR 8/25/16

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOCs 8260B	TCL SVOCs 8270C	TAL Metals (Total & Filtered) - confirm	PLBS Alkalinity, Total as CaCO3 2320B	Chloride 300.0/9056	Sulfate 300.0/9056	Cyanide	Sample Numbers
RW-11D(262-267)-082316	8/23/16	09:05	GW	13	✓	✓	✓	✓	✓	✓	✓	-1
PMP-AS-180-082316	8/23/16	10:25	GW	13	✓	✓	✓	✓	✓	✓	✓	-2
PMP-AS-50-082316	8/23/16	09:10	GW	13	✓	✓	✓	✓	✓	✓	✓	-3
PMP-AS-230-082316	8/23/16	13:25	GW	13	✓	✓	✓	✓	✓	✓	✓	-4
RW-11S(236-241)-082316	8/23/16	12:15	GW	13	✓	✓	✓	✓	✓	✓	✓	-5
RW-3DD(175-180)-082316	8/23/16	13:25	GW	13	✓	✓	✓	✓	✓	✓	✓	-6
RW-3DS(155-160)-082316	8/23/16	15:00	GW	13	✓	✓	✓	✓	✓	✓	✓	-7
TB-06-082316	8/23/16	—	BW	4	✓							-8

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other _____, 7 = Other _____

Soil:
Water:

Special Instructions Do not report 1,4 Dioxane for VOCs + SVOCs

Water Metals Filtered (Yes/No)? No

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/24/16 845	1)	TAT
Relinquished by 2)	Company TAT	Date / Time 8/24/16 1240	Received by 2)	Company TA Edison
Relinquished by 3)	Company	Date / Time	Received by 3)	Company 8/24/16
Relinquished by 4)	Company	Date / Time	Received by 4)	Company 1240

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578) FR7- NOCS 08/09/02

9/9/2016

Job Number: 119092 ~~119025~~ KK 8/25/16

TestAmerica Edison
Receipt Temperature and pH Log

Page ____ of ____

Number of Coolers: 3 IR Gun # 7

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	0.8 °C	0.8 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	0.9 °C	0.9 °C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	0.2 °C	0.2 °C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or OAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
1				<2								>12			
2				<2								>12			
3				<2								>12			
4				<2								>12			
5				<2								>12			
6				<2								>12			
7				<2								>12			

If pH adjustments are required record the information below:

Sample No(s). adjusted: NA

Preservative Name/Conc.: NA Volume of Preservative used (ml): NA

Lot # of Preservative(s): NA Expiration Date: NA

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: _____ Date: 8/25/16

Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 460-119092-1

Login Number: 119092
List Number: 1
Creator: Rivera, Kenneth

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8°C, 0.9°C, 0.2°C, IR #7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-119177-1
Client Project/Site: FORD Ringwood Mines E203361

For:
Cornerstone Environmental Group, LLC
100 Crystal Run Road
Suite 101
Middletown, New York 10941

Attn: Tim Roeper

Authorized for release by:
9/12/2016 3:33:53 PM

Marie Meidhof, Project Manager II
(732)549-3900
marie.meidhof@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	This flag indicates the presumptive evidence of a compound.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 460-119177-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: Cornerstone Environmental Group, LLC

Project: FORD Ringwood Mines E203361

Report Number: 460-119177-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 8/25/2016 1:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 1.0º C, 1.2º C, 1.3º C and 1.8º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS DKQP AQUEOUS

Samples TB-07-082416 (460-119177-1), FB-04-082416 (460-119177-2), DUP-04-082416 (460-119177-3), RW-3-082416 (460-119177-4), RW-15S(110-120)-082416 (460-119177-5), RW-15D(127-137)-082416 (460-119177-6), RW-4(333-343)-082416 (460-119177-7), RW-4(393-403)-082416 (460-119177-8) and RW-4A(113-123)-082416 (460-119177-9) were analyzed for Volatile organic compounds DKQP Aqueous in accordance with EPA SW-846 Methods 8260C DKQP. The samples were analyzed on 08/29/2016.

The continuing calibration verification (CCV) associated with batch 460-387388 recovered above the upper control limit for Chlorobromomethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

The laboratory control sample (LCS) for analytical batch 460-387388 recovered outside control limits for the following analyte: Vinyl chloride. This analyte was not detected in the associated samples; therefore, the data have been reported. Vinyl chloride failed the recovery criteria low for LCS 460-387388/4.

Refer to the QC report for details.

No other difficulties were encountered during the Volatile organic compounds DKQP Aqueous analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) DKQP

Samples FB-04-082416 (460-119177-2), DUP-04-082416 (460-119177-3), RW-3-082416 (460-119177-4), RW-15S(110-120)-082416

Job ID: 460-119177-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

(460-119177-5), RW-15D(127-137)-082416 (460-119177-6), RW-4(333-343)-082416 (460-119177-7), RW-4(393-403)-082416 (460-119177-8) and RW-4A(113-123)-082416 (460-119177-9) were analyzed for Semivolatile organic compounds (GC/MS) DKQP in accordance with EPA SW-846 Method 8270D DKQP. The samples were prepared on 08/29/2016 and analyzed on 09/05/2016.

The continuing calibration verification (CCV) analyzed in batch 460-388683 was outside the method criteria for the following analyte(s): 2,4-Dinitrophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: RW-15S(110-120)-082416 (460-119177-5[MSD]). These results have been reported and qualified.

Surrogate recovery for the following matrix spike duplicate (MSD) was outside control limits: RW-15S(110-120)-082416 (460-119177-5[MSD]). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. Matrix spikes (MS) and parent sample confirms matrix interference.

2-Nitrophenol failed the recovery criteria low for the MS of sample RW-15S(110-120)-082416MS (460-119177-5) in batch 460-388683. 2,4-Dichlorophenol, 2-Nitrophenol, 4-Nitrophenol and Benzo[k]fluoranthene exceeded the RPD limit for the MSD of sample RW-15S(110-120)-082416MSD (460-119177-5) in batch 460-388683.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)

Samples FB-04-082416 (460-119177-2), DUP-04-082416 (460-119177-3), RW-3-082416 (460-119177-4), RW-15S(110-120)-082416 (460-119177-5), RW-15D(127-137)-082416 (460-119177-6), RW-4(333-343)-082416 (460-119177-7), RW-4(393-403)-082416 (460-119177-8) and RW-4A(113-123)-082416 (460-119177-9) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) in accordance with EPA Method 8270C SIM DKQP. The samples were prepared on 08/29/2016 and analyzed on 09/04/2016.

The continuing calibration verification (CCV) analyzed in batch 460-388366 was outside the method criteria for the following analyte: Bis(2-chloroethyl)ether. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

The laboratory control sample (LCS) for preparation batch 460-387456 and analytical batch 460-388366 recovered outside control limits for the following analytes Benzo[b]fluoranthene Benzo[a]pyrene and Dibenz(a,h)anthracene:These analytes were outside DKQP limits, but within the house limits; therefore, the data have been reported.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatile organic compounds - Selected Ion Mode (SIM) analysis.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS) DKQP

Samples TB-07-082416 (460-119177-1), FB-04-082416 (460-119177-2), DUP-04-082416 (460-119177-3), RW-3-082416 (460-119177-4), RW-15S(110-120)-082416 (460-119177-5), RW-15D(127-137)-082416 (460-119177-6), RW-4(333-343)-082416 (460-119177-7), RW-4(393-403)-082416 (460-119177-8) and RW-4A(113-123)-082416 (460-119177-9) were analyzed for volatile organic

Job ID: 460-119177-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

compounds (GC-MS) DKQP in accordance with EPA SW-846 Method 8260C SIM DKQP. The samples were analyzed on 08/31/2016.

No difficulties were encountered during the volatile organic compounds (GC-MS) DKQP analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS) DKQP

Samples FB-04-082416 (460-119177-2), DUP-04-082416 (460-119177-3), RW-3-082416 (460-119177-4), RW-15S(110-120)-082416 (460-119177-5), RW-15D(127-137)-082416 (460-119177-6), RW-4(333-343)-082416 (460-119177-7), RW-4(393-403)-082416 (460-119177-8) and RW-4A(113-123)-082416 (460-119177-9) were analyzed for polychlorinated biphenyls (PCBs) DKQP in accordance with EPA SW-846 Method 8082A DKQP. The samples were prepared on 08/30/2016 and analyzed on 08/31/2016.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

METALS DKQP

Samples FB-04-082416 (460-119177-2), DUP-04-082416 (460-119177-3), RW-3-082416 (460-119177-4), RW-15S(110-120)-082416 (460-119177-5), RW-15D(127-137)-082416 (460-119177-6), RW-4(333-343)-082416 (460-119177-7), RW-4(393-403)-082416 (460-119177-8) and RW-4A(113-123)-082416 (460-119177-9) were analyzed for Metals DKQP in accordance with EPA SW-846 Method 6020A DKQP. The samples were prepared on 08/28/2016 and analyzed on 09/02/2016 and 09/09/2016.

Aluminum exceeded the RPD limit for the duplicate of sample RW-15S(110-120)-082416DU (460-119177-5).

Refer to the QC report for details.

Samples FB-04-082416 (460-119177-2)[2X], DUP-04-082416 (460-119177-3)[2X], RW-3-082416 (460-119177-4)[2X], RW-15S(110-120)-082416 (460-119177-5)[2X], RW-15D(127-137)-082416 (460-119177-6)[2X], RW-4(333-343)-082416 (460-119177-7)[2X], RW-4(393-403)-082416 (460-119177-8)[2X] and RW-4A(113-123)-082416 (460-119177-9)[2X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Metals DKQP analysis.

All other quality control parameters were within the acceptance limits.

METALS

Samples FB-04-082416 (460-119177-2), DUP-04-082416 (460-119177-3), RW-3-082416 (460-119177-4), RW-15S(110-120)-082416 (460-119177-5), RW-15D(127-137)-082416 (460-119177-6), RW-4(333-343)-082416 (460-119177-7), RW-4(393-403)-082416 (460-119177-8) and RW-4A(113-123)-082416 (460-119177-9) were analyzed for Metals in accordance with EPA SW-846 Method 6020A DKQP. The samples were prepared on 09/02/2016 and analyzed on 09/03/2016 and 09/04/2016.

No difficulties were encountered during the Metals analysis.

All quality control parameters were within the acceptance limits.

MERCURY DKQP

Samples FB-04-082416 (460-119177-2), DUP-04-082416 (460-119177-3), RW-3-082416 (460-119177-4), RW-15S(110-120)-082416 (460-119177-5), RW-15D(127-137)-082416 (460-119177-6), RW-4(333-343)-082416 (460-119177-7), RW-4(393-403)-082416 (460-119177-8) and RW-4A(113-123)-082416 (460-119177-9) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 09/01/2016 and 09/06/2016.

No difficulties were encountered during the dissolved Hg analysis.

All quality control parameters were within the acceptance limits.

Job ID: 460-119177-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

MERCURY DKQP

Samples FB-04-082416 (460-119177-2), DUP-04-082416 (460-119177-3), RW-3-082416 (460-119177-4), RW-15S(110-120)-082416 (460-119177-5), RW-15D(127-137)-082416 (460-119177-6), RW-4(333-343)-082416 (460-119177-7), RW-4(393-403)-082416 (460-119177-8) and RW-4A(113-123)-082416 (460-119177-9) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 08/31/2016.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

ANIONS

Samples FB-04-082416 (460-119177-2), DUP-04-082416 (460-119177-3), RW-3-082416 (460-119177-4), RW-15S(110-120)-082416 (460-119177-5), RW-15D(127-137)-082416 (460-119177-6), RW-4(333-343)-082416 (460-119177-7), RW-4(393-403)-082416 (460-119177-8) and RW-4A(113-123)-082416 (460-119177-9) were analyzed for anions in accordance with EPA SW-846 Method 9056. The samples were analyzed on 09/09/2016.

The following samples was diluted to bring the concentration of target analytes within the calibration range: DUP-04-082416 (460-119177-3), RW-3-082416 (460-119177-4), RW-15S(110-120)-082416 (460-119177-5), RW-15D(127-137)-082416 (460-119177-6), RW-4(333-343)-082416 (460-119177-7) and (460-119177-E-5 DU) at 5.0, 5.0, 10.0, 10.0, 20.0 and 2.0. Elevated reporting limits (RLs) are provided.

No difficulties were encountered during the anions analysis.

All quality control parameters were within the acceptance limits.

ALKALINITY

Samples FB-04-082416 (460-119177-2), DUP-04-082416 (460-119177-3), RW-3-082416 (460-119177-4), RW-15S(110-120)-082416 (460-119177-5), RW-15D(127-137)-082416 (460-119177-6), RW-4(333-343)-082416 (460-119177-7), RW-4(393-403)-082416 (460-119177-8) and RW-4A(113-123)-082416 (460-119177-9) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 09/07/2016.

No difficulties were encountered during the alkalinity analysis.

All quality control parameters were within the acceptance limits.

CYANIDE

Samples FB-04-082416 (460-119177-2), DUP-04-082416 (460-119177-3), RW-3-082416 (460-119177-4), RW-15S(110-120)-082416 (460-119177-5), RW-15D(127-137)-082416 (460-119177-6), RW-4(333-343)-082416 (460-119177-7), RW-4(393-403)-082416 (460-119177-8) and RW-4A(113-123)-082416 (460-119177-9) were analyzed for cyanide in accordance with EPA SW-846 Method 9012B (DKQP). The samples were prepared and analyzed on 09/06/2016.

No difficulties were encountered during the cyanide analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: TB-07-082416 — Lab Sample ID: 460-119177-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	8.3		5.0	1.1	ug/L	1		8260C	Total/NA

Client Sample ID: FB-04-082416 — Lab Sample ID: 460-119177-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.2		1.0	0.21	ug/L	1		8260C	Total/NA
Chloride	0.20		0.12	0.030	mg/L	1		9056A	Total/NA
Sodium	73.5	J	200	69.0	ug/L	2		6020A	Total/NA
Bicarbonate Alkalinity as CaCO3	5.0		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: DUP-04-082416 — Lab Sample ID: 460-119177-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	9.4		5.0	1.1	ug/L	1		8260C	Total/NA
Sulfate	11.5		1.20	0.21	mg/L	2		9056A	Total/NA
Chloride - DL	7.97	D	0.60	0.15	mg/L	5		9056A	Total/NA
Barium	45.6		4.0	1.2	ug/L	2		6020A	Total/NA
Manganese	120		8.0	2.5	ug/L	2		6020A	Total/NA
Nickel	5.2		4.0	1.4	ug/L	2		6020A	Total/NA
Sodium	7880		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	17400		200	63.6	ug/L	2		6020A	Total/NA
Potassium	2140		200	91.4	ug/L	2		6020A	Total/NA
Calcium	60900		200	60.5	ug/L	2		6020A	Total/NA
Barium	45.4		4.0	1.2	ug/L	2		6020A	Dissolved
Manganese	111		8.0	2.5	ug/L	2		6020A	Dissolved
Nickel	3.9	J	4.0	1.4	ug/L	2		6020A	Dissolved
Sodium	7450		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	16100		200	63.6	ug/L	2		6020A	Dissolved
Potassium	2200		200	91.4	ug/L	2		6020A	Dissolved
Calcium	58500		200	60.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	223		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	223		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-3-082416 — Lab Sample ID: 460-119177-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.6		5.0	1.1	ug/L	1		8260C	Total/NA
Sulfate	11.5		1.20	0.21	mg/L	2		9056A	Total/NA
Chloride - DL	7.94	D	0.60	0.15	mg/L	5		9056A	Total/NA
Barium	46.0		4.0	1.2	ug/L	2		6020A	Total/NA
Manganese	118		8.0	2.5	ug/L	2		6020A	Total/NA
Nickel	5.3		4.0	1.4	ug/L	2		6020A	Total/NA
Sodium	7630		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	16700		200	63.6	ug/L	2		6020A	Total/NA
Potassium	2100		200	91.4	ug/L	2		6020A	Total/NA
Calcium	60000		200	60.5	ug/L	2		6020A	Total/NA
Barium	46.3		4.0	1.2	ug/L	2		6020A	Dissolved
Manganese	115		8.0	2.5	ug/L	2		6020A	Dissolved
Nickel	3.6	J	4.0	1.4	ug/L	2		6020A	Dissolved
Sodium	7500		200	69.0	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Edison

Client Sample ID: RW-3-082416 (Continued) — Lab Sample ID: 460-119177-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	16000		200	63.6	ug/L	2		6020A	Dissolved
Potassium	2190		200	91.4	ug/L	2		6020A	Dissolved
Calcium	58800		200	60.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	225		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	225		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-15S(110-120)-082416 — Lab Sample ID: 460-119177-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	29		5.0	1.1	ug/L	1		8260C	Total/NA
Carbon disulfide	5.1		1.0	0.22	ug/L	1		8260C	Total/NA
Toluene	1.2		1.0	0.25	ug/L	1		8260C	Total/NA
Bis(2-ethylhexyl) phthalate	0.95	J	2.1	0.76	ug/L	1		8270D	Total/NA
Chloride - DL	12.6	D	0.60	0.15	mg/L	5		9056A	Total/NA
Sulfate - DL2	138	D	6.00	1.05	mg/L	10		9056A	Total/NA
Arsenic	12.7		2.0	0.64	ug/L	2		6020A	Total/NA
Barium	9.6		4.0	1.2	ug/L	2		6020A	Total/NA
Chromium	1.4	J	4.0	1.3	ug/L	2		6020A	Total/NA
Copper	1.9	J	4.0	1.4	ug/L	2		6020A	Total/NA
Nickel	1.8	J	4.0	1.4	ug/L	2		6020A	Total/NA
Lead	0.58	J	1.2	0.38	ug/L	2		6020A	Total/NA
Selenium	1.4	J	10.0	0.73	ug/L	2		6020A	Total/NA
Vanadium	20.0		4.0	1.9	ug/L	2		6020A	Total/NA
Aluminum	72.0		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	26200		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	2150		200	63.6	ug/L	2		6020A	Total/NA
Potassium	9600		200	91.4	ug/L	2		6020A	Total/NA
Calcium	63600		200	60.5	ug/L	2		6020A	Total/NA
Arsenic	7.8		2.0	0.64	ug/L	2		6020A	Dissolved
Barium	7.6		4.0	1.2	ug/L	2		6020A	Dissolved
Nickel	2.6	J	4.0	1.4	ug/L	2		6020A	Dissolved
Selenium	2.1	J	10.0	0.73	ug/L	2		6020A	Dissolved
Vanadium	24.9		4.0	1.9	ug/L	2		6020A	Dissolved
Aluminum	50.7		40.0	18.2	ug/L	2		6020A	Dissolved
Sodium	32500		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	1480		200	63.6	ug/L	2		6020A	Dissolved
Potassium	12200		200	91.4	ug/L	2		6020A	Dissolved
Calcium	35100		200	60.5	ug/L	2		6020A	Dissolved
Alkalinity	40.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-15D(127-137)-082416 — Lab Sample ID: 460-119177-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	27		5.0	1.1	ug/L	1		8260C	Total/NA
Carbon disulfide	8.7		1.0	0.22	ug/L	1		8260C	Total/NA
Toluene	1.7		1.0	0.25	ug/L	1		8260C	Total/NA
Chloride - DL	27.8	D	2.40	0.60	mg/L	20		9056A	Total/NA
Sulfate - DL	219	D	12.0	2.10	mg/L	20		9056A	Total/NA
Arsenic	2.2		2.0	0.64	ug/L	2		6020A	Total/NA
Barium	34.9		4.0	1.2	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RW-15D(127-137)-082416 (Continued)

Lab Sample ID: 460-119177-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	2.8	J	4.0	1.3	ug/L	2		6020A	Total/NA
Nickel	5.7		4.0	1.4	ug/L	2		6020A	Total/NA
Selenium	4.1	J	10.0	0.73	ug/L	2		6020A	Total/NA
Vanadium	11.0		4.0	1.9	ug/L	2		6020A	Total/NA
Aluminum	112		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	81800		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	249		200	63.6	ug/L	2		6020A	Total/NA
Potassium	27500		200	91.4	ug/L	2		6020A	Total/NA
Calcium	141000		200	60.5	ug/L	2		6020A	Total/NA
Iron	101	J	120	42.4	ug/L	2		6020A	Total/NA
Arsenic	1.2	J	2.0	0.64	ug/L	2		6020A	Dissolved
Barium	30.9		4.0	1.2	ug/L	2		6020A	Dissolved
Chromium	2.0	J	4.0	1.3	ug/L	2		6020A	Dissolved
Nickel	5.9		4.0	1.4	ug/L	2		6020A	Dissolved
Selenium	5.2	J	10.0	0.73	ug/L	2		6020A	Dissolved
Vanadium	9.0		4.0	1.9	ug/L	2		6020A	Dissolved
Aluminum	51.7		40.0	18.2	ug/L	2		6020A	Dissolved
Sodium	83100		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	183	J	200	63.6	ug/L	2		6020A	Dissolved
Potassium	28000		200	91.4	ug/L	2		6020A	Dissolved
Calcium	106000		200	60.5	ug/L	2		6020A	Dissolved
Iron	99.6	J	120	42.4	ug/L	2		6020A	Dissolved
Alkalinity	350		10.0	10.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-4(333-343)-082416

Lab Sample ID: 460-119177-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	10		5.0	1.1	ug/L	1		8260C	Total/NA
Chloride - DL	5.38	D	0.24	0.060	mg/L	2		9056A	Total/NA
Sulfate - DL	27.5	D	1.20	0.21	mg/L	2		9056A	Total/NA
Arsenic	1.1	J	2.0	0.64	ug/L	2		6020A	Total/NA
Barium	21.8		4.0	1.2	ug/L	2		6020A	Total/NA
Chromium	40.8		4.0	1.3	ug/L	2		6020A	Total/NA
Copper	1.7	J	4.0	1.4	ug/L	2		6020A	Total/NA
Vanadium	12.1		4.0	1.9	ug/L	2		6020A	Total/NA
Aluminum	942		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	19800		200	69.0	ug/L	2		6020A	Total/NA
Potassium	5230		200	91.4	ug/L	2		6020A	Total/NA
Calcium	58900		200	60.5	ug/L	2		6020A	Total/NA
Arsenic	0.83	J	2.0	0.64	ug/L	2		6020A	Dissolved
Barium	15.4		4.0	1.2	ug/L	2		6020A	Dissolved
Chromium	37.6		4.0	1.3	ug/L	2		6020A	Dissolved
Copper	1.4	J	4.0	1.4	ug/L	2		6020A	Dissolved
Selenium	0.79	J	10.0	0.73	ug/L	2		6020A	Dissolved
Vanadium	10.8		4.0	1.9	ug/L	2		6020A	Dissolved
Aluminum	850		40.0	18.2	ug/L	2		6020A	Dissolved
Sodium	18400		200	69.0	ug/L	2		6020A	Dissolved
Potassium	5280		200	91.4	ug/L	2		6020A	Dissolved
Calcium	30000		200	60.5	ug/L	2		6020A	Dissolved
Alkalinity	161		10.0	10.0	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: RW-4(393-403)-082416 — Lab Sample ID: 460-119177-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.0		5.0	1.1	ug/L	1		8260C	Total/NA
Chloride	1.76		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	18.9		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	15.4		4.0	1.2	ug/L	2		6020A	Total/NA
Chromium	1.7	J	4.0	1.3	ug/L	2		6020A	Total/NA
Manganese	6.0	J	8.0	2.5	ug/L	2		6020A	Total/NA
Nickel	1.8	J	4.0	1.4	ug/L	2		6020A	Total/NA
Lead	0.38	J	1.2	0.38	ug/L	2		6020A	Total/NA
Zinc	9.7	J	16.0	7.0	ug/L	2		6020A	Total/NA
Aluminum	448		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	8280		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	6320		200	63.6	ug/L	2		6020A	Total/NA
Potassium	3310		200	91.4	ug/L	2		6020A	Total/NA
Calcium	18400		200	60.5	ug/L	2		6020A	Total/NA
Iron	279		120	42.4	ug/L	2		6020A	Total/NA
Barium	13.0		4.0	1.2	ug/L	2		6020A	Dissolved
Aluminum	31.6	J	40.0	18.2	ug/L	2		6020A	Dissolved
Sodium	7180		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	5690		200	63.6	ug/L	2		6020A	Dissolved
Potassium	1970		200	91.4	ug/L	2		6020A	Dissolved
Calcium	17400		200	60.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	68.3		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	68.3		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-4A(113-123)-082416 — Lab Sample ID: 460-119177-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.8		5.0	1.1	ug/L	1		8260C	Total/NA
Chloride	1.74		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	16.9		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	16.2		4.0	1.2	ug/L	2		6020A	Total/NA
Nickel	72.2		4.0	1.4	ug/L	2		6020A	Total/NA
Zinc	14.7	J	16.0	7.0	ug/L	2		6020A	Total/NA
Aluminum	83.8		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	6410		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	4750		200	63.6	ug/L	2		6020A	Total/NA
Potassium	1450		200	91.4	ug/L	2		6020A	Total/NA
Calcium	13500		200	60.5	ug/L	2		6020A	Total/NA
Barium	16.2		4.0	1.2	ug/L	2		6020A	Dissolved
Nickel	41.2		4.0	1.4	ug/L	2		6020A	Dissolved
Sodium	6180		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	4770		200	63.6	ug/L	2		6020A	Dissolved
Potassium	1580		200	91.4	ug/L	2		6020A	Dissolved
Calcium	13800		200	60.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	50.3		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	50.3		5.0	5.0	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: TB-07-082416
Date Collected: 08/24/16 00:00
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-1
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 01:54	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 01:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*08/31/16 01:54*	*1*
4-Bromofluorobenzene	*78*		*70 - 130*		*08/31/16 01:54*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/29/16 16:52	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/29/16 16:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/29/16 16:52	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/29/16 16:52	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/29/16 16:52	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/29/16 16:52	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/29/16 16:52	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/29/16 16:52	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/29/16 16:52	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/29/16 16:52	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/29/16 16:52	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 16:52	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 16:52	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/29/16 16:52	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/29/16 16:52	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/29/16 16:52	1
Acetone	**8.3**		5.0	1.1	ug/L			08/29/16 16:52	1
Benzene	0.090	U	1.0	0.090	ug/L			08/29/16 16:52	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/29/16 16:52	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/29/16 16:52	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/29/16 16:52	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/29/16 16:52	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/29/16 16:52	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/29/16 16:52	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/29/16 16:52	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/29/16 16:52	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/29/16 16:52	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/29/16 16:52	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/29/16 16:52	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/29/16 16:52	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/29/16 16:52	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/29/16 16:52	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/29/16 16:52	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/29/16 16:52	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/29/16 16:52	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/29/16 16:52	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/29/16 16:52	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/29/16 16:52	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/29/16 16:52	1
Styrene	0.17	U	1.0	0.17	ug/L			08/29/16 16:52	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/29/16 16:52	1

Client Sample ID: TB-07-082416

Lab Sample ID: 460-119177-1

Date Collected: 08/24/16 00:00

Matrix: Water

Date Received: 08/25/16 13:45

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.25	U	1.0	0.25	ug/L			08/29/16 16:52	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/29/16 16:52	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/29/16 16:52	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/29/16 16:52	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/29/16 16:52	1
Vinyl chloride	0.060	U *	1.0	0.060	ug/L			08/29/16 16:52	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/29/16 16:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/29/16 16:52*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*08/29/16 16:52*	*1*
4-Bromofluorobenzene	*110*		*70 - 130*		*08/29/16 16:52*	*1*
Dibromofluoromethane (Surr)	*114*		*70 - 130*		*08/29/16 16:52*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*08/29/16 16:52*	*1*

Client Sample ID: FB-04-082416

Lab Sample ID: 460-119177-2

Date Collected: 08/24/16 07:45

Matrix: Water

Date Received: 08/25/16 13:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 02:19	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 02:19	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 02:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*		*08/31/16 02:19*	*1*
4-Bromofluorobenzene	*84*		*70 - 130*		*08/31/16 02:19*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/29/16 17:19	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/29/16 17:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/29/16 17:19	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/29/16 17:19	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/29/16 17:19	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/29/16 17:19	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/29/16 17:19	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/29/16 17:19	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/29/16 17:19	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/29/16 17:19	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/29/16 17:19	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 17:19	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 17:19	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/29/16 17:19	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/29/16 17:19	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/29/16 17:19	1
Acetone	1.1	U	5.0	1.1	ug/L			08/29/16 17:19	1
Benzene	0.090	U	1.0	0.090	ug/L			08/29/16 17:19	1

Client Sample ID: FB-04-082416
Date Collected: 08/24/16 07:45
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	0.18	U	1.0	0.18	ug/L			08/29/16 17:19	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/29/16 17:19	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/29/16 17:19	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/29/16 17:19	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/29/16 17:19	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/29/16 17:19	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/29/16 17:19	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/29/16 17:19	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/29/16 17:19	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/29/16 17:19	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/29/16 17:19	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/29/16 17:19	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/29/16 17:19	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/29/16 17:19	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/29/16 17:19	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/29/16 17:19	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/29/16 17:19	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/29/16 17:19	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/29/16 17:19	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/29/16 17:19	1
Methylene Chloride	**1.2**		1.0	0.21	ug/L			08/29/16 17:19	1
Styrene	0.17	U	1.0	0.17	ug/L			08/29/16 17:19	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/29/16 17:19	1
Toluene	0.25	U	1.0	0.25	ug/L			08/29/16 17:19	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/29/16 17:19	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/29/16 17:19	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/29/16 17:19	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/29/16 17:19	1
Vinyl chloride	0.060	U *	1.0	0.060	ug/L			08/29/16 17:19	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/29/16 17:19	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/29/16 17:19*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*08/29/16 17:19*	*1*
4-Bromofluorobenzene	*105*		*70 - 130*		*08/29/16 17:19*	*1*
Dibromofluoromethane (Surr)	*112*		*70 - 130*		*08/29/16 17:19*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*08/29/16 17:19*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/29/16 14:39	09/04/16 17:14	1
Benzo[a]pyrene	0.028	U *	0.053	0.028	ug/L		08/29/16 14:39	09/04/16 17:14	1
Benzo[b]fluoranthene	0.013	U *	0.053	0.013	ug/L		08/29/16 14:39	09/04/16 17:14	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/04/16 17:14	1
Dibenz(a,h)anthracene	0.023	U *	0.053	0.023	ug/L		08/29/16 14:39	09/04/16 17:14	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/04/16 17:14	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/29/16 14:39	09/04/16 17:14	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/29/16 14:39	09/04/16 17:14	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: FB-04-082416
Date Collected: 08/24/16 07:45
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.44	U	11	0.44	ug/L		08/29/16 14:39	09/05/16 10:26	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 10:26	1
2-Methylphenol	1.4	U	11	1.4	ug/L		08/29/16 14:39	09/05/16 10:26	1
4-Methylphenol	0.93	U	11	0.93	ug/L		08/29/16 14:39	09/05/16 10:26	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/29/16 14:39	09/05/16 10:26	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		08/29/16 14:39	09/05/16 10:26	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 10:26	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/29/16 14:39	09/05/16 10:26	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/29/16 14:39	09/05/16 10:26	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/29/16 14:39	09/05/16 10:26	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 10:26	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/29/16 14:39	09/05/16 10:26	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 10:26	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/29/16 14:39	09/05/16 10:26	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		08/29/16 14:39	09/05/16 10:26	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/29/16 14:39	09/05/16 10:26	1
Isophorone	0.71	U	11	0.71	ug/L		08/29/16 14:39	09/05/16 10:26	1
Naphthalene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 10:26	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		08/29/16 14:39	09/05/16 10:26	1
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/29/16 14:39	09/05/16 10:26	1
2-Methylnaphthalene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 10:26	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 10:26	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 10:26	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 10:26	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 10:26	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 10:26	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		08/29/16 14:39	09/05/16 10:26	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 10:26	1
Acenaphthene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 10:26	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 10:26	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 10:26	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 10:26	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 10:26	1
Fluorene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 10:26	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/29/16 14:39	09/05/16 10:26	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 10:26	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 10:26	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 10:26	1
Anthracene	0.61	U	11	0.61	ug/L		08/29/16 14:39	09/05/16 10:26	1
Carbazole	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 10:26	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 10:26	1
Fluoranthene	0.77	U	11	0.77	ug/L		08/29/16 14:39	09/05/16 10:26	1
Pyrene	0.88	U	11	0.88	ug/L		08/29/16 14:39	09/05/16 10:26	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/29/16 14:39	09/05/16 10:26	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/29/16 14:39	09/05/16 10:26	1
Bis(2-ethylhexyl) phthalate	0.77	U	2.1	0.77	ug/L		08/29/16 14:39	09/05/16 10:26	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 10:26	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/29/16 14:39	09/05/16 10:26	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		08/29/16 14:39	09/05/16 10:26	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: FB-04-082416
Date Collected: 08/24/16 07:45
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 10:26	1
Acetophenone	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 10:26	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/29/16 14:39	09/05/16 10:26	1
Caprolactam	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 10:26	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/29/16 14:39	09/05/16 10:26	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/29/16 14:39	09/05/16 10:26	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/29/16 14:39	09/05/16 10:26	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 10:26	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 10:26	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 10:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*84*		*30 - 130*	*08/29/16 14:39*	*09/05/16 10:26*	*1*
Phenol-d5 (Surr)	*26*		*15 - 110*	*08/29/16 14:39*	*09/05/16 10:26*	*1*
Terphenyl-d14 (Surr)	*93*		*30 - 130*	*08/29/16 14:39*	*09/05/16 10:26*	*1*
2,4,6-Tribromophenol (Surr)	*93*		*15 - 110*	*08/29/16 14:39*	*09/05/16 10:26*	*1*
2-Fluorophenol (Surr)	*50*		*15 - 110*	*08/29/16 14:39*	*09/05/16 10:26*	*1*
2-Fluorobiphenyl	*88*		*30 - 130*	*08/29/16 14:39*	*09/05/16 10:26*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 16:13	1
PCB-1016	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 16:13	1
PCB-1221	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 16:13	1
PCB-1232	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 16:13	1
PCB-1242	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 16:13	1
PCB-1248	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 16:13	1
PCB-1254	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 16:13	1
PCB-1260	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 16:13	1
PCB-1262	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 16:13	1
PCB-1268	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 16:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*101*		*30 - 150*	*08/30/16 08:03*	*08/31/16 16:13*	*1*
Tetrachloro-m-xylene	*108*		*30 - 150*	*08/30/16 08:03*	*08/31/16 16:13*	*1*
DCB Decachlorobiphenyl	*72*		*30 - 150*	*08/30/16 08:03*	*08/31/16 16:13*	*1*
DCB Decachlorobiphenyl	*82*		*30 - 150*	*08/30/16 08:03*	*08/31/16 16:13*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**0.20**		0.12	0.030	mg/L			09/09/16 00:22	1
Sulfate	0.11	U	0.60	0.11	mg/L			09/09/16 00:22	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/02/16 20:27	09/03/16 23:28	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/02/16 20:27	09/03/16 23:28	2
Barium	1.2	U	4.0	1.2	ug/L		09/02/16 20:27	09/03/16 23:28	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 20:27	09/03/16 23:28	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 20:27	09/03/16 23:28	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 20:27	09/03/16 23:28	2

Client Sample ID: FB-04-082416
Date Collected: 08/24/16 07:45
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-2
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1.3	U	4.0	1.3	ug/L		09/02/16 20:27	09/03/16 23:28	2
Copper	1.4	U	4.0	1.4	ug/L		09/02/16 20:27	09/03/16 23:28	2
Manganese	2.5	U	8.0	2.5	ug/L		09/02/16 20:27	09/03/16 23:28	2
Nickel	1.4	U	4.0	1.4	ug/L		09/02/16 20:27	09/03/16 23:28	2
Lead	0.38	U	1.2	0.38	ug/L		09/02/16 20:27	09/03/16 23:28	2
Antimony	0.62	U	2.0	0.62	ug/L		09/02/16 20:27	09/03/16 23:28	2
Selenium	0.73	U	10.0	0.73	ug/L		09/02/16 20:27	09/03/16 23:28	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/02/16 20:27	09/03/16 23:28	2
Zinc	7.0	U	16.0	7.0	ug/L		09/02/16 20:27	09/03/16 23:28	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/02/16 20:27	09/03/16 23:28	2
Sodium	**73.5**	**J**	200	69.0	ug/L		09/02/16 20:27	09/03/16 23:28	2
Magnesium	63.6	U	200	63.6	ug/L		09/02/16 20:27	09/03/16 23:28	2
Potassium	91.4	U	200	91.4	ug/L		09/02/16 20:27	09/03/16 23:28	2
Calcium	60.5	U	200	60.5	ug/L		09/02/16 20:27	09/03/16 23:28	2
Iron	42.4	U	120	42.4	ug/L		09/02/16 20:27	09/03/16 23:28	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 20:27	09/03/16 23:28	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/28/16 19:06	09/09/16 16:07	2
Arsenic	0.64	U	2.0	0.64	ug/L		08/28/16 19:06	09/09/16 16:07	2
Barium	1.2	U	4.0	1.2	ug/L		08/28/16 19:06	09/09/16 16:07	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/28/16 19:06	09/09/16 16:07	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/28/16 19:06	09/09/16 16:07	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/28/16 19:06	09/09/16 16:07	2
Chromium	1.3	U	4.0	1.3	ug/L		08/28/16 19:06	09/09/16 16:07	2
Copper	1.4	U	4.0	1.4	ug/L		08/28/16 19:06	09/09/16 16:07	2
Manganese	2.5	U	8.0	2.5	ug/L		08/28/16 19:06	09/09/16 16:07	2
Nickel	1.4	U	4.0	1.4	ug/L		08/28/16 19:06	09/09/16 16:07	2
Lead	0.38	U	1.2	0.38	ug/L		08/28/16 19:06	09/09/16 16:07	2
Antimony	0.62	U	2.0	0.62	ug/L		08/28/16 19:06	09/09/16 16:07	2
Selenium	0.73	U	10.0	0.73	ug/L		08/28/16 19:06	09/09/16 16:07	2
Vanadium	1.9	U	4.0	1.9	ug/L		08/28/16 19:06	09/09/16 16:07	2
Zinc	7.0	U	16.0	7.0	ug/L		08/28/16 19:06	09/09/16 16:07	2
Aluminum	18.2	U	40.0	18.2	ug/L		08/28/16 19:06	09/09/16 16:07	2
Sodium	69.0	U	200	69.0	ug/L		08/28/16 19:06	09/09/16 16:07	2
Magnesium	63.6	U	200	63.6	ug/L		08/28/16 19:06	09/09/16 16:07	2
Potassium	91.4	U	200	91.4	ug/L		08/28/16 19:06	09/09/16 16:07	2
Calcium	60.5	U	200	60.5	ug/L		08/28/16 19:06	09/09/16 16:07	2
Iron	42.4	U	120	42.4	ug/L		08/28/16 19:06	09/09/16 16:07	2
Thallium	0.26	U	0.80	0.26	ug/L		08/28/16 19:06	09/09/16 16:07	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/31/16 12:26	08/31/16 17:21	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 16:12	1

Client Sample ID: FB-04-082416

Lab Sample ID: 460-119177-2

Date Collected: 08/24/16 07:45

Matrix: Water

Date Received: 08/25/16 13:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:49	09/06/16 14:49	1
Bicarbonate Alkalinity as CaCO3	**5.0**		5.0	5.0	mg/L			09/07/16 17:42	1
Alkalinity	5.0	U	5.0	5.0	mg/L			09/07/16 17:42	1

Client Sample ID: DUP-04-082416

Lab Sample ID: 460-119177-3

Date Collected: 08/24/16 12:00

Matrix: Water

Date Received: 08/25/16 13:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 02:44	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 02:44	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 02:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*08/31/16 02:44*	*1*
4-Bromofluorobenzene	*80*		*70 - 130*		*08/31/16 02:44*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/29/16 18:15	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/29/16 18:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/29/16 18:15	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/29/16 18:15	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/29/16 18:15	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/29/16 18:15	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/29/16 18:15	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/29/16 18:15	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/29/16 18:15	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/29/16 18:15	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/29/16 18:15	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 18:15	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 18:15	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/29/16 18:15	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/29/16 18:15	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/29/16 18:15	1
Acetone	**9.4**		5.0	1.1	ug/L			08/29/16 18:15	1
Benzene	0.090	U	1.0	0.090	ug/L			08/29/16 18:15	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/29/16 18:15	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/29/16 18:15	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/29/16 18:15	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/29/16 18:15	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/29/16 18:15	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/29/16 18:15	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/29/16 18:15	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/29/16 18:15	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/29/16 18:15	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/29/16 18:15	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/29/16 18:15	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/29/16 18:15	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: DUP-04-082416
Date Collected: 08/24/16 12:00
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/29/16 18:15	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/29/16 18:15	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/29/16 18:15	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/29/16 18:15	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/29/16 18:15	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/29/16 18:15	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/29/16 18:15	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/29/16 18:15	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/29/16 18:15	1
Styrene	0.17	U	1.0	0.17	ug/L			08/29/16 18:15	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/29/16 18:15	1
Toluene	0.25	U	1.0	0.25	ug/L			08/29/16 18:15	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/29/16 18:15	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/29/16 18:15	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/29/16 18:15	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/29/16 18:15	1
Vinyl chloride	0.060	U *	1.0	0.060	ug/L			08/29/16 18:15	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/29/16 18:15	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/29/16 18:15*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*08/29/16 18:15*	*1*
4-Bromofluorobenzene	*104*		*70 - 130*		*08/29/16 18:15*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*08/29/16 18:15*	*1*
Toluene-d8 (Surr)	*94*		*70 - 130*		*08/29/16 18:15*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/29/16 14:39	09/04/16 17:42	1
Benzo[a]pyrene	0.028	U *	0.053	0.028	ug/L		08/29/16 14:39	09/04/16 17:42	1
Benzo[b]fluoranthene	0.013	U *	0.053	0.013	ug/L		08/29/16 14:39	09/04/16 17:42	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/04/16 17:42	1
Dibenz(a,h)anthracene	0.023	U *	0.053	0.023	ug/L		08/29/16 14:39	09/04/16 17:42	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/04/16 17:42	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/29/16 14:39	09/04/16 17:42	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/29/16 14:39	09/04/16 17:42	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.44	U	11	0.44	ug/L		08/29/16 14:39	09/05/16 10:46	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 10:46	1
2-Methylphenol	1.4	U	11	1.4	ug/L		08/29/16 14:39	09/05/16 10:46	1
4-Methylphenol	0.93	U	11	0.93	ug/L		08/29/16 14:39	09/05/16 10:46	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/29/16 14:39	09/05/16 10:46	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		08/29/16 14:39	09/05/16 10:46	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 10:46	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/29/16 14:39	09/05/16 10:46	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/29/16 14:39	09/05/16 10:46	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: DUP-04-082416
Date Collected: 08/24/16 12:00
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/29/16 14:39	09/05/16 10:46	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 10:46	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/29/16 14:39	09/05/16 10:46	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 10:46	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/29/16 14:39	09/05/16 10:46	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		08/29/16 14:39	09/05/16 10:46	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/29/16 14:39	09/05/16 10:46	1
Isophorone	0.71	U	11	0.71	ug/L		08/29/16 14:39	09/05/16 10:46	1
Naphthalene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 10:46	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		08/29/16 14:39	09/05/16 10:46	1
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/29/16 14:39	09/05/16 10:46	1
2-Methylnaphthalene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 10:46	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 10:46	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 10:46	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 10:46	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 10:46	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 10:46	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		08/29/16 14:39	09/05/16 10:46	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 10:46	1
Acenaphthene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 10:46	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 10:46	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 10:46	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 10:46	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 10:46	1
Fluorene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 10:46	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/29/16 14:39	09/05/16 10:46	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 10:46	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 10:46	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 10:46	1
Anthracene	0.61	U	11	0.61	ug/L		08/29/16 14:39	09/05/16 10:46	1
Carbazole	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 10:46	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 10:46	1
Fluoranthene	0.77	U	11	0.77	ug/L		08/29/16 14:39	09/05/16 10:46	1
Pyrene	0.88	U	11	0.88	ug/L		08/29/16 14:39	09/05/16 10:46	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/29/16 14:39	09/05/16 10:46	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/29/16 14:39	09/05/16 10:46	1
Bis(2-ethylhexyl) phthalate	0.77	U	2.1	0.77	ug/L		08/29/16 14:39	09/05/16 10:46	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 10:46	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/29/16 14:39	09/05/16 10:46	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		08/29/16 14:39	09/05/16 10:46	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 10:46	1
Acetophenone	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 10:46	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/29/16 14:39	09/05/16 10:46	1
Caprolactam	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 10:46	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/29/16 14:39	09/05/16 10:46	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/29/16 14:39	09/05/16 10:46	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/29/16 14:39	09/05/16 10:46	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 10:46	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 10:46	1

Client Sample ID: DUP-04-082416

Date Collected: 08/24/16 12:00
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-3

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 10:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*78*		*30 - 130*	*08/29/16 14:39*	*09/05/16 10:46*	*1*
Phenol-d5 (Surr)	*27*		*15 - 110*	*08/29/16 14:39*	*09/05/16 10:46*	*1*
Terphenyl-d14 (Surr)	*90*		*30 - 130*	*08/29/16 14:39*	*09/05/16 10:46*	*1*
2,4,6-Tribromophenol (Surr)	*100*		*15 - 110*	*08/29/16 14:39*	*09/05/16 10:46*	*1*
2-Fluorophenol (Surr)	*44*		*15 - 110*	*08/29/16 14:39*	*09/05/16 10:46*	*1*
2-Fluorobiphenyl	*83*		*30 - 130*	*08/29/16 14:39*	*09/05/16 10:46*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 15:55	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 15:55	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 15:55	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 15:55	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 15:55	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 15:55	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 15:55	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 15:55	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 15:55	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*119*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:55*	*1*
Tetrachloro-m-xylene	*116*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:55*	*1*
DCB Decachlorobiphenyl	*93*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:55*	*1*
DCB Decachlorobiphenyl	*98*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:55*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**11.5**		1.20	0.21	mg/L			09/09/16 00:40	2

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.97**	**D**	0.60	0.15	mg/L			09/09/16 14:05	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/02/16 20:27	09/03/16 23:34	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/02/16 20:27	09/03/16 23:34	2
Barium	**45.6**		4.0	1.2	ug/L		09/02/16 20:27	09/03/16 23:34	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 20:27	09/03/16 23:34	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 20:27	09/03/16 23:34	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 20:27	09/03/16 23:34	2
Chromium	1.3	U	4.0	1.3	ug/L		09/02/16 20:27	09/03/16 23:34	2
Copper	1.4	U	4.0	1.4	ug/L		09/02/16 20:27	09/03/16 23:34	2
Manganese	**120**		8.0	2.5	ug/L		09/02/16 20:27	09/03/16 23:34	2
Nickel	**5.2**		4.0	1.4	ug/L		09/02/16 20:27	09/03/16 23:34	2
Lead	0.38	U	1.2	0.38	ug/L		09/02/16 20:27	09/03/16 23:34	2
Antimony	0.62	U	2.0	0.62	ug/L		09/02/16 20:27	09/03/16 23:34	2

Client Sample ID: DUP-04-082416

Date Collected: 08/24/16 12:00
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-3

Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.73	U	10.0	0.73	ug/L		09/02/16 20:27	09/03/16 23:34	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/02/16 20:27	09/03/16 23:34	2
Zinc	7.0	U	16.0	7.0	ug/L		09/02/16 20:27	09/03/16 23:34	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/02/16 20:27	09/03/16 23:34	2
Sodium	**7880**		200	69.0	ug/L		09/02/16 20:27	09/03/16 23:34	2
Magnesium	**17400**		200	63.6	ug/L		09/02/16 20:27	09/03/16 23:34	2
Potassium	**2140**		200	91.4	ug/L		09/02/16 20:27	09/03/16 23:34	2
Calcium	**60900**		200	60.5	ug/L		09/02/16 20:27	09/03/16 23:34	2
Iron	42.4	U	120	42.4	ug/L		09/02/16 20:27	09/03/16 23:34	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 20:27	09/03/16 23:34	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/28/16 19:06	09/02/16 08:00	2
Arsenic	0.64	U	2.0	0.64	ug/L		08/28/16 19:06	09/02/16 08:00	2
Barium	**45.4**		4.0	1.2	ug/L		08/28/16 19:06	09/02/16 08:00	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/28/16 19:06	09/02/16 08:00	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/28/16 19:06	09/02/16 08:00	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/28/16 19:06	09/02/16 08:00	2
Chromium	1.3	U	4.0	1.3	ug/L		08/28/16 19:06	09/02/16 08:00	2
Copper	1.4	U	4.0	1.4	ug/L		08/28/16 19:06	09/02/16 08:00	2
Manganese	**111**		8.0	2.5	ug/L		08/28/16 19:06	09/02/16 08:00	2
Nickel	**3.9**	**J**	4.0	1.4	ug/L		08/28/16 19:06	09/02/16 08:00	2
Lead	0.38	U	1.2	0.38	ug/L		08/28/16 19:06	09/02/16 08:00	2
Antimony	0.62	U	2.0	0.62	ug/L		08/28/16 19:06	09/02/16 08:00	2
Selenium	0.73	U	10.0	0.73	ug/L		08/28/16 19:06	09/02/16 08:00	2
Vanadium	1.9	U	4.0	1.9	ug/L		08/28/16 19:06	09/02/16 08:00	2
Zinc	7.0	U	16.0	7.0	ug/L		08/28/16 19:06	09/02/16 08:00	2
Aluminum	18.2	U	40.0	18.2	ug/L		08/28/16 19:06	09/02/16 08:00	2
Sodium	**7450**		200	69.0	ug/L		08/28/16 19:06	09/02/16 08:00	2
Magnesium	**16100**		200	63.6	ug/L		08/28/16 19:06	09/02/16 08:00	2
Potassium	**2200**		200	91.4	ug/L		08/28/16 19:06	09/02/16 08:00	2
Calcium	**58500**		200	60.5	ug/L		08/28/16 19:06	09/02/16 08:00	2
Iron	42.4	U	120	42.4	ug/L		08/28/16 19:06	09/02/16 08:00	2
Thallium	0.26	U	0.80	0.26	ug/L		08/28/16 19:06	09/02/16 08:00	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/31/16 12:26	08/31/16 17:25	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 16:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:49	09/06/16 14:50	1
Bicarbonate Alkalinity as CaCO3	**223**		5.0	5.0	mg/L			09/07/16 17:42	1
Alkalinity	**223**		5.0	5.0	mg/L			09/07/16 17:42	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: RW-3-082416
Date Collected: 08/24/16 09:35
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-4
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 03:09	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 03:09	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 03:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*08/31/16 03:09*	*1*
4-Bromofluorobenzene	*87*		*70 - 130*		*08/31/16 03:09*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/29/16 18:43	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/29/16 18:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/29/16 18:43	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/29/16 18:43	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/29/16 18:43	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/29/16 18:43	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/29/16 18:43	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/29/16 18:43	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/29/16 18:43	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/29/16 18:43	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/29/16 18:43	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 18:43	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 18:43	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/29/16 18:43	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/29/16 18:43	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/29/16 18:43	1
Acetone	**7.6**		5.0	1.1	ug/L			08/29/16 18:43	1
Benzene	0.090	U	1.0	0.090	ug/L			08/29/16 18:43	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/29/16 18:43	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/29/16 18:43	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/29/16 18:43	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/29/16 18:43	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/29/16 18:43	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/29/16 18:43	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/29/16 18:43	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/29/16 18:43	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/29/16 18:43	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/29/16 18:43	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/29/16 18:43	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/29/16 18:43	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/29/16 18:43	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/29/16 18:43	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/29/16 18:43	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/29/16 18:43	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/29/16 18:43	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/29/16 18:43	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/29/16 18:43	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/29/16 18:43	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/29/16 18:43	1
Styrene	0.17	U	1.0	0.17	ug/L			08/29/16 18:43	1

Client Sample ID: RW-3-082416
Date Collected: 08/24/16 09:35
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/29/16 18:43	1
Toluene	0.25	U	1.0	0.25	ug/L			08/29/16 18:43	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/29/16 18:43	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/29/16 18:43	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/29/16 18:43	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/29/16 18:43	1
Vinyl chloride	0.060	U *	1.0	0.060	ug/L			08/29/16 18:43	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/29/16 18:43	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/29/16 18:43*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/29/16 18:43*	*1*
4-Bromofluorobenzene	*104*		*70 - 130*		*08/29/16 18:43*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 130*		*08/29/16 18:43*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*08/29/16 18:43*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/29/16 14:39	09/04/16 18:11	1
Benzo[a]pyrene	0.028	U *	0.053	0.028	ug/L		08/29/16 14:39	09/04/16 18:11	1
Benzo[b]fluoranthene	0.013	U *	0.053	0.013	ug/L		08/29/16 14:39	09/04/16 18:11	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/04/16 18:11	1
Dibenz(a,h)anthracene	0.023	U *	0.053	0.023	ug/L		08/29/16 14:39	09/04/16 18:11	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/04/16 18:11	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/29/16 14:39	09/04/16 18:11	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/29/16 14:39	09/04/16 18:11	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.44	U	11	0.44	ug/L		08/29/16 14:39	09/05/16 11:06	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 11:06	1
2-Methylphenol	1.4	U	11	1.4	ug/L		08/29/16 14:39	09/05/16 11:06	1
4-Methylphenol	0.93	U	11	0.93	ug/L		08/29/16 14:39	09/05/16 11:06	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/29/16 14:39	09/05/16 11:06	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		08/29/16 14:39	09/05/16 11:06	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 11:06	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/29/16 14:39	09/05/16 11:06	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/29/16 14:39	09/05/16 11:06	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/29/16 14:39	09/05/16 11:06	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 11:06	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/29/16 14:39	09/05/16 11:06	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 11:06	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/29/16 14:39	09/05/16 11:06	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		08/29/16 14:39	09/05/16 11:06	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/29/16 14:39	09/05/16 11:06	1
Isophorone	0.71	U	11	0.71	ug/L		08/29/16 14:39	09/05/16 11:06	1
Naphthalene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 11:06	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		08/29/16 14:39	09/05/16 11:06	1

Client Sample ID: RW-3-082416
Date Collected: 08/24/16 09:35
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/29/16 14:39	09/05/16 11:06	1
2-Methylnaphthalene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 11:06	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 11:06	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 11:06	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 11:06	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 11:06	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 11:06	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		08/29/16 14:39	09/05/16 11:06	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 11:06	1
Acenaphthene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 11:06	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 11:06	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 11:06	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 11:06	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 11:06	1
Fluorene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 11:06	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/29/16 14:39	09/05/16 11:06	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 11:06	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 11:06	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 11:06	1
Anthracene	0.61	U	11	0.61	ug/L		08/29/16 14:39	09/05/16 11:06	1
Carbazole	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 11:06	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 11:06	1
Fluoranthene	0.77	U	11	0.77	ug/L		08/29/16 14:39	09/05/16 11:06	1
Pyrene	0.88	U	11	0.88	ug/L		08/29/16 14:39	09/05/16 11:06	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/29/16 14:39	09/05/16 11:06	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/29/16 14:39	09/05/16 11:06	1
Bis(2-ethylhexyl) phthalate	0.77	U	2.1	0.77	ug/L		08/29/16 14:39	09/05/16 11:06	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 11:06	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/29/16 14:39	09/05/16 11:06	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		08/29/16 14:39	09/05/16 11:06	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 11:06	1
Acetophenone	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 11:06	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/29/16 14:39	09/05/16 11:06	1
Caprolactam	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 11:06	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/29/16 14:39	09/05/16 11:06	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/29/16 14:39	09/05/16 11:06	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/29/16 14:39	09/05/16 11:06	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 11:06	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 11:06	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 11:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*90*		*30 - 130*	*08/29/16 14:39*	*09/05/16 11:06*	*1*
Phenol-d5 (Surr)	*23*		*15 - 110*	*08/29/16 14:39*	*09/05/16 11:06*	*1*
Terphenyl-d14 (Surr)	*99*		*30 - 130*	*08/29/16 14:39*	*09/05/16 11:06*	*1*
2,4,6-Tribromophenol (Surr)	*105*		*15 - 110*	*08/29/16 14:39*	*09/05/16 11:06*	*1*
2-Fluorophenol (Surr)	*51*		*15 - 110*	*08/29/16 14:39*	*09/05/16 11:06*	*1*
2-Fluorobiphenyl	*89*		*30 - 130*	*08/29/16 14:39*	*09/05/16 11:06*	*1*

Client Sample ID: RW-3-082416

Date Collected: 08/24/16 09:35
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-4

Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.11	U	0.43	0.11	ug/L		08/30/16 08:03	08/31/16 15:37	1
PCB-1016	0.11	U	0.43	0.11	ug/L		08/30/16 08:03	08/31/16 15:37	1
PCB-1221	0.11	U	0.43	0.11	ug/L		08/30/16 08:03	08/31/16 15:37	1
PCB-1232	0.11	U	0.43	0.11	ug/L		08/30/16 08:03	08/31/16 15:37	1
PCB-1242	0.11	U	0.43	0.11	ug/L		08/30/16 08:03	08/31/16 15:37	1
PCB-1248	0.11	U	0.43	0.11	ug/L		08/30/16 08:03	08/31/16 15:37	1
PCB-1254	0.091	U	0.43	0.091	ug/L		08/30/16 08:03	08/31/16 15:37	1
PCB-1260	0.091	U	0.43	0.091	ug/L		08/30/16 08:03	08/31/16 15:37	1
PCB-1262	0.091	U	0.43	0.091	ug/L		08/30/16 08:03	08/31/16 15:37	1
PCB-1268	0.091	U	0.43	0.091	ug/L		08/30/16 08:03	08/31/16 15:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*105*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:37*	*1*
Tetrachloro-m-xylene	*111*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:37*	*1*
DCB Decachlorobiphenyl	*88*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:37*	*1*
DCB Decachlorobiphenyl	*92*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:37*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**11.5**		1.20	0.21	mg/L			09/09/16 00:58	2

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.94**	**D**	0.60	0.15	mg/L			09/09/16 14:24	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/02/16 20:27	09/03/16 23:51	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/02/16 20:27	09/03/16 23:51	2
Barium	**46.0**		4.0	1.2	ug/L		09/02/16 20:27	09/03/16 23:51	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 20:27	09/03/16 23:51	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 20:27	09/03/16 23:51	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 20:27	09/03/16 23:51	2
Chromium	1.3	U	4.0	1.3	ug/L		09/02/16 20:27	09/03/16 23:51	2
Copper	1.4	U	4.0	1.4	ug/L		09/02/16 20:27	09/03/16 23:51	2
Manganese	**118**		8.0	2.5	ug/L		09/02/16 20:27	09/03/16 23:51	2
Nickel	**5.3**		4.0	1.4	ug/L		09/02/16 20:27	09/03/16 23:51	2
Lead	0.38	U	1.2	0.38	ug/L		09/02/16 20:27	09/03/16 23:51	2
Antimony	0.62	U	2.0	0.62	ug/L		09/02/16 20:27	09/03/16 23:51	2
Selenium	0.73	U	10.0	0.73	ug/L		09/02/16 20:27	09/03/16 23:51	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/02/16 20:27	09/03/16 23:51	2
Zinc	7.0	U	16.0	7.0	ug/L		09/02/16 20:27	09/03/16 23:51	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/02/16 20:27	09/03/16 23:51	2
Sodium	**7630**		200	69.0	ug/L		09/02/16 20:27	09/03/16 23:51	2
Magnesium	**16700**		200	63.6	ug/L		09/02/16 20:27	09/03/16 23:51	2
Potassium	**2100**		200	91.4	ug/L		09/02/16 20:27	09/03/16 23:51	2
Calcium	**60000**		200	60.5	ug/L		09/02/16 20:27	09/03/16 23:51	2
Iron	42.4	U	120	42.4	ug/L		09/02/16 20:27	09/03/16 23:51	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 20:27	09/03/16 23:51	2

Client Sample ID: RW-3-082416

Lab Sample ID: 460-119177-4

Date Collected: 08/24/16 09:35

Matrix: Water

Date Received: 08/25/16 13:45

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/28/16 19:06	09/02/16 08:46	2
Arsenic	0.64	U	2.0	0.64	ug/L		08/28/16 19:06	09/02/16 08:46	2
Barium	**46.3**		4.0	1.2	ug/L		08/28/16 19:06	09/02/16 08:46	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/28/16 19:06	09/02/16 08:46	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/28/16 19:06	09/02/16 08:46	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/28/16 19:06	09/02/16 08:46	2
Chromium	1.3	U	4.0	1.3	ug/L		08/28/16 19:06	09/02/16 08:46	2
Copper	1.4	U	4.0	1.4	ug/L		08/28/16 19:06	09/02/16 08:46	2
Manganese	**115**		8.0	2.5	ug/L		08/28/16 19:06	09/02/16 08:46	2
Nickel	**3.6**	**J**	4.0	1.4	ug/L		08/28/16 19:06	09/02/16 08:46	2
Lead	0.38	U	1.2	0.38	ug/L		08/28/16 19:06	09/02/16 08:46	2
Antimony	0.62	U	2.0	0.62	ug/L		08/28/16 19:06	09/02/16 08:46	2
Selenium	0.73	U	10.0	0.73	ug/L		08/28/16 19:06	09/02/16 08:46	2
Vanadium	1.9	U	4.0	1.9	ug/L		08/28/16 19:06	09/02/16 08:46	2
Zinc	7.0	U	16.0	7.0	ug/L		08/28/16 19:06	09/02/16 08:46	2
Aluminum	18.2	U	40.0	18.2	ug/L		08/28/16 19:06	09/02/16 08:46	2
Sodium	**7500**		200	69.0	ug/L		08/28/16 19:06	09/02/16 08:46	2
Magnesium	**16000**		200	63.6	ug/L		08/28/16 19:06	09/02/16 08:46	2
Potassium	**2190**		200	91.4	ug/L		08/28/16 19:06	09/02/16 08:46	2
Calcium	**58800**		200	60.5	ug/L		08/28/16 19:06	09/02/16 08:46	2
Iron	42.4	U	120	42.4	ug/L		08/28/16 19:06	09/02/16 08:46	2
Thallium	0.26	U	0.80	0.26	ug/L		08/28/16 19:06	09/02/16 08:46	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/31/16 12:26	08/31/16 17:27	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 16:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:49	09/06/16 14:51	1
Bicarbonate Alkalinity as CaCO3	**225**		5.0	5.0	mg/L			09/07/16 17:42	1
Alkalinity	**225**		5.0	5.0	mg/L			09/07/16 17:42	1

Client Sample ID: RW-15S(110-120)-082416

Lab Sample ID: 460-119177-5

Date Collected: 08/24/16 11:50

Matrix: Water

Date Received: 08/25/16 13:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 20:38	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 20:38	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 20:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*08/31/16 20:38*	*1*
4-Bromofluorobenzene	*89*		*70 - 130*		*08/31/16 20:38*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: RW-15S(110-120)-082416
Date Collected: 08/24/16 11:50
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/29/16 17:47	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/29/16 17:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/29/16 17:47	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/29/16 17:47	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/29/16 17:47	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/29/16 17:47	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/29/16 17:47	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/29/16 17:47	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/29/16 17:47	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/29/16 17:47	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/29/16 17:47	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 17:47	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 17:47	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/29/16 17:47	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/29/16 17:47	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/29/16 17:47	1
Acetone	**29**		5.0	1.1	ug/L			08/29/16 17:47	1
Benzene	0.090	U	1.0	0.090	ug/L			08/29/16 17:47	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/29/16 17:47	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/29/16 17:47	1
Carbon disulfide	**5.1**		1.0	0.22	ug/L			08/29/16 17:47	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/29/16 17:47	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/29/16 17:47	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/29/16 17:47	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/29/16 17:47	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/29/16 17:47	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/29/16 17:47	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/29/16 17:47	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/29/16 17:47	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/29/16 17:47	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/29/16 17:47	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/29/16 17:47	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/29/16 17:47	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/29/16 17:47	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/29/16 17:47	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/29/16 17:47	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/29/16 17:47	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/29/16 17:47	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/29/16 17:47	1
Styrene	0.17	U	1.0	0.17	ug/L			08/29/16 17:47	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/29/16 17:47	1
Toluene	**1.2**		1.0	0.25	ug/L			08/29/16 17:47	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/29/16 17:47	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/29/16 17:47	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/29/16 17:47	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/29/16 17:47	1
Vinyl chloride	0.060	U *	1.0	0.060	ug/L			08/29/16 17:47	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/29/16 17:47	1

Client Sample ID: RW-15S(110-120)-082416

Date Collected: 08/24/16 11:50
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-5

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/29/16 17:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		08/29/16 17:47	1
4-Bromofluorobenzene	103		70 - 130		08/29/16 17:47	1
Dibromofluoromethane (Surr)	104		70 - 130		08/29/16 17:47	1
Toluene-d8 (Surr)	93		70 - 130		08/29/16 17:47	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/29/16 14:39	09/04/16 16:45	1
Benzo[a]pyrene	0.028	U *	0.053	0.028	ug/L		08/29/16 14:39	09/04/16 16:45	1
Benzo[b]fluoranthene	0.013	U *	0.053	0.013	ug/L		08/29/16 14:39	09/04/16 16:45	1
Bis(2-chloroethyl)ether	0.0095	U	0.021	0.0095	ug/L		08/29/16 14:39	09/04/16 16:45	1
Dibenz(a,h)anthracene	0.023	U *	0.053	0.023	ug/L		08/29/16 14:39	09/04/16 16:45	1
Hexachlorobenzene	0.0095	U	0.021	0.0095	ug/L		08/29/16 14:39	09/04/16 16:45	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/29/16 14:39	09/04/16 16:45	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/29/16 14:39	09/04/16 16:45	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	11	0.43	ug/L		08/29/16 14:39	09/05/16 10:07	1
2-Chlorophenol	0.78	U	11	0.78	ug/L		08/29/16 14:39	09/05/16 10:07	1
2-Methylphenol	1.4	U	11	1.4	ug/L		08/29/16 14:39	09/05/16 10:07	1
4-Methylphenol	0.92	U	11	0.92	ug/L		08/29/16 14:39	09/05/16 10:07	1
2-Nitrophenol	0.63	U F2 F1	11	0.63	ug/L		08/29/16 14:39	09/05/16 10:07	1
2,4-Dimethylphenol	0.96	U	11	0.96	ug/L		08/29/16 14:39	09/05/16 10:07	1
2,4-Dichlorophenol	0.67	U F2	11	0.67	ug/L		08/29/16 14:39	09/05/16 10:07	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/29/16 14:39	09/05/16 10:07	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/29/16 14:39	09/05/16 10:07	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/29/16 14:39	09/05/16 10:07	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 10:07	1
4-Nitrophenol	4.9	U F2	21	4.9	ug/L		08/29/16 14:39	09/05/16 10:07	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 10:07	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/29/16 14:39	09/05/16 10:07	1
Hexachloroethane	0.095	U	1.1	0.095	ug/L		08/29/16 14:39	09/05/16 10:07	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/29/16 14:39	09/05/16 10:07	1
Isophorone	0.71	U	11	0.71	ug/L		08/29/16 14:39	09/05/16 10:07	1
Naphthalene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 10:07	1
4-Chloroaniline	0.77	U	11	0.77	ug/L		08/29/16 14:39	09/05/16 10:07	1
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/29/16 14:39	09/05/16 10:07	1
2-Methylnaphthalene	0.93	U	11	0.93	ug/L		08/29/16 14:39	09/05/16 10:07	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 10:07	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 10:07	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 10:07	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 10:07	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 10:07	1
2,6-Dinitrotoluene	0.93	U	2.1	0.93	ug/L		08/29/16 14:39	09/05/16 10:07	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 10:07	1
Acenaphthene	0.93	U	11	0.93	ug/L		08/29/16 14:39	09/05/16 10:07	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 10:07	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: RW-15S(110-120)-082416
Date Collected: 08/24/16 11:50
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 10:07	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 10:07	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 10:07	1
Fluorene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 10:07	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/29/16 14:39	09/05/16 10:07	1
N-Nitrosodiphenylamine	0.78	U	11	0.78	ug/L		08/29/16 14:39	09/05/16 10:07	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 10:07	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 10:07	1
Anthracene	0.60	U	11	0.60	ug/L		08/29/16 14:39	09/05/16 10:07	1
Carbazole	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 10:07	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 10:07	1
Fluoranthene	0.76	U	11	0.76	ug/L		08/29/16 14:39	09/05/16 10:07	1
Pyrene	0.88	U	11	0.88	ug/L		08/29/16 14:39	09/05/16 10:07	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/29/16 14:39	09/05/16 10:07	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/29/16 14:39	09/05/16 10:07	1
Bis(2-ethylhexyl) phthalate	**0.95**	**J**	2.1	0.76	ug/L		08/29/16 14:39	09/05/16 10:07	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 10:07	1
Benzo[k]fluoranthene	0.19	U F2	1.1	0.19	ug/L		08/29/16 14:39	09/05/16 10:07	1
Benzo[g,h,i]perylene	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 10:07	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 10:07	1
Acetophenone	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 10:07	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/29/16 14:39	09/05/16 10:07	1
Caprolactam	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 10:07	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/29/16 14:39	09/05/16 10:07	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/29/16 14:39	09/05/16 10:07	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/29/16 14:39	09/05/16 10:07	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 10:07	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 10:07	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 10:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*83*		*30 - 130*	*08/29/16 14:39*	*09/05/16 10:07*	*1*
Phenol-d5 (Surr)	*24*		*15 - 110*	*08/29/16 14:39*	*09/05/16 10:07*	*1*
Terphenyl-d14 (Surr)	*90*		*30 - 130*	*08/29/16 14:39*	*09/05/16 10:07*	*1*
2,4,6-Tribromophenol (Surr)	*102*		*15 - 110*	*08/29/16 14:39*	*09/05/16 10:07*	*1*
2-Fluorophenol (Surr)	*39*		*15 - 110*	*08/29/16 14:39*	*09/05/16 10:07*	*1*
2-Fluorobiphenyl	*80*		*30 - 130*	*08/29/16 14:39*	*09/05/16 10:07*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.10	U	0.43	0.10	ug/L		08/30/16 08:03	08/31/16 10:22	1
PCB-1016	0.10	U	0.43	0.10	ug/L		08/30/16 08:03	08/31/16 10:22	1
PCB-1221	0.10	U	0.43	0.10	ug/L		08/30/16 08:03	08/31/16 10:22	1
PCB-1232	0.10	U	0.43	0.10	ug/L		08/30/16 08:03	08/31/16 10:22	1
PCB-1242	0.10	U	0.43	0.10	ug/L		08/30/16 08:03	08/31/16 10:22	1
PCB-1248	0.10	U	0.43	0.10	ug/L		08/30/16 08:03	08/31/16 10:22	1
PCB-1254	0.089	U	0.43	0.089	ug/L		08/30/16 08:03	08/31/16 10:22	1
PCB-1260	0.089	U	0.43	0.089	ug/L		08/30/16 08:03	08/31/16 10:22	1
PCB-1262	0.089	U	0.43	0.089	ug/L		08/30/16 08:03	08/31/16 10:22	1
PCB-1268	0.089	U	0.43	0.089	ug/L		08/30/16 08:03	08/31/16 10:22	1

Client Sample ID: RW-15S(110-120)-082416
Date Collected: 08/24/16 11:50
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-5
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*85*		*30 - 150*	*08/30/16 08:03*	*08/31/16 10:22*	*1*
Tetrachloro-m-xylene	*127*		*30 - 150*	*08/30/16 08:03*	*08/31/16 10:22*	*1*
DCB Decachlorobiphenyl	*76*		*30 - 150*	*08/30/16 08:03*	*08/31/16 10:22*	*1*
DCB Decachlorobiphenyl	*102*		*30 - 150*	*08/30/16 08:03*	*08/31/16 10:22*	*1*

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.6**	**D**	0.60	0.15	mg/L			09/09/16 11:21	5

Method: 9056A - Anions, Ion Chromatography - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**138**	**D**	6.00	1.05	mg/L			09/09/16 14:42	10

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/02/16 20:27	09/03/16 20:44	2
Arsenic	**12.7**		2.0	0.64	ug/L		09/02/16 20:27	09/03/16 20:44	2
Barium	**9.6**		4.0	1.2	ug/L		09/02/16 20:27	09/03/16 20:44	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 20:27	09/03/16 20:44	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 20:27	09/03/16 20:44	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 20:27	09/03/16 20:44	2
Chromium	**1.4**	**J**	4.0	1.3	ug/L		09/02/16 20:27	09/03/16 20:44	2
Copper	**1.9**	**J**	4.0	1.4	ug/L		09/02/16 20:27	09/03/16 20:44	2
Manganese	2.5	U	8.0	2.5	ug/L		09/02/16 20:27	09/03/16 20:44	2
Nickel	**1.8**	**J**	4.0	1.4	ug/L		09/02/16 20:27	09/03/16 20:44	2
Lead	**0.58**	**J**	1.2	0.38	ug/L		09/02/16 20:27	09/03/16 20:44	2
Antimony	0.62	U	2.0	0.62	ug/L		09/02/16 20:27	09/03/16 20:44	2
Selenium	**1.4**	**J**	10.0	0.73	ug/L		09/02/16 20:27	09/03/16 20:44	2
Vanadium	**20.0**		4.0	1.9	ug/L		09/02/16 20:27	09/03/16 20:44	2
Zinc	7.0	U	16.0	7.0	ug/L		09/02/16 20:27	09/03/16 20:44	2
Aluminum	**72.0**		40.0	18.2	ug/L		09/02/16 20:27	09/03/16 20:44	2
Sodium	**26200**		200	69.0	ug/L		09/02/16 20:27	09/03/16 20:44	2
Magnesium	**2150**		200	63.6	ug/L		09/02/16 20:27	09/03/16 20:44	2
Potassium	**9600**		200	91.4	ug/L		09/02/16 20:27	09/03/16 20:44	2
Calcium	**63600**		200	60.5	ug/L		09/02/16 20:27	09/03/16 20:44	2
Iron	42.4	U	120	42.4	ug/L		09/02/16 20:27	09/03/16 20:44	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 20:27	09/03/16 20:44	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/28/16 19:06	09/02/16 07:30	2
Arsenic	**7.8**		2.0	0.64	ug/L		08/28/16 19:06	09/02/16 07:30	2
Barium	**7.6**		4.0	1.2	ug/L		08/28/16 19:06	09/02/16 07:30	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/28/16 19:06	09/02/16 07:30	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/28/16 19:06	09/02/16 07:30	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/28/16 19:06	09/02/16 07:30	2
Chromium	1.3	U	4.0	1.3	ug/L		08/28/16 19:06	09/02/16 07:30	2
Copper	1.4	U	4.0	1.4	ug/L		08/28/16 19:06	09/02/16 07:30	2
Manganese	2.5	U	8.0	2.5	ug/L		08/28/16 19:06	09/02/16 07:30	2
Nickel	**2.6**	**J**	4.0	1.4	ug/L		08/28/16 19:06	09/02/16 07:30	2
Lead	0.38	U	1.2	0.38	ug/L		08/28/16 19:06	09/02/16 07:30	2

Client Sample ID: RW-15S(110-120)-082416

Lab Sample ID: 460-119177-5

Date Collected: 08/24/16 11:50

Matrix: Water

Date Received: 08/25/16 13:45

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.62	U	2.0	0.62	ug/L		08/28/16 19:06	09/02/16 07:30	2
Selenium	**2.1**	**J**	10.0	0.73	ug/L		08/28/16 19:06	09/02/16 07:30	2
Vanadium	**24.9**		4.0	1.9	ug/L		08/28/16 19:06	09/02/16 07:30	2
Zinc	7.0	U	16.0	7.0	ug/L		08/28/16 19:06	09/02/16 07:30	2
Aluminum	**50.7**		40.0	18.2	ug/L		08/28/16 19:06	09/02/16 07:30	2
Sodium	**32500**		200	69.0	ug/L		08/28/16 19:06	09/02/16 07:30	2
Magnesium	**1480**		200	63.6	ug/L		08/28/16 19:06	09/02/16 07:30	2
Potassium	**12200**		200	91.4	ug/L		08/28/16 19:06	09/02/16 07:30	2
Calcium	**35100**		200	60.5	ug/L		08/28/16 19:06	09/02/16 07:30	2
Iron	42.4	U	120	42.4	ug/L		08/28/16 19:06	09/02/16 07:30	2
Thallium	0.26	U	0.80	0.26	ug/L		08/28/16 19:06	09/02/16 07:30	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/31/16 12:26	08/31/16 16:56	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 15:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:49	09/06/16 14:47	1
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/07/16 17:42	1
Alkalinity	**40.2**		5.0	5.0	mg/L			09/07/16 17:42	1

Client Sample ID: RW-15D(127-137)-082416

Lab Sample ID: 460-119177-6

Date Collected: 08/24/16 13:40

Matrix: Water

Date Received: 08/25/16 13:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 03:34	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 03:34	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 03:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*08/31/16 03:34*	*1*
4-Bromofluorobenzene	*81*		*70 - 130*		*08/31/16 03:34*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/29/16 19:11	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/29/16 19:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/29/16 19:11	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/29/16 19:11	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/29/16 19:11	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/29/16 19:11	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/29/16 19:11	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/29/16 19:11	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/29/16 19:11	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: RW-15D(127-137)-082416
Date Collected: 08/24/16 13:40
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/29/16 19:11	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/29/16 19:11	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 19:11	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 19:11	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/29/16 19:11	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/29/16 19:11	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/29/16 19:11	1
Acetone	**27**		5.0	1.1	ug/L			08/29/16 19:11	1
Benzene	0.090	U	1.0	0.090	ug/L			08/29/16 19:11	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/29/16 19:11	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/29/16 19:11	1
Carbon disulfide	**8.7**		1.0	0.22	ug/L			08/29/16 19:11	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/29/16 19:11	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/29/16 19:11	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/29/16 19:11	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/29/16 19:11	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/29/16 19:11	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/29/16 19:11	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/29/16 19:11	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/29/16 19:11	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/29/16 19:11	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/29/16 19:11	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/29/16 19:11	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/29/16 19:11	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/29/16 19:11	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/29/16 19:11	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/29/16 19:11	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/29/16 19:11	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/29/16 19:11	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/29/16 19:11	1
Styrene	0.17	U	1.0	0.17	ug/L			08/29/16 19:11	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/29/16 19:11	1
Toluene	**1.7**		1.0	0.25	ug/L			08/29/16 19:11	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/29/16 19:11	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/29/16 19:11	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/29/16 19:11	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/29/16 19:11	1
Vinyl chloride	0.060	U *	1.0	0.060	ug/L			08/29/16 19:11	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/29/16 19:11	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Sulfur dioxide	*19*	*J N*	*ug/L*		*1.06*	*7446-09-5*		*08/29/16 19:11*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*		*08/29/16 19:11*	*1*
4-Bromofluorobenzene	*105*		*70 - 130*		*08/29/16 19:11*	*1*
Dibromofluoromethane (Surr)	*109*		*70 - 130*		*08/29/16 19:11*	*1*
Toluene-d8 (Surr)	*95*		*70 - 130*		*08/29/16 19:11*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: RW-15D(127-137)-082416
Date Collected: 08/24/16 13:40
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-6
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/29/16 14:39	09/04/16 18:39	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/29/16 14:39	09/04/16 18:39	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/29/16 14:39	09/04/16 18:39	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/29/16 14:39	09/04/16 18:39	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/29/16 14:39	09/04/16 18:39	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/29/16 14:39	09/04/16 18:39	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/29/16 14:39	09/04/16 18:39	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/29/16 14:39	09/04/16 18:39	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/29/16 14:39	09/05/16 11:25	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/29/16 14:39	09/05/16 11:25	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/29/16 14:39	09/05/16 11:25	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/29/16 14:39	09/05/16 11:25	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/29/16 14:39	09/05/16 11:25	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/29/16 14:39	09/05/16 11:25	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/29/16 14:39	09/05/16 11:25	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/29/16 14:39	09/05/16 11:25	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/29/16 14:39	09/05/16 11:25	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/29/16 14:39	09/05/16 11:25	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 11:25	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/29/16 14:39	09/05/16 11:25	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 11:25	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/29/16 14:39	09/05/16 11:25	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/29/16 14:39	09/05/16 11:25	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/29/16 14:39	09/05/16 11:25	1
Isophorone	0.70	U	10	0.70	ug/L		08/29/16 14:39	09/05/16 11:25	1
Naphthalene	0.83	U	10	0.83	ug/L		08/29/16 14:39	09/05/16 11:25	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/29/16 14:39	09/05/16 11:25	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/29/16 14:39	09/05/16 11:25	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/29/16 14:39	09/05/16 11:25	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/29/16 14:39	09/05/16 11:25	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/29/16 14:39	09/05/16 11:25	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 11:25	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 11:25	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 11:25	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/29/16 14:39	09/05/16 11:25	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 11:25	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/29/16 14:39	09/05/16 11:25	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/29/16 14:39	09/05/16 11:25	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 11:25	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 11:25	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 11:25	1
Fluorene	0.83	U	10	0.83	ug/L		08/29/16 14:39	09/05/16 11:25	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/29/16 14:39	09/05/16 11:25	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/29/16 14:39	09/05/16 11:25	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 11:25	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 11:25	1
Anthracene	0.59	U	10	0.59	ug/L		08/29/16 14:39	09/05/16 11:25	1

Client Sample ID: RW-15D(127-137)-082416
Date Collected: 08/24/16 13:40
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbazole	0.89	U	10	0.89	ug/L		08/29/16 14:39	09/05/16 11:25	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 11:25	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/29/16 14:39	09/05/16 11:25	1
Pyrene	0.86	U	10	0.86	ug/L		08/29/16 14:39	09/05/16 11:25	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/29/16 14:39	09/05/16 11:25	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/29/16 14:39	09/05/16 11:25	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/29/16 14:39	09/05/16 11:25	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 11:25	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/29/16 14:39	09/05/16 11:25	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/29/16 14:39	09/05/16 11:25	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/29/16 14:39	09/05/16 11:25	1
Acetophenone	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 11:25	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/29/16 14:39	09/05/16 11:25	1
Caprolactam	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 11:25	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/29/16 14:39	09/05/16 11:25	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/29/16 14:39	09/05/16 11:25	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/29/16 14:39	09/05/16 11:25	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 11:25	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 11:25	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 11:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*92*		*30 - 130*	*08/29/16 14:39*	*09/05/16 11:25*	*1*
Phenol-d5 (Surr)	*26*		*15 - 110*	*08/29/16 14:39*	*09/05/16 11:25*	*1*
Terphenyl-d14 (Surr)	*87*		*30 - 130*	*08/29/16 14:39*	*09/05/16 11:25*	*1*
2,4,6-Tribromophenol (Surr)	*98*		*15 - 110*	*08/29/16 14:39*	*09/05/16 11:25*	*1*
2-Fluorophenol (Surr)	*36*		*15 - 110*	*08/29/16 14:39*	*09/05/16 11:25*	*1*
2-Fluorobiphenyl	*90*		*30 - 130*	*08/29/16 14:39*	*09/05/16 11:25*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 15:19	1
PCB-1016	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 15:19	1
PCB-1221	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 15:19	1
PCB-1232	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 15:19	1
PCB-1242	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 15:19	1
PCB-1248	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 15:19	1
PCB-1254	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 15:19	1
PCB-1260	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 15:19	1
PCB-1262	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 15:19	1
PCB-1268	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 15:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*137*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:19*	*1*
Tetrachloro-m-xylene	*137*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:19*	*1*
DCB Decachlorobiphenyl	*112*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:19*	*1*
DCB Decachlorobiphenyl	*107*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:19*	*1*

Client Sample ID: RW-15D(127-137)-082416
Date Collected: 08/24/16 13:40
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-6
Matrix: Water

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**27.8**	**D**	2.40	0.60	mg/L			09/09/16 15:00	20
Sulfate	**219**	**D**	12.0	2.10	mg/L			09/09/16 15:00	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/02/16 20:27	09/04/16 00:26	2
Arsenic	**2.2**		2.0	0.64	ug/L		09/02/16 20:27	09/04/16 00:26	2
Barium	**34.9**		4.0	1.2	ug/L		09/02/16 20:27	09/04/16 00:26	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 20:27	09/04/16 00:26	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 20:27	09/04/16 00:26	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 20:27	09/04/16 00:26	2
Chromium	**2.8**	**J**	4.0	1.3	ug/L		09/02/16 20:27	09/04/16 00:26	2
Copper	1.4	U	4.0	1.4	ug/L		09/02/16 20:27	09/04/16 00:26	2
Manganese	2.5	U	8.0	2.5	ug/L		09/02/16 20:27	09/04/16 00:26	2
Nickel	**5.7**		4.0	1.4	ug/L		09/02/16 20:27	09/04/16 00:26	2
Lead	0.38	U	1.2	0.38	ug/L		09/02/16 20:27	09/04/16 00:26	2
Antimony	0.62	U	2.0	0.62	ug/L		09/02/16 20:27	09/04/16 00:26	2
Selenium	**4.1**	**J**	10.0	0.73	ug/L		09/02/16 20:27	09/04/16 00:26	2
Vanadium	**11.0**		4.0	1.9	ug/L		09/02/16 20:27	09/04/16 00:26	2
Zinc	7.0	U	16.0	7.0	ug/L		09/02/16 20:27	09/04/16 00:26	2
Aluminum	**112**		40.0	18.2	ug/L		09/02/16 20:27	09/04/16 00:26	2
Sodium	**81800**		200	69.0	ug/L		09/02/16 20:27	09/04/16 00:26	2
Magnesium	**249**		200	63.6	ug/L		09/02/16 20:27	09/04/16 00:26	2
Potassium	**27500**		200	91.4	ug/L		09/02/16 20:27	09/04/16 00:26	2
Calcium	**141000**		200	60.5	ug/L		09/02/16 20:27	09/04/16 00:26	2
Iron	**101**	**J**	120	42.4	ug/L		09/02/16 20:27	09/04/16 00:26	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 20:27	09/04/16 00:26	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/28/16 19:06	09/02/16 08:52	2
Arsenic	**1.2**	**J**	2.0	0.64	ug/L		08/28/16 19:06	09/02/16 08:52	2
Barium	**30.9**		4.0	1.2	ug/L		08/28/16 19:06	09/02/16 08:52	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/28/16 19:06	09/02/16 08:52	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/28/16 19:06	09/02/16 08:52	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/28/16 19:06	09/02/16 08:52	2
Chromium	**2.0**	**J**	4.0	1.3	ug/L		08/28/16 19:06	09/02/16 08:52	2
Copper	1.4	U	4.0	1.4	ug/L		08/28/16 19:06	09/02/16 08:52	2
Manganese	2.5	U	8.0	2.5	ug/L		08/28/16 19:06	09/02/16 08:52	2
Nickel	**5.9**		4.0	1.4	ug/L		08/28/16 19:06	09/02/16 08:52	2
Lead	0.38	U	1.2	0.38	ug/L		08/28/16 19:06	09/02/16 08:52	2
Antimony	0.62	U	2.0	0.62	ug/L		08/28/16 19:06	09/02/16 08:52	2
Selenium	**5.2**	**J**	10.0	0.73	ug/L		08/28/16 19:06	09/02/16 08:52	2
Vanadium	**9.0**		4.0	1.9	ug/L		08/28/16 19:06	09/02/16 08:52	2
Zinc	7.0	U	16.0	7.0	ug/L		08/28/16 19:06	09/02/16 08:52	2
Aluminum	**51.7**		40.0	18.2	ug/L		08/28/16 19:06	09/02/16 08:52	2
Sodium	**83100**		200	69.0	ug/L		08/28/16 19:06	09/02/16 08:52	2
Magnesium	**183**	**J**	200	63.6	ug/L		08/28/16 19:06	09/02/16 08:52	2
Potassium	**28000**		200	91.4	ug/L		08/28/16 19:06	09/02/16 08:52	2
Calcium	**106000**		200	60.5	ug/L		08/28/16 19:06	09/02/16 08:52	2

Client Sample ID: RW-15D(127-137)-082416

Lab Sample ID: 460-119177-6

Date Collected: 08/24/16 13:40

Matrix: Water

Date Received: 08/25/16 13:45

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**99.6**	**J**	120	42.4	ug/L		08/28/16 19:06	09/02/16 08:52	2
Thallium	0.26	U	0.80	0.26	ug/L		08/28/16 19:06	09/02/16 08:52	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/31/16 12:26	08/31/16 17:29	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 16:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:49	09/06/16 14:55	1
Bicarbonate Alkalinity as CaCO3	10.0	U	10.0	10.0	mg/L			09/07/16 17:42	1
Alkalinity	**350**		10.0	10.0	mg/L			09/07/16 17:42	1

Client Sample ID: RW-4(333-343)-082416

Lab Sample ID: 460-119177-7

Date Collected: 08/24/16 14:50

Matrix: Water

Date Received: 08/25/16 13:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 21:03	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 21:03	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*08/31/16 21:03*	*1*
4-Bromofluorobenzene	*91*		*70 - 130*		*08/31/16 21:03*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/29/16 19:38	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/29/16 19:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/29/16 19:38	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/29/16 19:38	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/29/16 19:38	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/29/16 19:38	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/29/16 19:38	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/29/16 19:38	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/29/16 19:38	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/29/16 19:38	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/29/16 19:38	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 19:38	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 19:38	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/29/16 19:38	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/29/16 19:38	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/29/16 19:38	1
Acetone	**10**		5.0	1.1	ug/L			08/29/16 19:38	1
Benzene	0.090	U	1.0	0.090	ug/L			08/29/16 19:38	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: RW-4(333-343)-082416
Date Collected: 08/24/16 14:50
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	0.18	U	1.0	0.18	ug/L			08/29/16 19:38	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/29/16 19:38	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/29/16 19:38	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/29/16 19:38	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/29/16 19:38	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/29/16 19:38	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/29/16 19:38	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/29/16 19:38	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/29/16 19:38	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/29/16 19:38	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/29/16 19:38	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/29/16 19:38	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/29/16 19:38	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/29/16 19:38	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/29/16 19:38	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/29/16 19:38	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/29/16 19:38	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/29/16 19:38	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/29/16 19:38	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/29/16 19:38	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/29/16 19:38	1
Styrene	0.17	U	1.0	0.17	ug/L			08/29/16 19:38	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/29/16 19:38	1
Toluene	0.25	U	1.0	0.25	ug/L			08/29/16 19:38	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/29/16 19:38	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/29/16 19:38	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/29/16 19:38	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/29/16 19:38	1
Vinyl chloride	0.060	U *	1.0	0.060	ug/L			08/29/16 19:38	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/29/16 19:38	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/29/16 19:38*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*08/29/16 19:38*	*1*
4-Bromofluorobenzene	*109*		*70 - 130*		*08/29/16 19:38*	*1*
Dibromofluoromethane (Surr)	*113*		*70 - 130*		*08/29/16 19:38*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/29/16 19:38*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/29/16 14:39	09/04/16 19:08	1
Benzo[a]pyrene	0.028	U *	0.053	0.028	ug/L		08/29/16 14:39	09/04/16 19:08	1
Benzo[b]fluoranthene	0.013	U *	0.053	0.013	ug/L		08/29/16 14:39	09/04/16 19:08	1
Bis(2-chloroethyl)ether	0.0095	U	0.021	0.0095	ug/L		08/29/16 14:39	09/04/16 19:08	1
Dibenz(a,h)anthracene	0.023	U *	0.053	0.023	ug/L		08/29/16 14:39	09/04/16 19:08	1
Hexachlorobenzene	0.0095	U	0.021	0.0095	ug/L		08/29/16 14:39	09/04/16 19:08	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/29/16 14:39	09/04/16 19:08	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/29/16 14:39	09/04/16 19:08	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: RW-4(333-343)-082416
Date Collected: 08/24/16 14:50
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	11	0.43	ug/L		08/29/16 14:39	09/05/16 11:45	1
2-Chlorophenol	0.78	U	11	0.78	ug/L		08/29/16 14:39	09/05/16 11:45	1
2-Methylphenol	1.4	U	11	1.4	ug/L		08/29/16 14:39	09/05/16 11:45	1
4-Methylphenol	0.92	U	11	0.92	ug/L		08/29/16 14:39	09/05/16 11:45	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/29/16 14:39	09/05/16 11:45	1
2,4-Dimethylphenol	0.96	U	11	0.96	ug/L		08/29/16 14:39	09/05/16 11:45	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 11:45	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/29/16 14:39	09/05/16 11:45	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/29/16 14:39	09/05/16 11:45	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/29/16 14:39	09/05/16 11:45	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 11:45	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/29/16 14:39	09/05/16 11:45	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 11:45	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/29/16 14:39	09/05/16 11:45	1
Hexachloroethane	0.095	U	1.1	0.095	ug/L		08/29/16 14:39	09/05/16 11:45	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/29/16 14:39	09/05/16 11:45	1
Isophorone	0.71	U	11	0.71	ug/L		08/29/16 14:39	09/05/16 11:45	1
Naphthalene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 11:45	1
4-Chloroaniline	0.77	U	11	0.77	ug/L		08/29/16 14:39	09/05/16 11:45	1
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/29/16 14:39	09/05/16 11:45	1
2-Methylnaphthalene	0.93	U	11	0.93	ug/L		08/29/16 14:39	09/05/16 11:45	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 11:45	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 11:45	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 11:45	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 11:45	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 11:45	1
2,6-Dinitrotoluene	0.93	U	2.1	0.93	ug/L		08/29/16 14:39	09/05/16 11:45	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 11:45	1
Acenaphthene	0.93	U	11	0.93	ug/L		08/29/16 14:39	09/05/16 11:45	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 11:45	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 11:45	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 11:45	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 11:45	1
Fluorene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 11:45	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/29/16 14:39	09/05/16 11:45	1
N-Nitrosodiphenylamine	0.78	U	11	0.78	ug/L		08/29/16 14:39	09/05/16 11:45	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 11:45	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 11:45	1
Anthracene	0.60	U	11	0.60	ug/L		08/29/16 14:39	09/05/16 11:45	1
Carbazole	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 11:45	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 11:45	1
Fluoranthene	0.76	U	11	0.76	ug/L		08/29/16 14:39	09/05/16 11:45	1
Pyrene	0.88	U	11	0.88	ug/L		08/29/16 14:39	09/05/16 11:45	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/29/16 14:39	09/05/16 11:45	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/29/16 14:39	09/05/16 11:45	1
Bis(2-ethylhexyl) phthalate	0.76	U	2.1	0.76	ug/L		08/29/16 14:39	09/05/16 11:45	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 11:45	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/29/16 14:39	09/05/16 11:45	1
Benzo[g,h,i]perylene	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 11:45	1

Client Sample ID: RW-4(333-343)-082416
Date Collected: 08/24/16 14:50
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 11:45	1
Acetophenone	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 11:45	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/29/16 14:39	09/05/16 11:45	1
Caprolactam	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 11:45	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/29/16 14:39	09/05/16 11:45	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/29/16 14:39	09/05/16 11:45	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/29/16 14:39	09/05/16 11:45	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 11:45	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 11:45	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 11:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*97*		*30 - 130*	*08/29/16 14:39*	*09/05/16 11:45*	*1*
Phenol-d5 (Surr)	*27*		*15 - 110*	*08/29/16 14:39*	*09/05/16 11:45*	*1*
Terphenyl-d14 (Surr)	*101*		*30 - 130*	*08/29/16 14:39*	*09/05/16 11:45*	*1*
2,4,6-Tribromophenol (Surr)	*105*		*15 - 110*	*08/29/16 14:39*	*09/05/16 11:45*	*1*
2-Fluorophenol (Surr)	*52*		*15 - 110*	*08/29/16 14:39*	*09/05/16 11:45*	*1*
2-Fluorobiphenyl	*90*		*30 - 130*	*08/29/16 14:39*	*09/05/16 11:45*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 15:01	1
PCB-1016	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 15:01	1
PCB-1221	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 15:01	1
PCB-1232	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 15:01	1
PCB-1242	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 15:01	1
PCB-1248	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 15:01	1
PCB-1254	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 15:01	1
PCB-1260	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 15:01	1
PCB-1262	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 15:01	1
PCB-1268	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*136*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:01*	*1*
Tetrachloro-m-xylene	*110*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:01*	*1*
DCB Decachlorobiphenyl	*119*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:01*	*1*
DCB Decachlorobiphenyl	*108*		*30 - 150*	*08/30/16 08:03*	*08/31/16 15:01*	*1*

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.38**	**D**	0.24	0.060	mg/L			09/09/16 15:19	2
Sulfate	**27.5**	**D**	1.20	0.21	mg/L			09/09/16 15:19	2

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/02/16 20:27	09/04/16 00:38	2
Arsenic	**1.1**	**J**	2.0	0.64	ug/L		09/02/16 20:27	09/04/16 00:38	2
Barium	**21.8**		4.0	1.2	ug/L		09/02/16 20:27	09/04/16 00:38	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 20:27	09/04/16 00:38	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 20:27	09/04/16 00:38	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 20:27	09/04/16 00:38	2

Client Sample ID: RW-4(333-343)-082416
Date Collected: 08/24/16 14:50
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-7
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**40.8**		4.0	1.3	ug/L		09/02/16 20:27	09/04/16 00:38	2
Copper	**1.7**	**J**	4.0	1.4	ug/L		09/02/16 20:27	09/04/16 00:38	2
Manganese	2.5	U	8.0	2.5	ug/L		09/02/16 20:27	09/04/16 00:38	2
Nickel	1.4	U	4.0	1.4	ug/L		09/02/16 20:27	09/04/16 00:38	2
Lead	0.38	U	1.2	0.38	ug/L		09/02/16 20:27	09/04/16 00:38	2
Antimony	0.62	U	2.0	0.62	ug/L		09/02/16 20:27	09/04/16 00:38	2
Selenium	0.73	U	10.0	0.73	ug/L		09/02/16 20:27	09/04/16 00:38	2
Vanadium	**12.1**		4.0	1.9	ug/L		09/02/16 20:27	09/04/16 00:38	2
Zinc	7.0	U	16.0	7.0	ug/L		09/02/16 20:27	09/04/16 00:38	2
Aluminum	**942**		40.0	18.2	ug/L		09/02/16 20:27	09/04/16 00:38	2
Sodium	**19800**		200	69.0	ug/L		09/02/16 20:27	09/04/16 00:38	2
Magnesium	63.6	U	200	63.6	ug/L		09/02/16 20:27	09/04/16 00:38	2
Potassium	**5230**		200	91.4	ug/L		09/02/16 20:27	09/04/16 00:38	2
Calcium	**58900**		200	60.5	ug/L		09/02/16 20:27	09/04/16 00:38	2
Iron	42.4	U	120	42.4	ug/L		09/02/16 20:27	09/04/16 00:38	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 20:27	09/04/16 00:38	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/28/16 19:06	09/02/16 08:58	2
Arsenic	**0.83**	**J**	2.0	0.64	ug/L		08/28/16 19:06	09/02/16 08:58	2
Barium	**15.4**		4.0	1.2	ug/L		08/28/16 19:06	09/02/16 08:58	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/28/16 19:06	09/02/16 08:58	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/28/16 19:06	09/02/16 08:58	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/28/16 19:06	09/02/16 08:58	2
Chromium	**37.6**		4.0	1.3	ug/L		08/28/16 19:06	09/02/16 08:58	2
Copper	**1.4**	**J**	4.0	1.4	ug/L		08/28/16 19:06	09/02/16 08:58	2
Manganese	2.5	U	8.0	2.5	ug/L		08/28/16 19:06	09/02/16 08:58	2
Nickel	1.4	U	4.0	1.4	ug/L		08/28/16 19:06	09/02/16 08:58	2
Lead	0.38	U	1.2	0.38	ug/L		08/28/16 19:06	09/02/16 08:58	2
Antimony	0.62	U	2.0	0.62	ug/L		08/28/16 19:06	09/02/16 08:58	2
Selenium	**0.79**	**J**	10.0	0.73	ug/L		08/28/16 19:06	09/02/16 08:58	2
Vanadium	**10.8**		4.0	1.9	ug/L		08/28/16 19:06	09/02/16 08:58	2
Zinc	7.0	U	16.0	7.0	ug/L		08/28/16 19:06	09/02/16 08:58	2
Aluminum	**850**		40.0	18.2	ug/L		08/28/16 19:06	09/02/16 08:58	2
Sodium	**18400**		200	69.0	ug/L		08/28/16 19:06	09/02/16 08:58	2
Magnesium	63.6	U	200	63.6	ug/L		08/28/16 19:06	09/02/16 08:58	2
Potassium	**5280**		200	91.4	ug/L		08/28/16 19:06	09/02/16 08:58	2
Calcium	**30000**		200	60.5	ug/L		08/28/16 19:06	09/02/16 08:58	2
Iron	42.4	U	120	42.4	ug/L		08/28/16 19:06	09/02/16 08:58	2
Thallium	0.26	U	0.80	0.26	ug/L		08/28/16 19:06	09/02/16 08:58	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/31/16 12:26	08/31/16 17:31	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 16:23	1

Client Sample ID: RW-4(333-343)-082416

Lab Sample ID: 460-119177-7

Date Collected: 08/24/16 14:50

Matrix: Water

Date Received: 08/25/16 13:45

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:49	09/06/16 14:56	1
Bicarbonate Alkalinity as CaCO3	10.0	U	10.0	10.0	mg/L			09/07/16 17:42	1
Alkalinity	**161**		10.0	10.0	mg/L			09/07/16 17:42	1

Client Sample ID: RW-4(393-403)-082416

Lab Sample ID: 460-119177-8

Date Collected: 08/24/16 15:35

Matrix: Water

Date Received: 08/25/16 13:45

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 21:28	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 21:28	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 21:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*		*08/31/16 21:28*	*1*
4-Bromofluorobenzene	*89*		*70 - 130*		*08/31/16 21:28*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/29/16 20:06	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/29/16 20:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/29/16 20:06	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/29/16 20:06	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/29/16 20:06	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/29/16 20:06	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/29/16 20:06	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/29/16 20:06	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/29/16 20:06	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/29/16 20:06	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/29/16 20:06	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 20:06	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 20:06	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/29/16 20:06	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/29/16 20:06	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/29/16 20:06	1
Acetone	**7.0**		5.0	1.1	ug/L			08/29/16 20:06	1
Benzene	0.090	U	1.0	0.090	ug/L			08/29/16 20:06	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/29/16 20:06	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/29/16 20:06	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/29/16 20:06	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/29/16 20:06	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/29/16 20:06	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/29/16 20:06	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/29/16 20:06	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/29/16 20:06	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/29/16 20:06	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/29/16 20:06	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/29/16 20:06	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/29/16 20:06	1

Client Sample ID: RW-4(393-403)-082416
Date Collected: 08/24/16 15:35
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/29/16 20:06	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/29/16 20:06	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/29/16 20:06	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/29/16 20:06	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/29/16 20:06	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/29/16 20:06	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/29/16 20:06	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/29/16 20:06	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/29/16 20:06	1
Styrene	0.17	U	1.0	0.17	ug/L			08/29/16 20:06	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/29/16 20:06	1
Toluene	0.25	U	1.0	0.25	ug/L			08/29/16 20:06	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/29/16 20:06	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/29/16 20:06	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/29/16 20:06	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/29/16 20:06	1
Vinyl chloride	0.060	U *	1.0	0.060	ug/L			08/29/16 20:06	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/29/16 20:06	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/29/16 20:06*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*08/29/16 20:06*	*1*
4-Bromofluorobenzene	*107*		*70 - 130*		*08/29/16 20:06*	*1*
Dibromofluoromethane (Surr)	*113*		*70 - 130*		*08/29/16 20:06*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*08/29/16 20:06*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/29/16 14:39	09/04/16 19:37	1
Benzo[a]pyrene	0.028	U *	0.053	0.028	ug/L		08/29/16 14:39	09/04/16 19:37	1
Benzo[b]fluoranthene	0.013	U *	0.053	0.013	ug/L		08/29/16 14:39	09/04/16 19:37	1
Bis(2-chloroethyl)ether	0.0095	U	0.021	0.0095	ug/L		08/29/16 14:39	09/04/16 19:37	1
Dibenz(a,h)anthracene	0.023	U *	0.053	0.023	ug/L		08/29/16 14:39	09/04/16 19:37	1
Hexachlorobenzene	0.0095	U	0.021	0.0095	ug/L		08/29/16 14:39	09/04/16 19:37	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/29/16 14:39	09/04/16 19:37	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/29/16 14:39	09/04/16 19:37	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	11	0.43	ug/L		08/29/16 14:39	09/05/16 12:05	1
2-Chlorophenol	0.78	U	11	0.78	ug/L		08/29/16 14:39	09/05/16 12:05	1
2-Methylphenol	1.4	U	11	1.4	ug/L		08/29/16 14:39	09/05/16 12:05	1
4-Methylphenol	0.92	U	11	0.92	ug/L		08/29/16 14:39	09/05/16 12:05	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/29/16 14:39	09/05/16 12:05	1
2,4-Dimethylphenol	0.96	U	11	0.96	ug/L		08/29/16 14:39	09/05/16 12:05	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 12:05	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/29/16 14:39	09/05/16 12:05	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/29/16 14:39	09/05/16 12:05	1

Client Sample ID: RW-4(393-403)-082416
Date Collected: 08/24/16 15:35
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/29/16 14:39	09/05/16 12:05	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 12:05	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/29/16 14:39	09/05/16 12:05	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 12:05	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/29/16 14:39	09/05/16 12:05	1
Hexachloroethane	0.095	U	1.1	0.095	ug/L		08/29/16 14:39	09/05/16 12:05	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/29/16 14:39	09/05/16 12:05	1
Isophorone	0.71	U	11	0.71	ug/L		08/29/16 14:39	09/05/16 12:05	1
Naphthalene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 12:05	1
4-Chloroaniline	0.77	U	11	0.77	ug/L		08/29/16 14:39	09/05/16 12:05	1
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/29/16 14:39	09/05/16 12:05	1
2-Methylnaphthalene	0.93	U	11	0.93	ug/L		08/29/16 14:39	09/05/16 12:05	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 12:05	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 12:05	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 12:05	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 12:05	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 12:05	1
2,6-Dinitrotoluene	0.93	U	2.1	0.93	ug/L		08/29/16 14:39	09/05/16 12:05	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 12:05	1
Acenaphthene	0.93	U	11	0.93	ug/L		08/29/16 14:39	09/05/16 12:05	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 12:05	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 12:05	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 12:05	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 12:05	1
Fluorene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 12:05	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/29/16 14:39	09/05/16 12:05	1
N-Nitrosodiphenylamine	0.78	U	11	0.78	ug/L		08/29/16 14:39	09/05/16 12:05	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 12:05	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 12:05	1
Anthracene	0.60	U	11	0.60	ug/L		08/29/16 14:39	09/05/16 12:05	1
Carbazole	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 12:05	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 12:05	1
Fluoranthene	0.76	U	11	0.76	ug/L		08/29/16 14:39	09/05/16 12:05	1
Pyrene	0.88	U	11	0.88	ug/L		08/29/16 14:39	09/05/16 12:05	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/29/16 14:39	09/05/16 12:05	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/29/16 14:39	09/05/16 12:05	1
Bis(2-ethylhexyl) phthalate	0.76	U	2.1	0.76	ug/L		08/29/16 14:39	09/05/16 12:05	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 12:05	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/29/16 14:39	09/05/16 12:05	1
Benzo[g,h,i]perylene	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 12:05	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 12:05	1
Acetophenone	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 12:05	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/29/16 14:39	09/05/16 12:05	1
Caprolactam	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 12:05	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/29/16 14:39	09/05/16 12:05	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/29/16 14:39	09/05/16 12:05	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/29/16 14:39	09/05/16 12:05	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 12:05	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 12:05	1

Client Sample ID: RW-4(393-403)-082416
Date Collected: 08/24/16 15:35
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 12:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*74*		*30 - 130*	*08/29/16 14:39*	*09/05/16 12:05*	*1*
Phenol-d5 (Surr)	*22*		*15 - 110*	*08/29/16 14:39*	*09/05/16 12:05*	*1*
Terphenyl-d14 (Surr)	*87*		*30 - 130*	*08/29/16 14:39*	*09/05/16 12:05*	*1*
2,4,6-Tribromophenol (Surr)	*82*		*15 - 110*	*08/29/16 14:39*	*09/05/16 12:05*	*1*
2-Fluorophenol (Surr)	*40*		*15 - 110*	*08/29/16 14:39*	*09/05/16 12:05*	*1*
2-Fluorobiphenyl	*76*		*30 - 130*	*08/29/16 14:39*	*09/05/16 12:05*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:43	1
PCB-1016	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:43	1
PCB-1221	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:43	1
PCB-1232	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:43	1
PCB-1242	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:43	1
PCB-1248	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:43	1
PCB-1254	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 14:43	1
PCB-1260	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 14:43	1
PCB-1262	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 14:43	1
PCB-1268	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*100*		*30 - 150*	*08/30/16 08:03*	*08/31/16 14:43*	*1*
Tetrachloro-m-xylene	*105*		*30 - 150*	*08/30/16 08:03*	*08/31/16 14:43*	*1*
DCB Decachlorobiphenyl	*77*		*30 - 150*	*08/30/16 08:03*	*08/31/16 14:43*	*1*
DCB Decachlorobiphenyl	*82*		*30 - 150*	*08/30/16 08:03*	*08/31/16 14:43*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.76**		0.12	0.030	mg/L			09/09/16 02:12	1
Sulfate	**18.9**		0.60	0.11	mg/L			09/09/16 02:12	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/02/16 20:27	09/04/16 00:50	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/02/16 20:27	09/04/16 00:50	2
Barium	**15.4**		4.0	1.2	ug/L		09/02/16 20:27	09/04/16 00:50	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 20:27	09/04/16 00:50	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 20:27	09/04/16 00:50	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 20:27	09/04/16 00:50	2
Chromium	**1.7**	**J**	4.0	1.3	ug/L		09/02/16 20:27	09/04/16 00:50	2
Copper	1.4	U	4.0	1.4	ug/L		09/02/16 20:27	09/04/16 00:50	2
Manganese	**6.0**	**J**	8.0	2.5	ug/L		09/02/16 20:27	09/04/16 00:50	2
Nickel	**1.8**	**J**	4.0	1.4	ug/L		09/02/16 20:27	09/04/16 00:50	2
Lead	**0.38**	**J**	1.2	0.38	ug/L		09/02/16 20:27	09/04/16 00:50	2
Antimony	0.62	U	2.0	0.62	ug/L		09/02/16 20:27	09/04/16 00:50	2
Selenium	0.73	U	10.0	0.73	ug/L		09/02/16 20:27	09/04/16 00:50	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/02/16 20:27	09/04/16 00:50	2
Zinc	**9.7**	**J**	16.0	7.0	ug/L		09/02/16 20:27	09/04/16 00:50	2

Client Sample ID: RW-4(393-403)-082416
Date Collected: 08/24/16 15:35
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-8
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**448**		40.0	18.2	ug/L		09/02/16 20:27	09/04/16 00:50	2
Sodium	**8280**		200	69.0	ug/L		09/02/16 20:27	09/04/16 00:50	2
Magnesium	**6320**		200	63.6	ug/L		09/02/16 20:27	09/04/16 00:50	2
Potassium	**3310**		200	91.4	ug/L		09/02/16 20:27	09/04/16 00:50	2
Calcium	**18400**		200	60.5	ug/L		09/02/16 20:27	09/04/16 00:50	2
Iron	**279**		120	42.4	ug/L		09/02/16 20:27	09/04/16 00:50	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 20:27	09/04/16 00:50	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/28/16 19:06	09/02/16 09:04	2
Arsenic	0.64	U	2.0	0.64	ug/L		08/28/16 19:06	09/02/16 09:04	2
Barium	**13.0**		4.0	1.2	ug/L		08/28/16 19:06	09/02/16 09:04	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/28/16 19:06	09/02/16 09:04	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/28/16 19:06	09/02/16 09:04	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/28/16 19:06	09/02/16 09:04	2
Chromium	1.3	U	4.0	1.3	ug/L		08/28/16 19:06	09/02/16 09:04	2
Copper	1.4	U	4.0	1.4	ug/L		08/28/16 19:06	09/02/16 09:04	2
Manganese	2.5	U	8.0	2.5	ug/L		08/28/16 19:06	09/02/16 09:04	2
Nickel	1.4	U	4.0	1.4	ug/L		08/28/16 19:06	09/02/16 09:04	2
Lead	0.38	U	1.2	0.38	ug/L		08/28/16 19:06	09/02/16 09:04	2
Antimony	0.62	U	2.0	0.62	ug/L		08/28/16 19:06	09/02/16 09:04	2
Selenium	0.73	U	10.0	0.73	ug/L		08/28/16 19:06	09/02/16 09:04	2
Vanadium	1.9	U	4.0	1.9	ug/L		08/28/16 19:06	09/02/16 09:04	2
Zinc	7.0	U	16.0	7.0	ug/L		08/28/16 19:06	09/02/16 09:04	2
Aluminum	**31.6**	**J**	40.0	18.2	ug/L		08/28/16 19:06	09/02/16 09:04	2
Sodium	**7180**		200	69.0	ug/L		08/28/16 19:06	09/02/16 09:04	2
Magnesium	**5690**		200	63.6	ug/L		08/28/16 19:06	09/02/16 09:04	2
Potassium	**1970**		200	91.4	ug/L		08/28/16 19:06	09/02/16 09:04	2
Calcium	**17400**		200	60.5	ug/L		08/28/16 19:06	09/02/16 09:04	2
Iron	42.4	U	120	42.4	ug/L		08/28/16 19:06	09/02/16 09:04	2
Thallium	0.26	U	0.80	0.26	ug/L		08/28/16 19:06	09/02/16 09:04	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/31/16 12:26	08/31/16 17:33	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 16:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:49	09/06/16 14:57	1
Bicarbonate Alkalinity as CaCO3	**68.3**		5.0	5.0	mg/L			09/07/16 17:42	1
Alkalinity	**68.3**		5.0	5.0	mg/L			09/07/16 17:42	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: RW-4A(113-123)-082416
Date Collected: 08/24/16 16:10
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-9
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 21:53	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 21:53	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 21:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*08/31/16 21:53*	*1*
4-Bromofluorobenzene	*81*		*70 - 130*		*08/31/16 21:53*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/29/16 20:34	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/29/16 20:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/29/16 20:34	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/29/16 20:34	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/29/16 20:34	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/29/16 20:34	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/29/16 20:34	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/29/16 20:34	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/29/16 20:34	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/29/16 20:34	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/29/16 20:34	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 20:34	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 20:34	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/29/16 20:34	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/29/16 20:34	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/29/16 20:34	1
Acetone	**5.8**		5.0	1.1	ug/L			08/29/16 20:34	1
Benzene	0.090	U	1.0	0.090	ug/L			08/29/16 20:34	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/29/16 20:34	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/29/16 20:34	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/29/16 20:34	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/29/16 20:34	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/29/16 20:34	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/29/16 20:34	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/29/16 20:34	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/29/16 20:34	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/29/16 20:34	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/29/16 20:34	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/29/16 20:34	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/29/16 20:34	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/29/16 20:34	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/29/16 20:34	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/29/16 20:34	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/29/16 20:34	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/29/16 20:34	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/29/16 20:34	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/29/16 20:34	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/29/16 20:34	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/29/16 20:34	1
Styrene	0.17	U	1.0	0.17	ug/L			08/29/16 20:34	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: RW-4A(113-123)-082416
Date Collected: 08/24/16 16:10
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/29/16 20:34	1
Toluene	0.25	U	1.0	0.25	ug/L			08/29/16 20:34	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/29/16 20:34	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/29/16 20:34	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/29/16 20:34	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/29/16 20:34	1
Vinyl chloride	0.060	U *	1.0	0.060	ug/L			08/29/16 20:34	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/29/16 20:34	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*08/29/16 20:34*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*08/29/16 20:34*	*1*
4-Bromofluorobenzene	*105*		*70 - 130*		*08/29/16 20:34*	*1*
Dibromofluoromethane (Surr)	*115*		*70 - 130*		*08/29/16 20:34*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*08/29/16 20:34*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/29/16 14:39	09/04/16 20:05	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/29/16 14:39	09/04/16 20:05	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/29/16 14:39	09/04/16 20:05	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/29/16 14:39	09/04/16 20:05	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/29/16 14:39	09/04/16 20:05	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/29/16 14:39	09/04/16 20:05	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/29/16 14:39	09/04/16 20:05	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/29/16 14:39	09/04/16 20:05	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/29/16 14:39	09/05/16 12:24	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/29/16 14:39	09/05/16 12:24	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/29/16 14:39	09/05/16 12:24	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/29/16 14:39	09/05/16 12:24	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/29/16 14:39	09/05/16 12:24	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/29/16 14:39	09/05/16 12:24	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/29/16 14:39	09/05/16 12:24	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/29/16 14:39	09/05/16 12:24	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/29/16 14:39	09/05/16 12:24	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/29/16 14:39	09/05/16 12:24	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 12:24	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/29/16 14:39	09/05/16 12:24	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 12:24	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/29/16 14:39	09/05/16 12:24	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/29/16 14:39	09/05/16 12:24	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/29/16 14:39	09/05/16 12:24	1
Isophorone	0.70	U	10	0.70	ug/L		08/29/16 14:39	09/05/16 12:24	1
Naphthalene	0.83	U	10	0.83	ug/L		08/29/16 14:39	09/05/16 12:24	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/29/16 14:39	09/05/16 12:24	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: RW-4A(113-123)-082416
Date Collected: 08/24/16 16:10
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/29/16 14:39	09/05/16 12:24	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/29/16 14:39	09/05/16 12:24	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/29/16 14:39	09/05/16 12:24	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/29/16 14:39	09/05/16 12:24	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 12:24	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 12:24	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 12:24	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/29/16 14:39	09/05/16 12:24	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 12:24	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/29/16 14:39	09/05/16 12:24	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/29/16 14:39	09/05/16 12:24	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 12:24	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 12:24	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 12:24	1
Fluorene	0.83	U	10	0.83	ug/L		08/29/16 14:39	09/05/16 12:24	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/29/16 14:39	09/05/16 12:24	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/29/16 14:39	09/05/16 12:24	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 12:24	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 12:24	1
Anthracene	0.59	U	10	0.59	ug/L		08/29/16 14:39	09/05/16 12:24	1
Carbazole	0.89	U	10	0.89	ug/L		08/29/16 14:39	09/05/16 12:24	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 12:24	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/29/16 14:39	09/05/16 12:24	1
Pyrene	0.86	U	10	0.86	ug/L		08/29/16 14:39	09/05/16 12:24	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/29/16 14:39	09/05/16 12:24	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/29/16 14:39	09/05/16 12:24	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/29/16 14:39	09/05/16 12:24	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 12:24	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/29/16 14:39	09/05/16 12:24	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/29/16 14:39	09/05/16 12:24	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/29/16 14:39	09/05/16 12:24	1
Acetophenone	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 12:24	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/29/16 14:39	09/05/16 12:24	1
Caprolactam	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 12:24	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/29/16 14:39	09/05/16 12:24	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/29/16 14:39	09/05/16 12:24	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/29/16 14:39	09/05/16 12:24	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 12:24	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 12:24	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 12:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*78*		*30 - 130*	*08/29/16 14:39*	*09/05/16 12:24*	*1*
Phenol-d5 (Surr)	*22*		*15 - 110*	*08/29/16 14:39*	*09/05/16 12:24*	*1*
Terphenyl-d14 (Surr)	*91*		*30 - 130*	*08/29/16 14:39*	*09/05/16 12:24*	*1*
2,4,6-Tribromophenol (Surr)	*87*		*15 - 110*	*08/29/16 14:39*	*09/05/16 12:24*	*1*
2-Fluorophenol (Surr)	*40*		*15 - 110*	*08/29/16 14:39*	*09/05/16 12:24*	*1*
2-Fluorobiphenyl	*84*		*30 - 130*	*08/29/16 14:39*	*09/05/16 12:24*	*1*

Client Sample ID: RW-4A(113-123)-082416

Date Collected: 08/24/16 16:10
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-9

Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:25	1
PCB-1016	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:25	1
PCB-1221	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:25	1
PCB-1232	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:25	1
PCB-1242	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:25	1
PCB-1248	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:25	1
PCB-1254	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 14:25	1
PCB-1260	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 14:25	1
PCB-1262	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 14:25	1
PCB-1268	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 14:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*122*		*30 - 150*	*08/30/16 08:03*	*08/31/16 14:25*	*1*
Tetrachloro-m-xylene	*119*		*30 - 150*	*08/30/16 08:03*	*08/31/16 14:25*	*1*
DCB Decachlorobiphenyl	*93*		*30 - 150*	*08/30/16 08:03*	*08/31/16 14:25*	*1*
DCB Decachlorobiphenyl	*106*		*30 - 150*	*08/30/16 08:03*	*08/31/16 14:25*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.74**		0.12	0.030	mg/L			09/09/16 02:30	1
Sulfate	**16.9**		0.60	0.11	mg/L			09/09/16 02:30	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/02/16 20:27	09/04/16 01:07	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/02/16 20:27	09/04/16 01:07	2
Barium	**16.2**		4.0	1.2	ug/L		09/02/16 20:27	09/04/16 01:07	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 20:27	09/04/16 01:07	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 20:27	09/04/16 01:07	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 20:27	09/04/16 01:07	2
Chromium	1.3	U	4.0	1.3	ug/L		09/02/16 20:27	09/04/16 01:07	2
Copper	1.4	U	4.0	1.4	ug/L		09/02/16 20:27	09/04/16 01:07	2
Manganese	2.5	U	8.0	2.5	ug/L		09/02/16 20:27	09/04/16 01:07	2
Nickel	**72.2**		4.0	1.4	ug/L		09/02/16 20:27	09/04/16 01:07	2
Lead	0.38	U	1.2	0.38	ug/L		09/02/16 20:27	09/04/16 01:07	2
Antimony	0.62	U	2.0	0.62	ug/L		09/02/16 20:27	09/04/16 01:07	2
Selenium	0.73	U	10.0	0.73	ug/L		09/02/16 20:27	09/04/16 01:07	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/02/16 20:27	09/04/16 01:07	2
Zinc	**14.7**	**J**	16.0	7.0	ug/L		09/02/16 20:27	09/04/16 01:07	2
Aluminum	**83.8**		40.0	18.2	ug/L		09/02/16 20:27	09/04/16 01:07	2
Sodium	**6410**		200	69.0	ug/L		09/02/16 20:27	09/04/16 01:07	2
Magnesium	**4750**		200	63.6	ug/L		09/02/16 20:27	09/04/16 01:07	2
Potassium	**1450**		200	91.4	ug/L		09/02/16 20:27	09/04/16 01:07	2
Calcium	**13500**		200	60.5	ug/L		09/02/16 20:27	09/04/16 01:07	2
Iron	42.4	U	120	42.4	ug/L		09/02/16 20:27	09/04/16 01:07	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 20:27	09/04/16 01:07	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		08/28/16 19:06	09/02/16 09:15	2

Client Sample ID: RW-4A(113-123)-082416
Date Collected: 08/24/16 16:10
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-9
Matrix: Water

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.64	U	2.0	0.64	ug/L		08/28/16 19:06	09/02/16 09:15	2
Barium	**16.2**		4.0	1.2	ug/L		08/28/16 19:06	09/02/16 09:15	2
Beryllium	0.24	U	0.80	0.24	ug/L		08/28/16 19:06	09/02/16 09:15	2
Cadmium	0.71	U	2.0	0.71	ug/L		08/28/16 19:06	09/02/16 09:15	2
Cobalt	1.3	U	4.0	1.3	ug/L		08/28/16 19:06	09/02/16 09:15	2
Chromium	1.3	U	4.0	1.3	ug/L		08/28/16 19:06	09/02/16 09:15	2
Copper	1.4	U	4.0	1.4	ug/L		08/28/16 19:06	09/02/16 09:15	2
Manganese	2.5	U	8.0	2.5	ug/L		08/28/16 19:06	09/02/16 09:15	2
Nickel	**41.2**		4.0	1.4	ug/L		08/28/16 19:06	09/02/16 09:15	2
Lead	0.38	U	1.2	0.38	ug/L		08/28/16 19:06	09/02/16 09:15	2
Antimony	0.62	U	2.0	0.62	ug/L		08/28/16 19:06	09/02/16 09:15	2
Selenium	0.73	U	10.0	0.73	ug/L		08/28/16 19:06	09/02/16 09:15	2
Vanadium	1.9	U	4.0	1.9	ug/L		08/28/16 19:06	09/02/16 09:15	2
Zinc	7.0	U	16.0	7.0	ug/L		08/28/16 19:06	09/02/16 09:15	2
Aluminum	18.2	U	40.0	18.2	ug/L		08/28/16 19:06	09/02/16 09:15	2
Sodium	**6180**		200	69.0	ug/L		08/28/16 19:06	09/02/16 09:15	2
Magnesium	**4770**		200	63.6	ug/L		08/28/16 19:06	09/02/16 09:15	2
Potassium	**1580**		200	91.4	ug/L		08/28/16 19:06	09/02/16 09:15	2
Calcium	**13800**		200	60.5	ug/L		08/28/16 19:06	09/02/16 09:15	2
Iron	42.4	U	120	42.4	ug/L		08/28/16 19:06	09/02/16 09:15	2
Thallium	0.26	U	0.80	0.26	ug/L		08/28/16 19:06	09/02/16 09:15	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/31/16 12:26	08/31/16 17:34	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/06/16 11:56	09/06/16 14:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:49	09/06/16 14:58	1
Bicarbonate Alkalinity as CaCO3	**50.3**		5.0	5.0	mg/L			09/07/16 17:42	1
Alkalinity	**50.3**		5.0	5.0	mg/L			09/07/16 17:42	1

Surrogate Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)	DBFM (70-130)	TOL (70-130)
460-119177-1	TB-07-082416	109	110	114	100
460-119177-2	FB-04-082416	105	105	112	95
460-119177-3	DUP-04-082416	102	104	109	94
460-119177-4	RW-3-082416	104	104	110	95
460-119177-5	RW-15S(110-120)-082416	99	103	104	93
460-119177-5 MS	RW-15S(110-120)-082416	105	106	110	98
460-119177-5 MSD	RW-15S(110-120)-082416	106	104	111	96
460-119177-6	RW-15D(127-137)-082416	104	105	109	95
460-119177-7	RW-4(333-343)-082416	109	109	113	98
460-119177-8	RW-4(393-403)-082416	108	107	113	98
460-119177-9	RW-4A(113-123)-082416	107	105	115	97
LCS 460-387388/4	Lab Control Sample	104	107	109	97
MB 460-387388/8	Method Blank	101	101	106	94

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)
460-119177-1	TB-07-082416	109	78
460-119177-2	FB-04-082416	111	84
460-119177-3	DUP-04-082416	109	80
460-119177-4	RW-3-082416	108	87
460-119177-5	RW-15S(110-120)-082416	110	89
460-119177-5 MS	RW-15S(110-120)-082416	105	90
460-119177-5 MSD	RW-15S(110-120)-082416	105	90
460-119177-6	RW-15D(127-137)-082416	108	81
460-119177-7	RW-4(333-343)-082416	110	91
460-119177-8	RW-4(393-403)-082416	111	89
460-119177-9	RW-4A(113-123)-082416	108	81
LCS 460-387733/4	Lab Control Sample	108	91
LCS 460-387932/4	Lab Control Sample	107	104
LCSD 460-387733/5	Lab Control Sample Dup	108	89
MB 460-387733/8	Method Blank	107	78
MB 460-387932/8	Method Blank	114	86

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene

Surrogate Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPH	TBP	2FP	FBP
Lab Sample ID	Client Sample ID	(30-130)	(15-110)	(30-130)	(15-110)	(15-110)	(30-130)
460-119177-2	FB-04-082416	84	26	93	93	50	88
460-119177-3	DUP-04-082416	78	27	90	100	44	83
460-119177-4	RW-3-082416	90	23	99	105	51	89
460-119177-5	RW-15S(110-120)-082416	83	24	90	102	39	80
460-119177-5 MS	RW-15S(110-120)-082416	89	37	87	102	48	100
460-119177-5 MSD	RW-15S(110-120)-082416	93	36	83	111 X	51	93
460-119177-6	RW-15D(127-137)-082416	92	26	87	98	36	90
460-119177-7	RW-4(333-343)-082416	97	27	101	105	52	90
460-119177-8	RW-4(393-403)-082416	74	22	87	82	40	76
460-119177-9	RW-4A(113-123)-082416	78	22	91	87	40	84
LCS 460-387456/2-A	Lab Control Sample	90	30	87	99	44	90
LCS 460-387456/3-A	Lab Control Sample	96	24	96	102	39	89
MB 460-387456/1-A	Method Blank	82	21	89	99	34	79

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)
460-119177-2	FB-04-082416	101	108	72	82
460-119177-3	DUP-04-082416	119	116	93	98
460-119177-4	RW-3-082416	105	111	88	92
460-119177-5	RW-15S(110-120)-082416	85	127	76	102
460-119177-5 MS	RW-15S(110-120)-082416	115	100	94	79
460-119177-5 MSD	RW-15S(110-120)-082416	99	114	84	91
460-119177-6	RW-15D(127-137)-082416	137	137	112	107
460-119177-7	RW-4(333-343)-082416	136	110	119	108
460-119177-8	RW-4(393-403)-082416	100	105	77	82
460-119177-9	RW-4A(113-123)-082416	122	119	93	106
LCS 460-387586/2-A	Lab Control Sample	131	128	100	92
MB 460-387586/1-A	Method Blank	100	99	102	80

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-387388/8
Matrix: Water
Analysis Batch: 387388

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			08/29/16 13:09	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			08/29/16 13:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			08/29/16 13:09	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			08/29/16 13:09	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			08/29/16 13:09	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			08/29/16 13:09	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			08/29/16 13:09	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			08/29/16 13:09	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			08/29/16 13:09	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			08/29/16 13:09	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			08/29/16 13:09	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 13:09	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			08/29/16 13:09	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			08/29/16 13:09	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			08/29/16 13:09	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			08/29/16 13:09	1
Acetone	1.1	U	5.0	1.1	ug/L			08/29/16 13:09	1
Benzene	0.090	U	1.0	0.090	ug/L			08/29/16 13:09	1
Bromoform	0.18	U	1.0	0.18	ug/L			08/29/16 13:09	1
Bromomethane	0.18	U	1.0	0.18	ug/L			08/29/16 13:09	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			08/29/16 13:09	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			08/29/16 13:09	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			08/29/16 13:09	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			08/29/16 13:09	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			08/29/16 13:09	1
Chloroethane	0.37	U	1.0	0.37	ug/L			08/29/16 13:09	1
Chloroform	0.22	U	1.0	0.22	ug/L			08/29/16 13:09	1
Chloromethane	0.22	U	1.0	0.22	ug/L			08/29/16 13:09	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			08/29/16 13:09	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			08/29/16 13:09	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			08/29/16 13:09	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			08/29/16 13:09	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			08/29/16 13:09	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			08/29/16 13:09	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			08/29/16 13:09	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			08/29/16 13:09	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			08/29/16 13:09	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			08/29/16 13:09	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			08/29/16 13:09	1
Styrene	0.17	U	1.0	0.17	ug/L			08/29/16 13:09	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			08/29/16 13:09	1
Toluene	0.25	U	1.0	0.25	ug/L			08/29/16 13:09	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			08/29/16 13:09	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			08/29/16 13:09	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			08/29/16 13:09	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			08/29/16 13:09	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			08/29/16 13:09	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			08/29/16 13:09	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					08/29/16 13:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		08/29/16 13:09	1
4-Bromofluorobenzene	101		70 - 130		08/29/16 13:09	1
Dibromofluoromethane (Surr)	106		70 - 130		08/29/16 13:09	1
Toluene-d8 (Surr)	94		70 - 130		08/29/16 13:09	1

Lab Sample ID: LCS 460-387388/4
Matrix: Water
Analysis Batch: 387388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	21.1		ug/L		105	70 - 130
1,1,2,2-Tetrachloroethane	20.0	17.3		ug/L		86	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	18.7		ug/L		94	70 - 130
1,1,2-Trichloroethane	20.0	17.7		ug/L		88	70 - 130
1,1-Dichloroethane	20.0	14.4		ug/L		72	70 - 130
1,1-Dichloroethene	20.0	18.2		ug/L		91	70 - 130
1,2,3-Trichlorobenzene	20.0	18.6		ug/L		93	70 - 130
1,2,4-Trichlorobenzene	20.0	19.6		ug/L		98	70 - 130
1,2-Dichlorobenzene	20.0	20.2		ug/L		101	70 - 130
1,2-Dichloroethane	20.0	20.0		ug/L		100	70 - 130
1,2-Dichloropropane	20.0	16.0		ug/L		80	70 - 130
1,3-Dichlorobenzene	20.0	20.2		ug/L		101	70 - 130
1,4-Dichlorobenzene	20.0	20.4		ug/L		102	70 - 130
2-Butanone (MEK)	100	120		ug/L		120	40 - 160
2-Hexanone	100	96.2		ug/L		96	40 - 160
4-Methyl-2-pentanone (MIBK)	100	100		ug/L		100	40 - 160
Acetone	100	82.9		ug/L		83	40 - 160
Benzene	20.0	17.8		ug/L		89	70 - 130
Bromoform	20.0	20.8		ug/L		104	70 - 130
Bromomethane	20.0	24.8		ug/L		124	40 - 160
Carbon disulfide	20.0	16.0		ug/L		80	40 - 160
Carbon tetrachloride	20.0	22.0		ug/L		110	70 - 130
Chlorobenzene	20.0	20.0		ug/L		100	70 - 130
Chlorobromomethane	20.0	23.4		ug/L		117	70 - 130
Chlorodibromomethane	20.0	20.7		ug/L		103	70 - 130
Chloroethane	20.0	16.9		ug/L		84	40 - 160
Chloroform	20.0	20.0		ug/L		100	70 - 130
Chloromethane	20.0	16.1		ug/L		81	40 - 160
cis-1,2-Dichloroethene	20.0	20.7		ug/L		103	70 - 130
cis-1,3-Dichloropropene	20.0	17.4		ug/L		87	70 - 130
Cyclohexane	20.0	15.3		ug/L		77	70 - 130
Dichlorobromomethane	20.0	19.7		ug/L		99	70 - 130
Dichlorodifluoromethane	20.0	16.0		ug/L		80	40 - 160
Ethylbenzene	20.0	19.5		ug/L		98	70 - 130
Isopropylbenzene	20.0	20.3		ug/L		102	70 - 130
Methyl acetate	100	107		ug/L		107	70 - 130
Methyl tert-butyl ether	20.0	17.3		ug/L		86	70 - 130
Methylcyclohexane	20.0	19.9		ug/L		99	70 - 130
Methylene Chloride	20.0	16.4		ug/L		82	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-387388/4
Matrix: Water
Analysis Batch: 387388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Styrene	20.0	19.3		ug/L		97	70 - 130
Tetrachloroethene	20.0	20.6		ug/L		103	70 - 130
Toluene	20.0	18.7		ug/L		93	70 - 130
trans-1,2-Dichloroethene	20.0	17.6		ug/L		88	70 - 130
trans-1,3-Dichloropropene	20.0	18.0		ug/L		90	70 - 130
Trichloroethene	20.0	20.1		ug/L		100	70 - 130
Trichlorofluoromethane	20.0	21.0		ug/L		105	40 - 160
Vinyl chloride	20.0	13.3	*	ug/L		66	70 - 130
Xylenes, Total	40.0	39.4		ug/L		99	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*
4-Bromofluorobenzene	*107*		*70 - 130*
Dibromofluoromethane (Surr)	*109*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Lab Sample ID: 460-119177-5 MS
Matrix: Water
Analysis Batch: 387388

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.28	U	20.0	21.8		ug/L		109	70 - 130
1,1,2,2-Tetrachloroethane	0.19	U	20.0	16.6		ug/L		83	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	20.0	22.6		ug/L		113	70 - 130
1,1,2-Trichloroethane	0.080	U	20.0	17.1		ug/L		85	70 - 130
1,1-Dichloroethane	0.24	U	20.0	17.9		ug/L		90	70 - 130
1,1-Dichloroethene	0.34	U	20.0	21.2		ug/L		106	70 - 130
1,2,3-Trichlorobenzene	0.35	U	20.0	16.5		ug/L		83	70 - 130
1,2,4-Trichlorobenzene	0.27	U	20.0	17.4		ug/L		87	70 - 130
1,2-Dichlorobenzene	0.22	U	20.0	17.1		ug/L		85	70 - 130
1,2-Dichloroethane	0.25	U	20.0	19.5		ug/L		97	70 - 130
1,2-Dichloropropane	0.18	U	20.0	16.3		ug/L		81	70 - 130
1,3-Dichlorobenzene	0.33	U	20.0	19.6		ug/L		98	70 - 130
1,4-Dichlorobenzene	0.33	U	20.0	19.4		ug/L		97	70 - 130
2-Butanone (MEK)	2.2	U	100	122		ug/L		122	40 - 160
2-Hexanone	0.72	U	100	98.0		ug/L		98	40 - 160
4-Methyl-2-pentanone (MIBK)	0.63	U	100	101		ug/L		101	40 - 160
Acetone	29		100	117		ug/L		88	40 - 160
Benzene	0.090	U	20.0	18.0		ug/L		90	70 - 130
Bromoform	0.18	U	20.0	20.3		ug/L		101	70 - 130
Bromomethane	0.18	U	20.0	27.1		ug/L		135	40 - 160
Carbon disulfide	5.1		20.0	25.1		ug/L		100	40 - 160
Carbon tetrachloride	0.33	U	20.0	22.1		ug/L		110	70 - 130
Chlorobenzene	0.24	U	20.0	20.4		ug/L		102	70 - 130
Chlorobromomethane	0.30	U	20.0	22.5		ug/L		113	70 - 130
Chlorodibromomethane	0.22	U	20.0	19.9		ug/L		100	70 - 130
Chloroethane	0.37	U	20.0	23.2		ug/L		116	40 - 160

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-119177-5 MS
Matrix: Water
Analysis Batch: 387388

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	0.22	U	20.0	20.6		ug/L		103	70 - 130
Chloromethane	0.22	U	20.0	22.9		ug/L		114	40 - 160
cis-1,2-Dichloroethene	0.26	U	20.0	21.2		ug/L		106	70 - 130
cis-1,3-Dichloropropene	0.16	U	20.0	17.2		ug/L		86	70 - 130
Cyclohexane	0.26	U	20.0	15.6		ug/L		78	70 - 130
Dichlorobromomethane	0.15	U	20.0	20.1		ug/L		101	70 - 130
Dichlorodifluoromethane	0.14	U	20.0	19.6		ug/L		98	40 - 160
Ethylbenzene	0.30	U	20.0	19.8		ug/L		99	70 - 130
Isopropylbenzene	0.32	U	20.0	20.2		ug/L		101	70 - 130
Methyl acetate	0.58	U	100	102		ug/L		102	70 - 130
Methyl tert-butyl ether	0.13	U	20.0	19.9		ug/L		100	70 - 130
Methylcyclohexane	0.22	U	20.0	19.2		ug/L		96	70 - 130
Methylene Chloride	0.21	U	20.0	18.9		ug/L		95	70 - 130
Styrene	0.17	U	20.0	18.4		ug/L		92	70 - 130
Tetrachloroethene	0.12	U	20.0	21.2		ug/L		106	70 - 130
Toluene	1.2		20.0	19.8		ug/L		93	70 - 130
trans-1,2-Dichloroethene	0.18	U	20.0	21.1		ug/L		105	70 - 130
trans-1,3-Dichloropropene	0.19	U	20.0	17.3		ug/L		87	70 - 130
Trichloroethene	0.22	U	20.0	20.2		ug/L		101	70 - 130
Trichlorofluoromethane	0.15	U	20.0	25.0		ug/L		125	40 - 160
Vinyl chloride	0.060	U *	20.0	18.4		ug/L		92	70 - 130
Xylenes, Total	0.28	U	40.0	39.5		ug/L		99	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene	*106*		*70 - 130*
Dibromofluoromethane (Surr)	*110*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: 460-119177-5 MSD
Matrix: Water
Analysis Batch: 387388

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.28	U	20.0	22.4		ug/L		112	70 - 130	3	20
1,1,2,2-Tetrachloroethane	0.19	U	20.0	17.4		ug/L		87	70 - 130	5	20
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	20.0	23.6		ug/L		118	70 - 130	4	20
1,1,2-Trichloroethane	0.080	U	20.0	16.7		ug/L		83	70 - 130	2	20
1,1-Dichloroethane	0.24	U	20.0	18.9		ug/L		94	70 - 130	5	20
1,1-Dichloroethene	0.34	U	20.0	21.4		ug/L		107	70 - 130	1	20
1,2,3-Trichlorobenzene	0.35	U	20.0	18.4		ug/L		92	70 - 130	11	20
1,2,4-Trichlorobenzene	0.27	U	20.0	19.2		ug/L		96	70 - 130	10	20
1,2-Dichlorobenzene	0.22	U	20.0	18.1		ug/L		91	70 - 130	6	20
1,2-Dichloroethane	0.25	U	20.0	20.5		ug/L		103	70 - 130	5	20
1,2-Dichloropropane	0.18	U	20.0	17.0		ug/L		85	70 - 130	4	20
1,3-Dichlorobenzene	0.33	U	20.0	20.7		ug/L		104	70 - 130	5	20
1,4-Dichlorobenzene	0.33	U	20.0	20.5		ug/L		102	70 - 130	5	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-119177-5 MSD
Matrix: Water
Analysis Batch: 387388

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	2.2	U	100	119		ug/L		119	40 - 160	2	20
2-Hexanone	0.72	U	100	97.3		ug/L		97	40 - 160	1	20
4-Methyl-2-pentanone (MIBK)	0.63	U	100	100		ug/L		100	40 - 160	1	20
Acetone	29		100	119		ug/L		90	40 - 160	2	20
Benzene	0.090	U	20.0	18.1		ug/L		91	70 - 130	1	20
Bromoform	0.18	U	20.0	19.8		ug/L		99	70 - 130	2	20
Bromomethane	0.18	U	20.0	30.5		ug/L		153	40 - 160	12	20
Carbon disulfide	5.1		20.0	27.1		ug/L		110	40 - 160	8	20
Carbon tetrachloride	0.33	U	20.0	23.0		ug/L		115	70 - 130	4	20
Chlorobenzene	0.24	U	20.0	20.4		ug/L		102	70 - 130	0	20
Chlorobromomethane	0.30	U	20.0	23.6		ug/L		118	70 - 130	5	20
Chlorodibromomethane	0.22	U	20.0	19.8		ug/L		99	70 - 130	1	20
Chloroethane	0.37	U	20.0	24.5		ug/L		123	40 - 160	6	20
Chloroform	0.22	U	20.0	21.1		ug/L		105	70 - 130	2	20
Chloromethane	0.22	U	20.0	22.6		ug/L		113	40 - 160	1	20
cis-1,2-Dichloroethene	0.26	U	20.0	21.5		ug/L		107	70 - 130	1	20
cis-1,3-Dichloropropene	0.16	U	20.0	17.3		ug/L		86	70 - 130	1	20
Cyclohexane	0.26	U	20.0	16.1		ug/L		80	70 - 130	3	20
Dichlorobromomethane	0.15	U	20.0	20.2		ug/L		101	70 - 130	0	20
Dichlorodifluoromethane	0.14	U	20.0	20.3		ug/L		101	40 - 160	3	20
Ethylbenzene	0.30	U	20.0	19.9		ug/L		100	70 - 130	1	20
Isopropylbenzene	0.32	U	20.0	20.5		ug/L		102	70 - 130	1	20
Methyl acetate	0.58	U	100	97.3		ug/L		97	70 - 130	5	20
Methyl tert-butyl ether	0.13	U	20.0	20.5		ug/L		102	70 - 130	3	20
Methylcyclohexane	0.22	U	20.0	20.3		ug/L		102	70 - 130	6	20
Methylene Chloride	0.21	U	20.0	20.1		ug/L		100	70 - 130	6	20
Styrene	0.17	U	20.0	19.5		ug/L		98	70 - 130	6	20
Tetrachloroethene	0.12	U	20.0	21.4		ug/L		107	70 - 130	1	20
Toluene	1.2		20.0	20.1		ug/L		95	70 - 130	1	20
trans-1,2-Dichloroethene	0.18	U	20.0	21.5		ug/L		108	70 - 130	2	20
trans-1,3-Dichloropropene	0.19	U	20.0	17.7		ug/L		89	70 - 130	2	20
Trichloroethene	0.22	U	20.0	21.1		ug/L		105	70 - 130	4	20
Trichlorofluoromethane	0.15	U	20.0	25.5		ug/L		127	40 - 160	2	20
Vinyl chloride	0.060	U *	20.0	19.6		ug/L		98	70 - 130	7	20
Xylenes, Total	0.28	U	40.0	40.0		ug/L		100	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*
4-Bromofluorobenzene	*104*		*70 - 130*
Dibromofluoromethane (Surr)	*111*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-387733/8
Matrix: Water
Analysis Batch: 387733

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 00:39	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 00:39	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 00:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*08/31/16 00:39*	*1*
4-Bromofluorobenzene	*78*		*70 - 130*		*08/31/16 00:39*	*1*

Lab Sample ID: LCS 460-387733/4
Matrix: Water
Analysis Batch: 387733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dibromo-3-Chloropropane			0.500	0.271		ug/L		54	40 - 160		
Ethylene Dibromide			0.500	0.445		ug/L		89	70 - 130		
1,2,3-Trichloropropane			0.500	0.398		ug/L		80	40 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*
4-Bromofluorobenzene	*91*		*70 - 130*

Lab Sample ID: LCSD 460-387733/5
Matrix: Water
Analysis Batch: 387733

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.500	0.272		ug/L		54	40 - 160	0	20
Ethylene Dibromide			0.500	0.444		ug/L		89	70 - 130	0	20
1,2,3-Trichloropropane			0.500	0.397		ug/L		79	40 - 160	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*
4-Bromofluorobenzene	*89*		*70 - 130*

Lab Sample ID: MB 460-387932/8
Matrix: Water
Analysis Batch: 387932

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 18:57	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 18:57	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 18:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 130*		*08/31/16 18:57*	*1*
4-Bromofluorobenzene	*86*		*70 - 130*		*08/31/16 18:57*	*1*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-387932/4
Matrix: Water
Analysis Batch: 387932

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.500	0.407		ug/L		81	40 - 160
Ethylene Dibromide	0.500	0.484		ug/L		97	70 - 130
1,2,3-Trichloropropane	0.500	0.500		ug/L		100	40 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*
4-Bromofluorobenzene	*104*		*70 - 130*

Lab Sample ID: 460-119177-5 MS
Matrix: Water
Analysis Batch: 387932

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.0070	U	0.500	0.276		ug/L		55	40 - 160
Ethylene Dibromide	0.0060	U	0.500	0.469		ug/L		94	70 - 130
1,2,3-Trichloropropane	0.011	U	0.500	0.394		ug/L		79	40 - 160

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene	*90*		*70 - 130*

Lab Sample ID: 460-119177-5 MSD
Matrix: Water
Analysis Batch: 387932

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.0070	U	0.500	0.277		ug/L		55	40 - 160	0	20
Ethylene Dibromide	0.0060	U	0.500	0.456		ug/L		91	70 - 130	3	20
1,2,3-Trichloropropane	0.011	U	0.500	0.398		ug/L		80	40 - 160	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*
4-Bromofluorobenzene	*90*		*70 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-387456/1-A
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/29/16 14:39	09/05/16 08:29	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/29/16 14:39	09/05/16 08:29	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/29/16 14:39	09/05/16 08:29	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/29/16 14:39	09/05/16 08:29	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/29/16 14:39	09/05/16 08:29	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-387456/1-A
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/29/16 14:39	09/05/16 08:29	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/29/16 14:39	09/05/16 08:29	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/29/16 14:39	09/05/16 08:29	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/29/16 14:39	09/05/16 08:29	1
Pentachlorophenol	2.2	U	20	2.2	ug/L		08/29/16 14:39	09/05/16 08:29	1
Bis(2-chloroethyl)ether	0.12	U	1.0	0.12	ug/L		08/29/16 14:39	09/05/16 08:29	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/29/16 14:39	09/05/16 08:29	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/29/16 14:39	09/05/16 08:29	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/29/16 14:39	09/05/16 08:29	1
Isophorone	0.67	U	10	0.67	ug/L		08/29/16 14:39	09/05/16 08:29	1
Naphthalene	0.80	U	10	0.80	ug/L		08/29/16 14:39	09/05/16 08:29	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/29/16 14:39	09/05/16 08:29	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/29/16 14:39	09/05/16 08:29	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/29/16 14:39	09/05/16 08:29	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/29/16 14:39	09/05/16 08:29	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/29/16 14:39	09/05/16 08:29	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/29/16 14:39	09/05/16 08:29	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/29/16 14:39	09/05/16 08:29	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/29/16 14:39	09/05/16 08:29	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/29/16 14:39	09/05/16 08:29	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/29/16 14:39	09/05/16 08:29	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/29/16 14:39	09/05/16 08:29	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 08:29	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/29/16 14:39	09/05/16 08:29	1
Fluorene	0.80	U	10	0.80	ug/L		08/29/16 14:39	09/05/16 08:29	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/29/16 14:39	09/05/16 08:29	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/29/16 14:39	09/05/16 08:29	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 08:29	1
Hexachlorobenzene	0.47	U	1.0	0.47	ug/L		08/29/16 14:39	09/05/16 08:29	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/29/16 14:39	09/05/16 08:29	1
Anthracene	0.57	U	10	0.57	ug/L		08/29/16 14:39	09/05/16 08:29	1
Carbazole	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 08:29	1
Di-n-butyl phthalate	0.82	U	10	0.82	ug/L		08/29/16 14:39	09/05/16 08:29	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 08:29	1
Pyrene	0.83	U	10	0.83	ug/L		08/29/16 14:39	09/05/16 08:29	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/29/16 14:39	09/05/16 08:29	1
Benzo[a]anthracene	0.55	U	1.0	0.55	ug/L		08/29/16 14:39	09/05/16 08:29	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/29/16 14:39	09/05/16 08:29	1
Bis(2-ethylhexyl) phthalate	0.72	U	2.0	0.72	ug/L		08/29/16 14:39	09/05/16 08:29	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/29/16 14:39	09/05/16 08:29	1
Benzo[b]fluoranthene	0.44	U	1.0	0.44	ug/L		08/29/16 14:39	09/05/16 08:29	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/29/16 14:39	09/05/16 08:29	1
Benzo[a]pyrene	0.16	U	1.0	0.16	ug/L		08/29/16 14:39	09/05/16 08:29	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-387456/1-A
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	0.21	U	1.0	0.21	ug/L		08/29/16 14:39	09/05/16 08:29	1
Dibenz(a,h)anthracene	0.090	U	1.0	0.090	ug/L		08/29/16 14:39	09/05/16 08:29	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/29/16 14:39	09/05/16 08:29	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/29/16 14:39	09/05/16 08:29	1
Acetophenone	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 08:29	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/29/16 14:39	09/05/16 08:29	1
Caprolactam	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 08:29	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/29/16 14:39	09/05/16 08:29	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/29/16 14:39	09/05/16 08:29	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 08:29	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/29/16 14:39	09/05/16 08:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*82*		*30 - 130*	*08/29/16 14:39*	*09/05/16 08:29*	*1*
Phenol-d5 (Surr)	*21*		*15 - 110*	*08/29/16 14:39*	*09/05/16 08:29*	*1*
Terphenyl-d14 (Surr)	*89*		*30 - 130*	*08/29/16 14:39*	*09/05/16 08:29*	*1*
2,4,6-Tribromophenol (Surr)	*99*		*15 - 110*	*08/29/16 14:39*	*09/05/16 08:29*	*1*
2-Fluorophenol (Surr)	*34*		*15 - 110*	*08/29/16 14:39*	*09/05/16 08:29*	*1*
2-Fluorobiphenyl	*79*		*30 - 130*	*08/29/16 14:39*	*09/05/16 08:29*	*1*

Lab Sample ID: LCS 460-387456/2-A
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	80.0	28.5		ug/L		36	20 - 160
2-Chlorophenol	80.0	72.0		ug/L		90	70 - 130
2-Methylphenol	80.0	57.4		ug/L		72	70 - 130
4-Methylphenol	80.0	58.9		ug/L		74	20 - 160
2-Nitrophenol	80.0	64.5		ug/L		81	70 - 130
2,4-Dimethylphenol	80.0	68.0		ug/L		85	70 - 130
2,4-Dichlorophenol	80.0	70.0		ug/L		88	70 - 130
4-Chloro-3-methylphenol	80.0	70.8		ug/L		88	20 - 160
2,4,6-Trichlorophenol	80.0	78.1		ug/L		98	70 - 130
2,4,5-Trichlorophenol	80.0	73.9		ug/L		92	20 - 160
2,4-Dinitrotoluene	80.0	76.9		ug/L		96	70 - 130
4-Nitrophenol	160	34.7		ug/L		22	20 - 160
4,6-Dinitro-2-methylphenol	160	122		ug/L		76	20 - 160
Pentachlorophenol	160	136		ug/L		85	20 - 160
Bis(2-chloroethyl)ether	80.0	69.7		ug/L		87	70 - 130
N-Nitrosodi-n-propylamine	80.0	92.1		ug/L		115	70 - 130
Hexachloroethane	80.0	62.6		ug/L		78	20 - 160
Nitrobenzene	80.0	80.3		ug/L		100	70 - 130
Isophorone	80.0	71.6		ug/L		90	70 - 130
Naphthalene	80.0	64.8		ug/L		81	70 - 130
4-Chloroaniline	80.0	72.3		ug/L		90	20 - 160

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-387456/2-A
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorobutadiene	80.0	63.6		ug/L		79	70 - 130
2-Methylnaphthalene	80.0	69.5		ug/L		87	70 - 130
Hexachlorocyclopentadiene	80.0	51.8		ug/L		65	20 - 160
2-Chloronaphthalene	80.0	71.3		ug/L		89	70 - 130
2-Nitroaniline	80.0	82.9		ug/L		104	20 - 160
Dimethyl phthalate	80.0	80.8		ug/L		101	70 - 130
Acenaphthylene	80.0	78.8		ug/L		99	70 - 130
2,6-Dinitrotoluene	80.0	71.8		ug/L		90	70 - 130
3-Nitroaniline	80.0	67.4		ug/L		84	20 - 160
Acenaphthene	80.0	73.3		ug/L		92	70 - 130
Dibenzofuran	80.0	77.0		ug/L		96	70 - 130
2,4-Dinitrophenol	160	91.0		ug/L		57	20 - 160
Diethyl phthalate	80.0	75.7		ug/L		95	70 - 130
4-Chlorophenyl phenyl ether	80.0	76.5		ug/L		96	70 - 130
Fluorene	80.0	79.1		ug/L		99	70 - 130
4-Nitroaniline	80.0	63.2		ug/L		79	20 - 160
N-Nitrosodiphenylamine	80.0	76.3		ug/L		95	70 - 130
4-Bromophenyl phenyl ether	80.0	75.7		ug/L		95	70 - 130
Hexachlorobenzene	80.0	79.4		ug/L		99	70 - 130
Phenanthrene	80.0	75.4		ug/L		94	70 - 130
Anthracene	80.0	76.0		ug/L		95	70 - 130
Carbazole	80.0	77.3		ug/L		97	70 - 130
Di-n-butyl phthalate	80.0	81.4		ug/L		102	70 - 130
Fluoranthene	80.0	78.6		ug/L		98	70 - 130
Pyrene	80.0	76.8		ug/L		96	70 - 130
Butyl benzyl phthalate	80.0	85.9		ug/L		107	70 - 130
Benzo[a]anthracene	80.0	80.4		ug/L		100	70 - 130
Chrysene	80.0	75.8		ug/L		95	70 - 130
Bis(2-ethylhexyl) phthalate	80.0	73.2		ug/L		91	70 - 130
Di-n-octyl phthalate	80.0	76.8		ug/L		96	70 - 130
Benzo[b]fluoranthene	80.0	73.4		ug/L		92	70 - 130
Benzo[k]fluoranthene	80.0	87.8		ug/L		110	70 - 130
Benzo[a]pyrene	80.0	74.0		ug/L		92	70 - 130
Indeno[1,2,3-cd]pyrene	80.0	79.8		ug/L		100	70 - 130
Dibenz(a,h)anthracene	80.0	79.8		ug/L		100	70 - 130
Benzo[g,h,i]perylene	80.0	79.9		ug/L		100	70 - 130
1,1'-Biphenyl	80.0	83.0		ug/L		104	70 - 130
Acetophenone	80.0	88.5		ug/L		111	70 - 130
2,2'-oxybis[1-chloropropane]	80.0	89.3		ug/L		112	70 - 130
1,2,4,5-Tetrachlorobenzene	80.0	67.1		ug/L		84	70 - 130
2,3,4,6-Tetrachlorophenol	80.0	73.9		ug/L		92	70 - 130
3,3'-Dichlorobenzidine	80.0	83.8		ug/L		105	70 - 130
Bis(2-chloroethoxy)methane	80.0	72.5		ug/L		91	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*90*		*30 - 130*
Phenol-d5 (Surr)	*30*		*15 - 110*
Terphenyl-d14 (Surr)	*87*		*30 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-387456/2-A
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387456

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*99*		*15 - 110*
2-Fluorophenol (Surr)	*44*		*15 - 110*
2-Fluorobiphenyl	*90*		*30 - 130*

Lab Sample ID: LCS 460-387456/3-A
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzaldehyde	160	205		ug/L		128	20 - 160
Caprolactam	160	35.5		ug/L		22	20 - 160
Atrazine	160	155		ug/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*96*		*30 - 130*
Phenol-d5 (Surr)	*24*		*15 - 110*
Terphenyl-d14 (Surr)	*96*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*102*		*15 - 110*
2-Fluorophenol (Surr)	*39*		*15 - 110*
2-Fluorobiphenyl	*89*		*30 - 130*

Lab Sample ID: 460-119177-5 MS
Matrix: Water
Analysis Batch: 388683

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA
Prep Batch: 387456

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.43	U	85.1	37.0		ug/L		43	20 - 160
2-Chlorophenol	0.78	U	85.1	83.0		ug/L		97	70 - 130
2-Methylphenol	1.4	U	85.1	70.5		ug/L		83	70 - 130
4-Methylphenol	0.92	U	85.1	60.4		ug/L		71	20 - 160
2-Nitrophenol	0.63	U F2 F1	85.1	3.72	J F1	ug/L		4	70 - 130
2,4-Dimethylphenol	0.96	U	85.1	77.8		ug/L		91	70 - 130
2,4-Dichlorophenol	0.67	U F2	85.1	70.5		ug/L		83	70 - 130
4-Chloro-3-methylphenol	0.81	U	85.1	76.2		ug/L		90	20 - 160
2,4,6-Trichlorophenol	0.56	U	85.1	86.4		ug/L		102	20 - 160
2,4,5-Trichlorophenol	0.52	U	85.1	86.5		ug/L		102	20 - 160
2,4-Dinitrotoluene	1.1	U	85.1	92.8		ug/L		109	70 - 130
4-Nitrophenol	4.9	U F2	170	63.1		ug/L		37	20 - 160
4,6-Dinitro-2-methylphenol	2.1	U	170	183		ug/L		107	20 - 160
Pentachlorophenol	2.3	U	170	210		ug/L		123	20 - 160
Bis(2-chloroethyl)ether	0.13	U	85.1	74.8		ug/L		88	70 - 130
N-Nitrosodi-n-propylamine	0.88	U	85.1	103		ug/L		121	70 - 130
Hexachloroethane	0.095	U	85.1	74.3		ug/L		87	20 - 160
Nitrobenzene	0.52	U	85.1	85.3		ug/L		100	70 - 130
Isophorone	0.71	U	85.1	71.9		ug/L		84	70 - 130
Naphthalene	0.85	U	85.1	70.2		ug/L		83	70 - 130
4-Chloroaniline	0.77	U	85.1	74.6		ug/L		88	20 - 160
Hexachlorobutadiene	0.81	U	85.1	71.7		ug/L		84	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-119177-5 MS | **Client Sample ID: RW-15S(110-120)-082416**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 388683 | **Prep Batch: 387456**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	0.93	U	85.1	80.0		ug/L		94	70 - 130
Hexachlorocyclopentadiene	0.65	U	85.1	69.6		ug/L		82	20 - 160
2-Chloronaphthalene	0.65	U	85.1	98.2		ug/L		115	70 - 130
2-Nitroaniline	0.69	U	85.1	90.2		ug/L		106	20 - 160
Dimethyl phthalate	1.0	U	85.1	88.8		ug/L		104	70 - 130
Acenaphthylene	0.69	U	85.1	92.2		ug/L		108	70 - 130
2,6-Dinitrotoluene	0.93	U	85.1	93.8		ug/L		110	70 - 130
3-Nitroaniline	0.87	U	85.1	67.3		ug/L		79	20 - 160
Acenaphthene	0.93	U	85.1	87.3		ug/L		103	70 - 130
Dibenzofuran	0.90	U	85.1	84.9		ug/L		100	70 - 130
2,4-Dinitrophenol	2.5	U	170	161		ug/L		95	20 - 160
Diethyl phthalate	1.1	U	85.1	88.1		ug/L		103	70 - 130
4-Chlorophenyl phenyl ether	1.0	U	85.1	88.4		ug/L		104	70 - 130
Fluorene	0.85	U	85.1	85.4		ug/L		100	70 - 130
4-Nitroaniline	0.51	U	85.1	71.2		ug/L		84	20 - 160
N-Nitrosodiphenylamine	0.78	U	85.1	92.7		ug/L		109	70 - 130
4-Bromophenyl phenyl ether	1.1	U	85.1	87.9		ug/L		103	70 - 130
Hexachlorobenzene	0.50	U	85.1	99.0		ug/L		116	70 - 130
Phenanthrene	0.69	U	85.1	88.8		ug/L		104	70 - 130
Anthracene	0.60	U	85.1	90.0		ug/L		106	70 - 130
Carbazole	0.90	U	85.1	92.5		ug/L		109	70 - 130
Di-n-butyl phthalate	0.87	U	85.1	98.6		ug/L		116	70 - 130
Fluoranthene	0.76	U	85.1	97.2		ug/L		114	70 - 130
Pyrene	0.88	U	85.1	78.3		ug/L		92	70 - 130
Butyl benzyl phthalate	0.64	U	85.1	82.9		ug/L		97	70 - 130
Benzo[a]anthracene	0.58	U	85.1	83.2		ug/L		98	70 - 130
Chrysene	0.71	U	85.1	89.5		ug/L		105	70 - 130
Bis(2-ethylhexyl) phthalate	0.95	J	85.1	83.4		ug/L		97	70 - 130
Di-n-octyl phthalate	0.73	U	85.1	87.9		ug/L		103	70 - 130
Benzo[b]fluoranthene	0.47	U	85.1	85.7		ug/L		101	70 - 130
Benzo[k]fluoranthene	0.19	U F2	85.1	99.0		ug/L		116	70 - 130
Benzo[a]pyrene	0.17	U	85.1	86.9		ug/L		102	70 - 130
Indeno[1,2,3-cd]pyrene	0.22	U	85.1	96.4		ug/L		113	70 - 130
Dibenz(a,h)anthracene	0.095	U	85.1	98.6		ug/L		116	70 - 130
Benzo[g,h,i]perylene	0.79	U	85.1	90.6		ug/L		106	70 - 130
1,1'-Biphenyl	0.67	U	85.1	98.1		ug/L		115	70 - 130
Acetophenone	1.1	U	85.1	98.4		ug/L		116	70 - 130
Benzaldehyde	0.91	U	170	168		ug/L		99	20 - 160
Caprolactam	1.1	U	170	40.5		ug/L		24	20 - 160
Atrazine	0.82	U	170	179		ug/L		105	70 - 130
2,2'-oxybis[1-chloropropane]	0.99	U	85.1	95.0		ug/L		112	70 - 130
1,2,4,5-Tetrachlorobenzene	0.46	U	85.1	87.9		ug/L		103	70 - 130
2,3,4,6-Tetrachlorophenol	0.73	U	85.1	92.6		ug/L		109	70 - 130
3,3'-Dichlorobenzidine	1.1	U	85.1	69.8		ug/L		82	70 - 130
Bis(2-chloroethoxy)methane	0.73	U	85.1	80.2		ug/L		94	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*89*		*30 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-119177-5 MS
Matrix: Water
Analysis Batch: 388683

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA
Prep Batch: 387456

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Phenol-d5 (Surr)	*37*		*15 - 110*
Terphenyl-d14 (Surr)	*87*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*102*		*15 - 110*
2-Fluorophenol (Surr)	*48*		*15 - 110*
2-Fluorobiphenyl	*100*		*30 - 130*

Lab Sample ID: 460-119177-5 MSD
Matrix: Water
Analysis Batch: 388683

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA
Prep Batch: 387456

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.43	U	84.7	36.3		ug/L		43	20 - 160	2	20
2-Chlorophenol	0.78	U	84.7	82.0		ug/L		97	70 - 130	1	20
2-Methylphenol	1.4	U	84.7	69.5		ug/L		82	70 - 130	1	20
4-Methylphenol	0.92	U	84.7	59.9		ug/L		71	20 - 160	1	20
2-Nitrophenol	0.63	U F2 F1	84.7	82.0	F2	ug/L		97	70 - 130	183	20
2,4-Dimethylphenol	0.96	U	84.7	73.7		ug/L		87	70 - 130	5	20
2,4-Dichlorophenol	0.67	U F2	84.7	88.2	F2	ug/L		104	70 - 130	22	20
4-Chloro-3-methylphenol	0.81	U	84.7	79.6		ug/L		94	20 - 160	4	20
2,4,6-Trichlorophenol	0.56	U	84.7	80.0		ug/L		94	20 - 160	8	20
2,4,5-Trichlorophenol	0.52	U	84.7	81.7		ug/L		96	20 - 160	6	20
2,4-Dinitrotoluene	1.1	U	84.7	84.7		ug/L		100	70 - 130	9	20
4-Nitrophenol	4.9	U F2	169	50.6	F2	ug/L		30	20 - 160	22	20
4,6-Dinitro-2-methylphenol	2.1	U	169	164		ug/L		97	20 - 160	11	20
Pentachlorophenol	2.3	U	169	185		ug/L		109	20 - 160	12	20
Bis(2-chloroethyl)ether	0.13	U	84.7	75.8		ug/L		89	70 - 130	1	20
N-Nitrosodi-n-propylamine	0.88	U	84.7	105		ug/L		123	70 - 130	2	20
Hexachloroethane	0.095	U	84.7	85.6		ug/L		101	20 - 160	14	20
Nitrobenzene	0.52	U	84.7	88.3		ug/L		104	70 - 130	3	20
Isophorone	0.71	U	84.7	75.5		ug/L		89	70 - 130	5	20
Naphthalene	0.85	U	84.7	77.4		ug/L		91	70 - 130	10	20
4-Chloroaniline	0.77	U	84.7	72.3		ug/L		85	20 - 160	3	20
Hexachlorobutadiene	0.81	U	84.7	79.6		ug/L		94	70 - 130	10	20
2-Methylnaphthalene	0.93	U	84.7	80.2		ug/L		95	70 - 130	0	20
Hexachlorocyclopentadiene	0.65	U	84.7	67.4		ug/L		79	20 - 160	3	20
2-Chloronaphthalene	0.65	U	84.7	89.7		ug/L		106	70 - 130	9	20
2-Nitroaniline	0.69	U	84.7	84.7		ug/L		100	20 - 160	6	20
Dimethyl phthalate	1.0	U	84.7	78.7		ug/L		93	70 - 130	12	20
Acenaphthylene	0.69	U	84.7	89.0		ug/L		105	70 - 130	4	20
2,6-Dinitrotoluene	0.93	U	84.7	88.5		ug/L		104	70 - 130	6	20
3-Nitroaniline	0.87	U	84.7	64.3		ug/L		76	20 - 160	5	20
Acenaphthene	0.93	U	84.7	80.5		ug/L		95	70 - 130	8	20
Dibenzofuran	0.90	U	84.7	83.7		ug/L		99	70 - 130	1	20
2,4-Dinitrophenol	2.5	U	169	141		ug/L		83	20 - 160	13	20
Diethyl phthalate	1.1	U	84.7	78.9		ug/L		93	70 - 130	11	20
4-Chlorophenyl phenyl ether	1.0	U	84.7	83.7		ug/L		99	70 - 130	5	20
Fluorene	0.85	U	84.7	85.3		ug/L		101	70 - 130	0	20
4-Nitroaniline	0.51	U	84.7	67.7		ug/L		80	20 - 160	5	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-119177-5 MSD
Matrix: Water
Analysis Batch: 388683

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA
Prep Batch: 387456

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Nitrosodiphenylamine	0.78	U	84.7	80.3		ug/L		95	70 - 130	14	20
4-Bromophenyl phenyl ether	1.1	U	84.7	82.6		ug/L		97	70 - 130	6	20
Hexachlorobenzene	0.50	U	84.7	88.0		ug/L		104	70 - 130	12	20
Phenanthrene	0.69	U	84.7	87.0		ug/L		103	70 - 130	2	20
Anthracene	0.60	U	84.7	86.9		ug/L		103	70 - 130	3	20
Carbazole	0.90	U	84.7	82.9		ug/L		98	70 - 130	11	20
Di-n-butyl phthalate	0.87	U	84.7	91.8		ug/L		108	70 - 130	7	20
Fluoranthene	0.76	U	84.7	91.0		ug/L		107	70 - 130	7	20
Pyrene	0.88	U	84.7	76.1		ug/L		90	70 - 130	3	20
Butyl benzyl phthalate	0.64	U	84.7	83.2		ug/L		98	70 - 130	0	20
Benzo[a]anthracene	0.58	U	84.7	85.6		ug/L		101	70 - 130	3	20
Chrysene	0.71	U	84.7	80.0		ug/L		94	70 - 130	11	20
Bis(2-ethylhexyl) phthalate	0.95	J	84.7	85.4		ug/L		100	70 - 130	2	20
Di-n-octyl phthalate	0.73	U	84.7	79.7		ug/L		94	70 - 130	10	20
Benzo[b]fluoranthene	0.47	U	84.7	82.8		ug/L		98	70 - 130	3	20
Benzo[k]fluoranthene	0.19	U F2	84.7	79.9	F2	ug/L		94	70 - 130	21	20
Benzo[a]pyrene	0.17	U	84.7	80.1		ug/L		95	70 - 130	8	20
Indeno[1,2,3-cd]pyrene	0.22	U	84.7	88.3		ug/L		104	70 - 130	9	20
Dibenz(a,h)anthracene	0.095	U	84.7	85.6		ug/L		101	70 - 130	14	20
Benzo[g,h,i]perylene	0.79	U	84.7	84.5		ug/L		100	70 - 130	7	20
1,1'-Biphenyl	0.67	U	84.7	91.2		ug/L		108	70 - 130	7	20
Acetophenone	1.1	U	84.7	102		ug/L		120	70 - 130	4	20
Benzaldehyde	0.91	U	169	169		ug/L		100	20 - 160	1	20
Caprolactam	1.1	U	169	36.2		ug/L		21	20 - 160	11	20
Atrazine	0.82	U	169	175		ug/L		104	70 - 130	2	20
2,2'-oxybis[1-chloropropane]	0.99	U	84.7	101		ug/L		119	70 - 130	6	20
1,2,4,5-Tetrachlorobenzene	0.46	U	84.7	84.0		ug/L		99	70 - 130	5	20
2,3,4,6-Tetrachlorophenol	0.73	U	84.7	84.6		ug/L		100	70 - 130	9	20
3,3'-Dichlorobenzidine	1.1	U	84.7	66.4		ug/L		78	70 - 130	5	20
Bis(2-chloroethoxy)methane	0.73	U	84.7	83.1		ug/L		98	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*93*		*30 - 130*
Phenol-d5 (Surr)	*36*		*15 - 110*
Terphenyl-d14 (Surr)	*83*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*111*	*X*	*15 - 110*
2-Fluorophenol (Surr)	*51*		*15 - 110*
2-Fluorobiphenyl	*93*		*30 - 130*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 460-387456/1-A
Matrix: Water
Analysis Batch: 388366

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/29/16 14:39	09/04/16 13:26	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/29/16 14:39	09/04/16 13:26	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 460-387456/1-A
Matrix: Water
Analysis Batch: 388366

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/29/16 14:39	09/04/16 13:26	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/29/16 14:39	09/04/16 13:26	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/29/16 14:39	09/04/16 13:26	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		08/29/16 14:39	09/04/16 13:26	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/29/16 14:39	09/04/16 13:26	1
N-Nitrosodimethylamine	0.051	U	0.20	0.051	ug/L		08/29/16 14:39	09/04/16 13:26	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/29/16 14:39	09/04/16 13:26	1

Lab Sample ID: LCS 460-387456/4-A
Matrix: Water
Analysis Batch: 388366

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.800	0.581		ug/L		73	70 - 130
Benzo[a]pyrene	0.800	0.540	*	ug/L		68	70 - 130
Benzo[b]fluoranthene	0.800	0.548	*	ug/L		69	70 - 130
Bis(2-chloroethyl)ether	0.800	0.689		ug/L		86	70 - 130
Dibenz(a,h)anthracene	0.800	0.544	*	ug/L		68	70 - 130
Hexachlorobenzene	0.800	0.616		ug/L		77	70 - 130
Indeno[1,2,3-cd]pyrene	0.800	0.558		ug/L		70	70 - 130
Pentachlorophenol	1.60	0.577		ug/L		36	20 - 160

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-387586/1-A
Matrix: Water
Analysis Batch: 387810

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387586

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 09:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*100*		*30 - 150*	*08/30/16 08:03*	*08/31/16 09:43*	*1*
Tetrachloro-m-xylene	*99*		*30 - 150*	*08/30/16 08:03*	*08/31/16 09:43*	*1*
DCB Decachlorobiphenyl	*102*		*30 - 150*	*08/30/16 08:03*	*08/31/16 09:43*	*1*
DCB Decachlorobiphenyl	*80*		*30 - 150*	*08/30/16 08:03*	*08/31/16 09:43*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 460-387586/2-A
Matrix: Water
Analysis Batch: 387810

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387586

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			4.00	4.91		ug/L		123	40 - 140		
PCB-1016			4.00	5.00		ug/L		125	40 - 140		
PCB-1260			4.00	4.51		ug/L		113	40 - 140		
PCB-1260			4.00	4.67		ug/L		117	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*131*		*30 - 150*
Tetrachloro-m-xylene	*128*		*30 - 150*
DCB Decachlorobiphenyl	*100*		*30 - 150*
DCB Decachlorobiphenyl	*92*		*30 - 150*

Lab Sample ID: 460-119177-5 MS
Matrix: Water
Analysis Batch: 387810

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA
Prep Batch: 387586

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016	0.10	U	4.00	4.20		ug/L		105	40 - 140		
PCB-1016	0.10	U	4.00	4.15		ug/L		104	40 - 140		
PCB-1260	0.089	U	4.00	4.27		ug/L		107	40 - 140		
PCB-1260	0.089	U	4.00	3.69		ug/L		92	40 - 140		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*115*		*30 - 150*
Tetrachloro-m-xylene	*100*		*30 - 150*
DCB Decachlorobiphenyl	*94*		*30 - 150*
DCB Decachlorobiphenyl	*79*		*30 - 150*

Lab Sample ID: 460-119177-5 MSD
Matrix: Water
Analysis Batch: 387810

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA
Prep Batch: 387586

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	0.10	U	4.35	3.94		ug/L		91	40 - 140	5	20
PCB-1016	0.10	U	4.35	4.84		ug/L		111	40 - 140	14	20
PCB-1260	0.089	U	4.35	3.97		ug/L		91	40 - 140	7	20
PCB-1260	0.089	U	4.35	4.33		ug/L		100	40 - 140	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*99*		*30 - 150*
Tetrachloro-m-xylene	*114*		*30 - 150*
DCB Decachlorobiphenyl	*84*		*30 - 150*
DCB Decachlorobiphenyl	*91*		*30 - 150*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 460-389346/3
Matrix: Water
Analysis Batch: 389346

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			09/08/16 21:01	1
Sulfate	0.11	U	0.60	0.11	mg/L			09/08/16 21:01	1

Lab Sample ID: LCS 460-389346/44
Matrix: Water
Analysis Batch: 389346

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bromide			5.00	5.035		mg/L		101	90 - 110		
Chloride			1.50	1.472		mg/L		98	90 - 110		
Fluoride			1.00	0.981		mg/L		98	90 - 110		
Sulfate			7.50	7.252		mg/L		97	90 - 110		

Lab Sample ID: LCSD 460-389346/45
Matrix: Water
Analysis Batch: 389346

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide			5.00	4.960		mg/L		99	90 - 110	1	15
Chloride			1.50	1.457		mg/L		97	90 - 110	1	15
Fluoride			1.00	0.988		mg/L		99	90 - 110	1	15
Sulfate			7.50	7.282		mg/L		97	90 - 110	0	15

Method: 9056A - Anions, Ion Chromatography - DL

Lab Sample ID: 460-119177-5 DU
Matrix: Water
Analysis Batch: 389346

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chloride - DL	12.6	D		13.45		mg/L				7	15

Method: 9056A - Anions, Ion Chromatography - DL2

Lab Sample ID: 460-119177-5 DU
Matrix: Water
Analysis Batch: 389346

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate - DL2	138	D		139.0		mg/L				1	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: LCS 460-387304/2-A
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387304

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	5.00	5.55		ug/L		111	80 - 120
Arsenic	10.0	10.10		ug/L		101	80 - 120
Barium	10.0	10.22		ug/L		102	80 - 120
Beryllium	5.00	4.89		ug/L		98	80 - 120
Cadmium	5.00	4.75		ug/L		95	80 - 120
Cobalt	5.00	4.76		ug/L		95	80 - 120
Chromium	10.0	9.71		ug/L		97	80 - 120
Copper	10.0	9.80		ug/L		98	80 - 120
Manganese	50.0	51.51		ug/L		103	80 - 120
Nickel	10.0	9.95		ug/L		100	80 - 120
Lead	5.00	4.80		ug/L		96	80 - 120
Antimony	5.00	4.70		ug/L		94	80 - 120
Selenium	10.0	10.12		ug/L		101	80 - 120
Vanadium	10.0	9.47		ug/L		95	80 - 120
Zinc	50.0	49.64		ug/L		99	80 - 120
Aluminum	500	472.3		ug/L		94	80 - 120
Sodium	500	471.6		ug/L		94	80 - 120
Magnesium	500	473.3		ug/L		95	80 - 120
Potassium	500	501.6		ug/L		100	80 - 120
Calcium	500	518.4		ug/L		104	80 - 120
Iron	500	510.4		ug/L		102	80 - 120
Thallium	4.00	3.82		ug/L		96	80 - 120

Lab Sample ID: MB 460-388515/1-A ^2
Matrix: Water
Analysis Batch: 388832

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/02/16 20:27	09/03/16 21:54	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/02/16 20:27	09/03/16 21:54	2
Barium	1.2	U	4.0	1.2	ug/L		09/02/16 20:27	09/03/16 21:54	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/02/16 20:27	09/03/16 21:54	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/02/16 20:27	09/03/16 21:54	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/02/16 20:27	09/03/16 21:54	2
Chromium	1.3	U	4.0	1.3	ug/L		09/02/16 20:27	09/03/16 21:54	2
Copper	1.4	U	4.0	1.4	ug/L		09/02/16 20:27	09/03/16 21:54	2
Manganese	2.5	U	8.0	2.5	ug/L		09/02/16 20:27	09/03/16 21:54	2
Nickel	1.4	U	4.0	1.4	ug/L		09/02/16 20:27	09/03/16 21:54	2
Lead	0.38	U	1.2	0.38	ug/L		09/02/16 20:27	09/03/16 21:54	2
Antimony	0.62	U	2.0	0.62	ug/L		09/02/16 20:27	09/03/16 21:54	2
Selenium	0.73	U	10.0	0.73	ug/L		09/02/16 20:27	09/03/16 21:54	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/02/16 20:27	09/03/16 21:54	2
Zinc	7.0	U	16.0	7.0	ug/L		09/02/16 20:27	09/03/16 21:54	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/02/16 20:27	09/03/16 21:54	2
Sodium	69.0	U	200	69.0	ug/L		09/02/16 20:27	09/03/16 21:54	2
Magnesium	63.6	U	200	63.6	ug/L		09/02/16 20:27	09/03/16 21:54	2
Potassium	91.4	U	200	91.4	ug/L		09/02/16 20:27	09/03/16 21:54	2
Calcium	60.5	U	200	60.5	ug/L		09/02/16 20:27	09/03/16 21:54	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-388515/1-A ^2
Matrix: Water
Analysis Batch: 388832

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	42.4	U	120	42.4	ug/L		09/02/16 20:27	09/03/16 21:54	2
Thallium	0.26	U	0.80	0.26	ug/L		09/02/16 20:27	09/03/16 21:54	2

Lab Sample ID: LCS 460-388515/2-A ^2
Matrix: Water
Analysis Batch: 388832

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388515

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	47.26		ug/L		95	80 - 120
Barium	50.0	51.45		ug/L		103	80 - 120
Beryllium	25.0	26.39		ug/L		106	80 - 120
Cadmium	25.0	25.11		ug/L		100	80 - 120
Cobalt	25.0	25.53		ug/L		102	80 - 120
Chromium	50.0	51.83		ug/L		104	80 - 120
Copper	50.0	51.61		ug/L		103	80 - 120
Manganese	250	270.6		ug/L		108	80 - 120
Nickel	50.0	50.95		ug/L		102	80 - 120
Lead	25.0	25.69		ug/L		103	80 - 120
Antimony	25.0	25.69		ug/L		103	80 - 120
Selenium	50.0	47.03		ug/L		94	80 - 120
Vanadium	50.0	50.65		ug/L		101	80 - 120
Zinc	250	266.7		ug/L		107	80 - 120
Aluminum	2500	2569		ug/L		103	80 - 120
Sodium	2500	2743		ug/L		110	80 - 120
Magnesium	2500	2567		ug/L		103	80 - 120
Potassium	2500	2530		ug/L		101	80 - 120
Iron	2500	2718		ug/L		109	80 - 120
Thallium	20.0	19.89		ug/L		99	80 - 120

Lab Sample ID: LCS 460-388515/2-A ^2
Matrix: Water
Analysis Batch: 388832

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388515

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	25.80		ug/L		103	80 - 120

Lab Sample ID: LCS 460-388515/2-A ^2
Matrix: Water
Analysis Batch: 389269

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388515

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	2500	2714		ug/L		109	80 - 120

Lab Sample ID: 460-119177-5 MS
Matrix: Water
Analysis Batch: 388832

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA
Prep Batch: 388515

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.3	U	25.0	24.71		ug/L			

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119177-5 MS
Matrix: Water
Analysis Batch: 388832

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA
Prep Batch: 388515

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	12.7		50.0	59.77		ug/L					
Barium	9.6		50.0	59.75		ug/L					
Beryllium	0.24	U	25.0	26.55		ug/L					
Cadmium	0.71	U	25.0	24.63		ug/L					
Cobalt	1.3	U	25.0	25.15		ug/L					
Chromium	1.4	J	50.0	51.39		ug/L					
Copper	1.9	J	50.0	50.34		ug/L					
Manganese	2.5	U	250	260.4		ug/L					
Nickel	1.8	J	50.0	50.50		ug/L					
Lead	0.58	J	25.0	26.16		ug/L					
Antimony	0.62	U	25.0	26.39		ug/L					
Selenium	1.4	J	50.0	47.42		ug/L					
Vanadium	20.0		50.0	69.56		ug/L					
Zinc	7.0	U	250	251.6		ug/L					
Aluminum	72.0		2500	2593		ug/L					
Sodium	26200		2500	28490		ug/L					
Magnesium	2150		2500	4623		ug/L					
Potassium	9600		2500	12260		ug/L					
Calcium	63600		2500	65750		ug/L					
Iron	42.4	U	2500	2630		ug/L					
Thallium	0.26	U	20.0	20.04		ug/L					

Lab Sample ID: 460-119177-5 DU
Matrix: Water
Analysis Batch: 388832

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA
Prep Batch: 388515

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Silver	1.3	U		1.3	U	ug/L					
Arsenic	12.7			13.40		ug/L					
Barium	9.6			10.01		ug/L					
Beryllium	0.24	U		0.24	U	ug/L					
Cadmium	0.71	U		0.71	U	ug/L					
Cobalt	1.3	U		1.3	U	ug/L					
Chromium	1.4	J		1.43	J	ug/L					
Copper	1.9	J		1.81	J	ug/L					
Manganese	2.5	U		2.5	U	ug/L					
Nickel	1.8	J		1.93	J	ug/L					
Lead	0.58	J		0.558	J	ug/L					
Antimony	0.62	U		0.62	U	ug/L					
Selenium	1.4	J		1.40	J	ug/L					
Vanadium	20.0			20.48		ug/L					
Zinc	7.0	U		7.0	U	ug/L					
Aluminum	72.0			71.66		ug/L					
Sodium	26200			26540		ug/L					
Magnesium	2150			2188		ug/L					
Potassium	9600			9828		ug/L					
Calcium	63600			64050		ug/L					
Iron	42.4	U		42.4	U	ug/L					

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119177-5 DU
Matrix: Water
Analysis Batch: 388832

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA
Prep Batch: 388515

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Thallium	0.26	U		0.26	U	ug/L					

Lab Sample ID: MB 460-387299/1-B
Matrix: Water
Analysis Batch: 388293

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 387304

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.64	U	1.0	0.64	ug/L		08/28/16 19:06	09/02/16 07:07	1
Arsenic	0.32	U	1.0	0.32	ug/L		08/28/16 19:06	09/02/16 07:07	1
Barium	0.61	U	2.0	0.61	ug/L		08/28/16 19:06	09/02/16 07:07	1
Beryllium	0.12	U	0.40	0.12	ug/L		08/28/16 19:06	09/02/16 07:07	1
Cadmium	0.36	U	1.0	0.36	ug/L		08/28/16 19:06	09/02/16 07:07	1
Cobalt	0.65	U	2.0	0.65	ug/L		08/28/16 19:06	09/02/16 07:07	1
Chromium	0.66	U	2.0	0.66	ug/L		08/28/16 19:06	09/02/16 07:07	1
Copper	0.68	U	2.0	0.68	ug/L		08/28/16 19:06	09/02/16 07:07	1
Manganese	1.2	U	4.0	1.2	ug/L		08/28/16 19:06	09/02/16 07:07	1
Nickel	0.68	U	2.0	0.68	ug/L		08/28/16 19:06	09/02/16 07:07	1
Lead	0.19	U	0.60	0.19	ug/L		08/28/16 19:06	09/02/16 07:07	1
Antimony	0.31	U	1.0	0.31	ug/L		08/28/16 19:06	09/02/16 07:07	1
Selenium	0.37	U	5.0	0.37	ug/L		08/28/16 19:06	09/02/16 07:07	1
Vanadium	0.95	U	2.0	0.95	ug/L		08/28/16 19:06	09/02/16 07:07	1
Zinc	3.5	U	8.0	3.5	ug/L		08/28/16 19:06	09/02/16 07:07	1
Aluminum	9.1	U	20.0	9.1	ug/L		08/28/16 19:06	09/02/16 07:07	1
Sodium	34.5	U	100	34.5	ug/L		08/28/16 19:06	09/02/16 07:07	1
Magnesium	31.8	U	100	31.8	ug/L		08/28/16 19:06	09/02/16 07:07	1
Potassium	45.7	U	100	45.7	ug/L		08/28/16 19:06	09/02/16 07:07	1
Calcium	30.3	U	100	30.3	ug/L		08/28/16 19:06	09/02/16 07:07	1
Iron	21.2	U	60.0	21.2	ug/L		08/28/16 19:06	09/02/16 07:07	1
Thallium	0.13	U	0.40	0.13	ug/L		08/28/16 19:06	09/02/16 07:07	1

Lab Sample ID: 460-119177-5 MS
Matrix: Water
Analysis Batch: 388293

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Dissolved
Prep Batch: 387304

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Silver	1.3	U	10.0	7.97		ug/L		80	75 - 125		
Arsenic	7.8		20.0	26.72		ug/L		95	75 - 125		
Barium	7.6		20.0	27.46		ug/L		99	75 - 125		
Beryllium	0.24	U	10.0	9.61		ug/L		96	75 - 125		
Cadmium	0.71	U	10.0	9.34		ug/L		93	75 - 125		
Cobalt	1.3	U	10.0	9.65		ug/L		97	75 - 125		
Chromium	1.3	U	20.0	19.37		ug/L		97	75 - 125		
Copper	1.4	U	20.0	19.40		ug/L		97	75 - 125		
Manganese	2.5	U	100	101.6		ug/L		102	75 - 125		
Nickel	2.6	J	20.0	21.07		ug/L		92	75 - 125		
Lead	0.38	U	10.0	9.47		ug/L		95	75 - 125		
Antimony	0.62	U	10.0	8.44		ug/L		84	75 - 125		
Selenium	2.1	J	20.0	20.96		ug/L		94	75 - 125		
Vanadium	24.9		20.0	44.22		ug/L		97	75 - 125		

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119177-5 MS
Matrix: Water
Analysis Batch: 388293

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Dissolved
Prep Batch: 387304

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	7.0	U	100	98.45		ug/L		98	75 - 125
Aluminum	50.7		1000	959.7		ug/L		91	75 - 125
Sodium	32500		1000	33690	4	ug/L		121	75 - 125
Magnesium	1480		1000	2401		ug/L		92	75 - 125
Potassium	12200		1000	13130	4	ug/L		97	75 - 125
Calcium	35100		1000	36220	4	ug/L		117	75 - 125
Iron	42.4	U	1000	1007		ug/L		101	75 - 125
Thallium	0.26	U	8.00	7.68		ug/L		96	75 - 125

Lab Sample ID: 460-119177-5 DU
Matrix: Water
Analysis Batch: 388293

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Dissolved
Prep Batch: 387304

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.3	U	1.3	U	ug/L		NC	20
Arsenic	7.8		7.80		ug/L		0.2	20
Barium	7.6		7.41		ug/L		2	20
Beryllium	0.24	U	0.24	U	ug/L		NC	20
Cadmium	0.71	U	0.71	U	ug/L		NC	20
Cobalt	1.3	U	1.3	U	ug/L		NC	20
Chromium	1.3	U	1.3	U	ug/L		NC	20
Copper	1.4	U	1.4	U	ug/L		NC	20
Manganese	2.5	U	2.5	U	ug/L		NC	20
Nickel	2.6	J	2.42	J	ug/L		7	20
Lead	0.38	U	0.38	U	ug/L		NC	20
Antimony	0.62	U	0.62	U	ug/L		NC	20
Selenium	2.1	J	2.06	J	ug/L		0.5	20
Vanadium	24.9		25.04		ug/L		0.6	20
Zinc	7.0	U	7.0	U	ug/L		NC	20
Aluminum	50.7		36.22	J F5	ug/L		33	20
Sodium	32500		33080		ug/L		2	20
Magnesium	1480		1496		ug/L		0.8	20
Potassium	12200		12140		ug/L		0.1	20
Calcium	35100		35210		ug/L		0.5	20
Iron	42.4	U	42.4	U	ug/L		NC	20
Thallium	0.26	U	0.26	U	ug/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-387884/1-A
Matrix: Water
Analysis Batch: 387957

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387884

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		08/31/16 12:26	08/31/16 15:54	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 460-387884/2-A
Matrix: Water
Analysis Batch: 387957

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387884

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			1.00	0.981		ug/L		98	80 - 120		

Lab Sample ID: 460-119177-5 MS
Matrix: Water
Analysis Batch: 387957

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA
Prep Batch: 387884

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.17	U	1.00	0.953		ug/L		95	75 - 125		

Lab Sample ID: 460-119177-5 DU
Matrix: Water
Analysis Batch: 387957

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA
Prep Batch: 387884

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Mercury	0.17	U		0.17	U	ug/L				NC	20

Lab Sample ID: LCS 460-388137/2-A
Matrix: Water
Analysis Batch: 388212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388137

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			1.00	1.11		ug/L		111	80 - 120		

Lab Sample ID: LCS 460-388822/2-A
Matrix: Water
Analysis Batch: 388881

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388822

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			1.00	1.08		ug/L		108	80 - 120		

Lab Sample ID: MB 460-387697/1-B
Matrix: Water
Analysis Batch: 388212

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 388137

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:55	09/01/16 15:29	1

Lab Sample ID: 460-119177-5 MS
Matrix: Water
Analysis Batch: 388212

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Dissolved
Prep Batch: 388137

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.17	U	1.00	1.12		ug/L		112	75 - 125		

Lab Sample ID: 460-119177-5 DU
Matrix: Water
Analysis Batch: 388212

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Dissolved
Prep Batch: 388137

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Mercury	0.17	U		0.17	U	ug/L				NC	20

Lab Sample ID: MB 460-388209/1-B
Matrix: Water
Analysis Batch: 388881

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 388822

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/06/16 11:56	09/06/16 14:27	1

Lab Sample ID: 460-119189-D-9-J MS
Matrix: Water
Analysis Batch: 388881

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 388822

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.17	U	1.00	1.05		ug/L		105	75 - 125

Lab Sample ID: 460-119189-A-9-B DU
Matrix: Water
Analysis Batch: 388881

Client Sample ID: Duplicate
Prep Type: Dissolved
Prep Batch: 388822

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.17	U	0.17	U	ug/L		NC	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 460-388799/1-A
Matrix: Water
Analysis Batch: 388866

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388799

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/06/16 09:49	09/06/16 14:44	1

Lab Sample ID: HLCS 460-388799/3-A
Matrix: Water
Analysis Batch: 388866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388799

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.200	0.196		mg/L		98	80 - 120

Lab Sample ID: LLCS 460-388799/2-A
Matrix: Water
Analysis Batch: 388866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388799

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.104		mg/L		104	80 - 120

Lab Sample ID: 460-119177-5 MS
Matrix: Water
Analysis Batch: 388866

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA
Prep Batch: 388799

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0020	U	0.200	0.185		mg/L		93	75 - 125

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: 460-119177-5 MSD
Matrix: Water
Analysis Batch: 388866

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA
Prep Batch: 388799

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0020	U	0.200	0.196		mg/L		98	75 - 125	6	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 460-389106/1
Matrix: Water
Analysis Batch: 389106

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	5.0	U	5.0	5.0	mg/L			09/07/16 17:42	1

Lab Sample ID: LCSSRM 460-389106/2
Matrix: Water
Analysis Batch: 389106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	44.1	46.23		mg/L		104.8	90.5 - 107.9

Lab Sample ID: 460-119177-5 DU
Matrix: Water
Analysis Batch: 389106

Client Sample ID: RW-15S(110-120)-082416
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	U	mg/L		NC	17
Alkalinity	40.2		38.19		mg/L		5	17

GC/MS VOA

Analysis Batch: 387388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-1	TB-07-082416	Total/NA	Water	8260C	
460-119177-2	FB-04-082416	Total/NA	Water	8260C	
460-119177-3	DUP-04-082416	Total/NA	Water	8260C	
460-119177-4	RW-3-082416	Total/NA	Water	8260C	
460-119177-5	RW-15S(110-120)-082416	Total/NA	Water	8260C	
460-119177-6	RW-15D(127-137)-082416	Total/NA	Water	8260C	
460-119177-7	RW-4(333-343)-082416	Total/NA	Water	8260C	
460-119177-8	RW-4(393-403)-082416	Total/NA	Water	8260C	
460-119177-9	RW-4A(113-123)-082416	Total/NA	Water	8260C	
MB 460-387388/8	Method Blank	Total/NA	Water	8260C	
LCS 460-387388/4	Lab Control Sample	Total/NA	Water	8260C	
460-119177-5 MS	RW-15S(110-120)-082416	Total/NA	Water	8260C	
460-119177-5 MSD	RW-15S(110-120)-082416	Total/NA	Water	8260C	

Analysis Batch: 387733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-1	TB-07-082416	Total/NA	Water	8260C SIM	
460-119177-2	FB-04-082416	Total/NA	Water	8260C SIM	
460-119177-3	DUP-04-082416	Total/NA	Water	8260C SIM	
460-119177-4	RW-3-082416	Total/NA	Water	8260C SIM	
460-119177-6	RW-15D(127-137)-082416	Total/NA	Water	8260C SIM	
MB 460-387733/8	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-387733/4	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 460-387733/5	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 387932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-5	RW-15S(110-120)-082416	Total/NA	Water	8260C SIM	
460-119177-7	RW-4(333-343)-082416	Total/NA	Water	8260C SIM	
460-119177-8	RW-4(393-403)-082416	Total/NA	Water	8260C SIM	
460-119177-9	RW-4A(113-123)-082416	Total/NA	Water	8260C SIM	
MB 460-387932/8	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-387932/4	Lab Control Sample	Total/NA	Water	8260C SIM	
460-119177-5 MS	RW-15S(110-120)-082416	Total/NA	Water	8260C SIM	
460-119177-5 MSD	RW-15S(110-120)-082416	Total/NA	Water	8260C SIM	

GC/MS Semi VOA

Prep Batch: 387456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Total/NA	Water	3510C	
460-119177-3	DUP-04-082416	Total/NA	Water	3510C	
460-119177-4	RW-3-082416	Total/NA	Water	3510C	
460-119177-5	RW-15S(110-120)-082416	Total/NA	Water	3510C	
460-119177-6	RW-15D(127-137)-082416	Total/NA	Water	3510C	
460-119177-7	RW-4(333-343)-082416	Total/NA	Water	3510C	
460-119177-8	RW-4(393-403)-082416	Total/NA	Water	3510C	
460-119177-9	RW-4A(113-123)-082416	Total/NA	Water	3510C	
MB 460-387456/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-387456/2-A	Lab Control Sample	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 387456 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-387456/3-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-387456/4-A	Lab Control Sample	Total/NA	Water	3510C	
460-119177-5 MS	RW-15S(110-120)-082416	Total/NA	Water	3510C	
460-119177-5 MSD	RW-15S(110-120)-082416	Total/NA	Water	3510C	

Analysis Batch: 388366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Total/NA	Water	8270D SIM	387456
460-119177-3	DUP-04-082416	Total/NA	Water	8270D SIM	387456
460-119177-4	RW-3-082416	Total/NA	Water	8270D SIM	387456
460-119177-5	RW-15S(110-120)-082416	Total/NA	Water	8270D SIM	387456
460-119177-6	RW-15D(127-137)-082416	Total/NA	Water	8270D SIM	387456
460-119177-7	RW-4(333-343)-082416	Total/NA	Water	8270D SIM	387456
460-119177-8	RW-4(393-403)-082416	Total/NA	Water	8270D SIM	387456
460-119177-9	RW-4A(113-123)-082416	Total/NA	Water	8270D SIM	387456
MB 460-387456/1-A	Method Blank	Total/NA	Water	8270D SIM	387456
LCS 460-387456/4-A	Lab Control Sample	Total/NA	Water	8270D SIM	387456

Analysis Batch: 388683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Total/NA	Water	8270D	387456
460-119177-3	DUP-04-082416	Total/NA	Water	8270D	387456
460-119177-4	RW-3-082416	Total/NA	Water	8270D	387456
460-119177-5	RW-15S(110-120)-082416	Total/NA	Water	8270D	387456
460-119177-6	RW-15D(127-137)-082416	Total/NA	Water	8270D	387456
460-119177-7	RW-4(333-343)-082416	Total/NA	Water	8270D	387456
460-119177-8	RW-4(393-403)-082416	Total/NA	Water	8270D	387456
460-119177-9	RW-4A(113-123)-082416	Total/NA	Water	8270D	387456
MB 460-387456/1-A	Method Blank	Total/NA	Water	8270D	387456
LCS 460-387456/2-A	Lab Control Sample	Total/NA	Water	8270D	387456
LCS 460-387456/3-A	Lab Control Sample	Total/NA	Water	8270D	387456
460-119177-5 MS	RW-15S(110-120)-082416	Total/NA	Water	8270D	387456
460-119177-5 MSD	RW-15S(110-120)-082416	Total/NA	Water	8270D	387456

GC Semi VOA

Prep Batch: 387586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Total/NA	Water	3510C	
460-119177-3	DUP-04-082416	Total/NA	Water	3510C	
460-119177-4	RW-3-082416	Total/NA	Water	3510C	
460-119177-5	RW-15S(110-120)-082416	Total/NA	Water	3510C	
460-119177-6	RW-15D(127-137)-082416	Total/NA	Water	3510C	
460-119177-7	RW-4(333-343)-082416	Total/NA	Water	3510C	
460-119177-8	RW-4(393-403)-082416	Total/NA	Water	3510C	
460-119177-9	RW-4A(113-123)-082416	Total/NA	Water	3510C	
MB 460-387586/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-387586/2-A	Lab Control Sample	Total/NA	Water	3510C	
460-119177-5 MS	RW-15S(110-120)-082416	Total/NA	Water	3510C	
460-119177-5 MSD	RW-15S(110-120)-082416	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Analysis Batch: 387810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Total/NA	Water	8082A	387586
460-119177-3	DUP-04-082416	Total/NA	Water	8082A	387586
460-119177-4	RW-3-082416	Total/NA	Water	8082A	387586
460-119177-5	RW-15S(110-120)-082416	Total/NA	Water	8082A	387586
460-119177-6	RW-15D(127-137)-082416	Total/NA	Water	8082A	387586
460-119177-7	RW-4(333-343)-082416	Total/NA	Water	8082A	387586
460-119177-8	RW-4(393-403)-082416	Total/NA	Water	8082A	387586
460-119177-9	RW-4A(113-123)-082416	Total/NA	Water	8082A	387586
MB 460-387586/1-A	Method Blank	Total/NA	Water	8082A	387586
LCS 460-387586/2-A	Lab Control Sample	Total/NA	Water	8082A	387586
460-119177-5 MS	RW-15S(110-120)-082416	Total/NA	Water	8082A	387586
460-119177-5 MSD	RW-15S(110-120)-082416	Total/NA	Water	8082A	387586

HPLC/IC

Analysis Batch: 389346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Total/NA	Water	9056A	
460-119177-3	DUP-04-082416	Total/NA	Water	9056A	
460-119177-3 - DL	DUP-04-082416	Total/NA	Water	9056A	
460-119177-4	RW-3-082416	Total/NA	Water	9056A	
460-119177-4 - DL	RW-3-082416	Total/NA	Water	9056A	
460-119177-5 - DL	RW-15S(110-120)-082416	Total/NA	Water	9056A	
460-119177-5 - DL2	RW-15S(110-120)-082416	Total/NA	Water	9056A	
460-119177-6 - DL	RW-15D(127-137)-082416	Total/NA	Water	9056A	
460-119177-7 - DL	RW-4(333-343)-082416	Total/NA	Water	9056A	
460-119177-8	RW-4(393-403)-082416	Total/NA	Water	9056A	
460-119177-9	RW-4A(113-123)-082416	Total/NA	Water	9056A	
MB 460-389346/3	Method Blank	Total/NA	Water	9056A	
LCS 460-389346/44	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-389346/45	Lab Control Sample Dup	Total/NA	Water	9056A	
460-119177-5 MS	RW-15S(110-120)-082416	Total/NA	Water	9056A	
460-119177-5 MS - DL	RW-15S(110-120)-082416	Total/NA	Water	9056A	
460-119177-5 MS - DL2	RW-15S(110-120)-082416	Total/NA	Water	9056A	
460-119177-5 MSD	RW-15S(110-120)-082416	Total/NA	Water	9056A	
460-119177-5 MSD - DL	RW-15S(110-120)-082416	Total/NA	Water	9056A	
460-119177-5 MSD - DL2	RW-15S(110-120)-082416	Total/NA	Water	9056A	
460-119177-5 DU	RW-15S(110-120)-082416	Total/NA	Water	9056A	
460-119177-5 DU - DL	RW-15S(110-120)-082416	Total/NA	Water	9056A	
460-119177-5 DU - DL2	RW-15S(110-120)-082416	Total/NA	Water	9056A	

Metals

Filtration Batch: 387299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Dissolved	Water	FILTRATION	
460-119177-3	DUP-04-082416	Dissolved	Water	FILTRATION	
460-119177-4	RW-3-082416	Dissolved	Water	FILTRATION	
460-119177-5	RW-15S(110-120)-082416	Dissolved	Water	FILTRATION	
460-119177-6	RW-15D(127-137)-082416	Dissolved	Water	FILTRATION	

Metals (Continued)

Filtration Batch: 387299 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-7	RW-4(333-343)-082416	Dissolved	Water	FILTRATION	
460-119177-8	RW-4(393-403)-082416	Dissolved	Water	FILTRATION	
460-119177-9	RW-4A(113-123)-082416	Dissolved	Water	FILTRATION	
MB 460-387299/1-B	Method Blank	Dissolved	Water	FILTRATION	
460-119177-5 MS	RW-15S(110-120)-082416	Dissolved	Water	FILTRATION	
460-119177-5 DU	RW-15S(110-120)-082416	Dissolved	Water	FILTRATION	

Prep Batch: 387304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Dissolved	Water	3010A	387299
460-119177-3	DUP-04-082416	Dissolved	Water	3010A	387299
460-119177-4	RW-3-082416	Dissolved	Water	3010A	387299
460-119177-5	RW-15S(110-120)-082416	Dissolved	Water	3010A	387299
460-119177-6	RW-15D(127-137)-082416	Dissolved	Water	3010A	387299
460-119177-7	RW-4(333-343)-082416	Dissolved	Water	3010A	387299
460-119177-8	RW-4(393-403)-082416	Dissolved	Water	3010A	387299
460-119177-9	RW-4A(113-123)-082416	Dissolved	Water	3010A	387299
MB 460-387299/1-B	Method Blank	Dissolved	Water	3010A	387299
LCS 460-387304/2-A	Lab Control Sample	Total/NA	Water	3010A	
460-119177-5 MS	RW-15S(110-120)-082416	Dissolved	Water	3010A	387299
460-119177-5 DU	RW-15S(110-120)-082416	Dissolved	Water	3010A	387299

Filtration Batch: 387697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Dissolved	Water	FILTRATION	
460-119177-3	DUP-04-082416	Dissolved	Water	FILTRATION	
460-119177-4	RW-3-082416	Dissolved	Water	FILTRATION	
460-119177-5	RW-15S(110-120)-082416	Dissolved	Water	FILTRATION	
460-119177-6	RW-15D(127-137)-082416	Dissolved	Water	FILTRATION	
460-119177-7	RW-4(333-343)-082416	Dissolved	Water	FILTRATION	
460-119177-8	RW-4(393-403)-082416	Dissolved	Water	FILTRATION	
MB 460-387697/1-B	Method Blank	Dissolved	Water	FILTRATION	
460-119177-5 MS	RW-15S(110-120)-082416	Dissolved	Water	FILTRATION	
460-119177-5 DU	RW-15S(110-120)-082416	Dissolved	Water	FILTRATION	

Prep Batch: 387884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Total/NA	Water	7470A	
460-119177-3	DUP-04-082416	Total/NA	Water	7470A	
460-119177-4	RW-3-082416	Total/NA	Water	7470A	
460-119177-5	RW-15S(110-120)-082416	Total/NA	Water	7470A	
460-119177-6	RW-15D(127-137)-082416	Total/NA	Water	7470A	
460-119177-7	RW-4(333-343)-082416	Total/NA	Water	7470A	
460-119177-8	RW-4(393-403)-082416	Total/NA	Water	7470A	
460-119177-9	RW-4A(113-123)-082416	Total/NA	Water	7470A	
MB 460-387884/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-387884/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-119177-5 MS	RW-15S(110-120)-082416	Total/NA	Water	7470A	
460-119177-5 DU	RW-15S(110-120)-082416	Total/NA	Water	7470A	

Metals (Continued)

Analysis Batch: 387957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Total/NA	Water	7470A	387884
460-119177-3	DUP-04-082416	Total/NA	Water	7470A	387884
460-119177-4	RW-3-082416	Total/NA	Water	7470A	387884
460-119177-5	RW-15S(110-120)-082416	Total/NA	Water	7470A	387884
460-119177-6	RW-15D(127-137)-082416	Total/NA	Water	7470A	387884
460-119177-7	RW-4(333-343)-082416	Total/NA	Water	7470A	387884
460-119177-8	RW-4(393-403)-082416	Total/NA	Water	7470A	387884
460-119177-9	RW-4A(113-123)-082416	Total/NA	Water	7470A	387884
MB 460-387884/1-A	Method Blank	Total/NA	Water	7470A	387884
LCS 460-387884/2-A	Lab Control Sample	Total/NA	Water	7470A	387884
460-119177-5 MS	RW-15S(110-120)-082416	Total/NA	Water	7470A	387884
460-119177-5 DU	RW-15S(110-120)-082416	Total/NA	Water	7470A	387884

Prep Batch: 388137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Dissolved	Water	7470A	387697
460-119177-3	DUP-04-082416	Dissolved	Water	7470A	387697
460-119177-4	RW-3-082416	Dissolved	Water	7470A	387697
460-119177-5	RW-15S(110-120)-082416	Dissolved	Water	7470A	387697
460-119177-6	RW-15D(127-137)-082416	Dissolved	Water	7470A	387697
460-119177-7	RW-4(333-343)-082416	Dissolved	Water	7470A	387697
460-119177-8	RW-4(393-403)-082416	Dissolved	Water	7470A	387697
MB 460-387697/1-B	Method Blank	Dissolved	Water	7470A	387697
LCS 460-388137/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-119177-5 MS	RW-15S(110-120)-082416	Dissolved	Water	7470A	387697
460-119177-5 DU	RW-15S(110-120)-082416	Dissolved	Water	7470A	387697

Filtration Batch: 388209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-9	RW-4A(113-123)-082416	Dissolved	Water	FILTRATION	
MB 460-388209/1-B	Method Blank	Dissolved	Water	FILTRATION	
460-119189-D-9-J MS	Matrix Spike	Dissolved	Water	FILTRATION	
460-119189-A-9-B DU	Duplicate	Dissolved	Water	FILTRATION	

Analysis Batch: 388212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Dissolved	Water	7470A	388137
460-119177-3	DUP-04-082416	Dissolved	Water	7470A	388137
460-119177-4	RW-3-082416	Dissolved	Water	7470A	388137
460-119177-5	RW-15S(110-120)-082416	Dissolved	Water	7470A	388137
460-119177-6	RW-15D(127-137)-082416	Dissolved	Water	7470A	388137
460-119177-7	RW-4(333-343)-082416	Dissolved	Water	7470A	388137
460-119177-8	RW-4(393-403)-082416	Dissolved	Water	7470A	388137
MB 460-387697/1-B	Method Blank	Dissolved	Water	7470A	388137
LCS 460-388137/2-A	Lab Control Sample	Total/NA	Water	7470A	388137
460-119177-5 MS	RW-15S(110-120)-082416	Dissolved	Water	7470A	388137
460-119177-5 DU	RW-15S(110-120)-082416	Dissolved	Water	7470A	388137

Analysis Batch: 388293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-3	DUP-04-082416	Dissolved	Water	6020A	387304

Metals (Continued)

Analysis Batch: 388293 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-4	RW-3-082416	Dissolved	Water	6020A	387304
460-119177-5	RW-15S(110-120)-082416	Dissolved	Water	6020A	387304
460-119177-6	RW-15D(127-137)-082416	Dissolved	Water	6020A	387304
460-119177-7	RW-4(333-343)-082416	Dissolved	Water	6020A	387304
460-119177-8	RW-4(393-403)-082416	Dissolved	Water	6020A	387304
460-119177-9	RW-4A(113-123)-082416	Dissolved	Water	6020A	387304
MB 460-387299/1-B	Method Blank	Dissolved	Water	6020A	387304
LCS 460-387304/2-A	Lab Control Sample	Total/NA	Water	6020A	387304
460-119177-5 MS	RW-15S(110-120)-082416	Dissolved	Water	6020A	387304
460-119177-5 DU	RW-15S(110-120)-082416	Dissolved	Water	6020A	387304

Prep Batch: 388515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Total/NA	Water	3010A	
460-119177-3	DUP-04-082416	Total/NA	Water	3010A	
460-119177-4	RW-3-082416	Total/NA	Water	3010A	
460-119177-5	RW-15S(110-120)-082416	Total/NA	Water	3010A	
460-119177-6	RW-15D(127-137)-082416	Total/NA	Water	3010A	
460-119177-7	RW-4(333-343)-082416	Total/NA	Water	3010A	
460-119177-8	RW-4(393-403)-082416	Total/NA	Water	3010A	
460-119177-9	RW-4A(113-123)-082416	Total/NA	Water	3010A	
MB 460-388515/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-388515/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-119177-5 MS	RW-15S(110-120)-082416	Total/NA	Water	3010A	
460-119177-5 DU	RW-15S(110-120)-082416	Total/NA	Water	3010A	

Prep Batch: 388822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-9	RW-4A(113-123)-082416	Dissolved	Water	7470A	388209
MB 460-388209/1-B	Method Blank	Dissolved	Water	7470A	388209
LCS 460-388822/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-119189-D-9-J MS	Matrix Spike	Dissolved	Water	7470A	388209
460-119189-A-9-B DU	Duplicate	Dissolved	Water	7470A	388209

Analysis Batch: 388832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Total/NA	Water	6020A	388515
460-119177-3	DUP-04-082416	Total/NA	Water	6020A	388515
460-119177-4	RW-3-082416	Total/NA	Water	6020A	388515
460-119177-5	RW-15S(110-120)-082416	Total/NA	Water	6020A	388515
460-119177-6	RW-15D(127-137)-082416	Total/NA	Water	6020A	388515
460-119177-7	RW-4(333-343)-082416	Total/NA	Water	6020A	388515
460-119177-8	RW-4(393-403)-082416	Total/NA	Water	6020A	388515
460-119177-9	RW-4A(113-123)-082416	Total/NA	Water	6020A	388515
MB 460-388515/1-A ^2	Method Blank	Total/NA	Water	6020A	388515
LCS 460-388515/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	388515
LCS 460-388515/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	388515
460-119177-5 MS	RW-15S(110-120)-082416	Total/NA	Water	6020A	388515
460-119177-5 DU	RW-15S(110-120)-082416	Total/NA	Water	6020A	388515

Metals (Continued)

Analysis Batch: 388881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-9	RW-4A(113-123)-082416	Dissolved	Water	7470A	388822
MB 460-388209/1-B	Method Blank	Dissolved	Water	7470A	388822
LCS 460-388822/2-A	Lab Control Sample	Total/NA	Water	7470A	388822
460-119189-D-9-J MS	Matrix Spike	Dissolved	Water	7470A	388822
460-119189-A-9-B DU	Duplicate	Dissolved	Water	7470A	388822

Analysis Batch: 389269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-388515/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	388515

Analysis Batch: 389607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Dissolved	Water	6020A	387304

General Chemistry

Prep Batch: 388799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Total/NA	Water	9012B	
460-119177-3	DUP-04-082416	Total/NA	Water	9012B	
460-119177-4	RW-3-082416	Total/NA	Water	9012B	
460-119177-5	RW-15S(110-120)-082416	Total/NA	Water	9012B	
460-119177-6	RW-15D(127-137)-082416	Total/NA	Water	9012B	
460-119177-7	RW-4(333-343)-082416	Total/NA	Water	9012B	
460-119177-8	RW-4(393-403)-082416	Total/NA	Water	9012B	
460-119177-9	RW-4A(113-123)-082416	Total/NA	Water	9012B	
MB 460-388799/1-A	Method Blank	Total/NA	Water	9012B	
HLCS 460-388799/3-A	Lab Control Sample	Total/NA	Water	9012B	
LLCS 460-388799/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-119177-5 MS	RW-15S(110-120)-082416	Total/NA	Water	9012B	
460-119177-5 MSD	RW-15S(110-120)-082416	Total/NA	Water	9012B	

Analysis Batch: 388866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Total/NA	Water	9012B	388799
460-119177-3	DUP-04-082416	Total/NA	Water	9012B	388799
460-119177-4	RW-3-082416	Total/NA	Water	9012B	388799
460-119177-5	RW-15S(110-120)-082416	Total/NA	Water	9012B	388799
460-119177-6	RW-15D(127-137)-082416	Total/NA	Water	9012B	388799
460-119177-7	RW-4(333-343)-082416	Total/NA	Water	9012B	388799
460-119177-8	RW-4(393-403)-082416	Total/NA	Water	9012B	388799
460-119177-9	RW-4A(113-123)-082416	Total/NA	Water	9012B	388799
MB 460-388799/1-A	Method Blank	Total/NA	Water	9012B	388799
HLCS 460-388799/3-A	Lab Control Sample	Total/NA	Water	9012B	388799
LLCS 460-388799/2-A	Lab Control Sample	Total/NA	Water	9012B	388799
460-119177-5 MS	RW-15S(110-120)-082416	Total/NA	Water	9012B	388799
460-119177-5 MSD	RW-15S(110-120)-082416	Total/NA	Water	9012B	388799

General Chemistry (Continued)

Analysis Batch: 389106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119177-2	FB-04-082416	Total/NA	Water	SM 2320B	
460-119177-3	DUP-04-082416	Total/NA	Water	SM 2320B	
460-119177-4	RW-3-082416	Total/NA	Water	SM 2320B	
460-119177-5	RW-15S(110-120)-082416	Total/NA	Water	SM 2320B	
460-119177-6	RW-15D(127-137)-082416	Total/NA	Water	SM 2320B	
460-119177-7	RW-4(333-343)-082416	Total/NA	Water	SM 2320B	
460-119177-8	RW-4(393-403)-082416	Total/NA	Water	SM 2320B	
460-119177-9	RW-4A(113-123)-082416	Total/NA	Water	SM 2320B	
MB 460-389106/1	Method Blank	Total/NA	Water	SM 2320B	
LCSSRM 460-389106/2	Lab Control Sample	Total/NA	Water	SM 2320B	
460-119177-5 DU	RW-15S(110-120)-082416	Total/NA	Water	SM 2320B	

Client Sample ID: TB-07-082416

Lab Sample ID: 460-119177-1

Date Collected: 08/24/16 00:00

Matrix: Water

Date Received: 08/25/16 13:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387388	08/29/16 16:52	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 01:54	DAS	TAL EDI

Client Sample ID: FB-04-082416

Lab Sample ID: 460-119177-2

Date Collected: 08/24/16 07:45

Matrix: Water

Date Received: 08/25/16 13:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387388	08/29/16 17:19	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 02:19	DAS	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 10:26	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388366	09/04/16 17:14	MMC	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 16:13	JHP	TAL EDI
Total/NA	Analysis	9056A		1	389346	09/09/16 00:22	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			387299	08/28/16 18:55	PHP	TAL EDI
Dissolved	Prep	3010A			387304	08/28/16 19:06	PHP	TAL EDI
Dissolved	Analysis	6020A		2	389607	09/09/16 16:07	PHP	TAL EDI
Total/NA	Prep	3010A			388515	09/02/16 20:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388832	09/03/16 23:28	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 16:12	RBS	TAL EDI
Total/NA	Prep	7470A			387884	08/31/16 12:26	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387957	08/31/16 17:21	RBS	TAL EDI
Total/NA	Prep	9012B			388799	09/06/16 09:49	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388866	09/06/16 14:49	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	389106	09/07/16 17:42	RAK	TAL EDI

Client Sample ID: DUP-04-082416

Lab Sample ID: 460-119177-3

Date Collected: 08/24/16 12:00

Matrix: Water

Date Received: 08/25/16 13:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387388	08/29/16 18:15	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 02:44	DAS	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 10:46	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388366	09/04/16 17:42	MMC	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: DUP-04-082416

Date Collected: 08/24/16 12:00
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 15:55	JHP	TAL EDI
Total/NA	Analysis	9056A		2	389346	09/09/16 00:40	CDC	TAL EDI
Total/NA	Analysis	9056A	DL	5	389346	09/09/16 14:05	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			387299	08/28/16 18:55	PHP	TAL EDI
Dissolved	Prep	3010A			387304	08/28/16 19:06	PHP	TAL EDI
Dissolved	Analysis	6020A		2	388293	09/02/16 08:00	VAD	TAL EDI
Total/NA	Prep	3010A			388515	09/02/16 20:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388832	09/03/16 23:34	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 16:14	RBS	TAL EDI
Total/NA	Prep	7470A			387884	08/31/16 12:26	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387957	08/31/16 17:25	RBS	TAL EDI
Total/NA	Prep	9012B			388799	09/06/16 09:49	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388866	09/06/16 14:50	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	389106	09/07/16 17:42	RAK	TAL EDI

Client Sample ID: RW-3-082416

Date Collected: 08/24/16 09:35
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387388	08/29/16 18:43	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 03:09	DAS	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 11:06	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388366	09/04/16 18:11	MMC	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 15:37	JHP	TAL EDI
Total/NA	Analysis	9056A		2	389346	09/09/16 00:58	CDC	TAL EDI
Total/NA	Analysis	9056A	DL	5	389346	09/09/16 14:24	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			387299	08/28/16 18:55	PHP	TAL EDI
Dissolved	Prep	3010A			387304	08/28/16 19:06	PHP	TAL EDI
Dissolved	Analysis	6020A		2	388293	09/02/16 08:46	VAD	TAL EDI
Total/NA	Prep	3010A			388515	09/02/16 20:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388832	09/03/16 23:51	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 16:19	RBS	TAL EDI
Total/NA	Prep	7470A			387884	08/31/16 12:26	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387957	08/31/16 17:27	RBS	TAL EDI

Client Sample ID: RW-3-082416

Lab Sample ID: 460-119177-4

Date Collected: 08/24/16 09:35

Matrix: Water

Date Received: 08/25/16 13:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012B			388799	09/06/16 09:49	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388866	09/06/16 14:51	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	389106	09/07/16 17:42	RAK	TAL EDI

Client Sample ID: RW-15S(110-120)-082416

Lab Sample ID: 460-119177-5

Date Collected: 08/24/16 11:50

Matrix: Water

Date Received: 08/25/16 13:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387388	08/29/16 17:47	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387932	08/31/16 20:38	AAT	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 10:07	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388366	09/04/16 16:45	MMC	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 10:22	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	5	389346	09/09/16 11:21	CDC	TAL EDI
Total/NA	Analysis	9056A	DL2	10	389346	09/09/16 14:42	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			387299	08/28/16 18:55	PHP	TAL EDI
Dissolved	Prep	3010A			387304	08/28/16 19:06	PHP	TAL EDI
Dissolved	Analysis	6020A		2	388293	09/02/16 07:30	VAD	TAL EDI
Total/NA	Prep	3010A			388515	09/02/16 20:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388832	09/03/16 20:44	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 15:32	RBS	TAL EDI
Total/NA	Prep	7470A			387884	08/31/16 12:26	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387957	08/31/16 16:56	RBS	TAL EDI
Total/NA	Prep	9012B			388799	09/06/16 09:49	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388866	09/06/16 14:47	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	389106	09/07/16 17:42	RAK	TAL EDI

Client Sample ID: RW-15D(127-137)-082416

Lab Sample ID: 460-119177-6

Date Collected: 08/24/16 13:40

Matrix: Water

Date Received: 08/25/16 13:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387388	08/29/16 19:11	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 03:34	DAS	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 11:25	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI

Client Sample ID: RW-15D(127-137)-082416

Lab Sample ID: 460-119177-6

Date Collected: 08/24/16 13:40

Matrix: Water

Date Received: 08/25/16 13:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D SIM		1	388366	09/04/16 18:39	MMC	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 15:19	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	20	389346	09/09/16 15:00	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			387299	08/28/16 18:55	PHP	TAL EDI
Dissolved	Prep	3010A			387304	08/28/16 19:06	PHP	TAL EDI
Dissolved	Analysis	6020A		2	388293	09/02/16 08:52	VAD	TAL EDI
Total/NA	Prep	3010A			388515	09/02/16 20:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388832	09/04/16 00:26	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 16:21	RBS	TAL EDI
Total/NA	Prep	7470A			387884	08/31/16 12:26	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387957	08/31/16 17:29	RBS	TAL EDI
Total/NA	Prep	9012B			388799	09/06/16 09:49	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388866	09/06/16 14:55	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	389106	09/07/16 17:42	RAK	TAL EDI

Client Sample ID: RW-4(333-343)-082416

Lab Sample ID: 460-119177-7

Date Collected: 08/24/16 14:50

Matrix: Water

Date Received: 08/25/16 13:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387388	08/29/16 19:38	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387932	08/31/16 21:03	AAT	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 11:45	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388366	09/04/16 19:08	MMC	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 15:01	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	2	389346	09/09/16 15:19	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			387299	08/28/16 18:55	PHP	TAL EDI
Dissolved	Prep	3010A			387304	08/28/16 19:06	PHP	TAL EDI
Dissolved	Analysis	6020A		2	388293	09/02/16 08:58	VAD	TAL EDI
Total/NA	Prep	3010A			388515	09/02/16 20:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388832	09/04/16 00:38	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 16:23	RBS	TAL EDI
Total/NA	Prep	7470A			387884	08/31/16 12:26	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387957	08/31/16 17:31	RBS	TAL EDI
Total/NA	Prep	9012B			388799	09/06/16 09:49	MBE	TAL EDI

Client Sample ID: RW-4(333-343)-082416

Lab Sample ID: 460-119177-7

Date Collected: 08/24/16 14:50

Matrix: Water

Date Received: 08/25/16 13:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9012B		1	388866	09/06/16 14:56	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	389106	09/07/16 17:42	RAK	TAL EDI

Client Sample ID: RW-4(393-403)-082416

Lab Sample ID: 460-119177-8

Date Collected: 08/24/16 15:35

Matrix: Water

Date Received: 08/25/16 13:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387388	08/29/16 20:06	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387932	08/31/16 21:28	AAT	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 12:05	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388366	09/04/16 19:37	MMC	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 14:43	JHP	TAL EDI
Total/NA	Analysis	9056A		1	389346	09/09/16 02:12	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			387299	08/28/16 18:55	PHP	TAL EDI
Dissolved	Prep	3010A			387304	08/28/16 19:06	PHP	TAL EDI
Dissolved	Analysis	6020A		2	388293	09/02/16 09:04	VAD	TAL EDI
Total/NA	Prep	3010A			388515	09/02/16 20:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388832	09/04/16 00:50	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			387697	08/30/16 15:39	RBS	TAL EDI
Dissolved	Prep	7470A			388137	09/01/16 10:55	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388212	09/01/16 16:25	RBS	TAL EDI
Total/NA	Prep	7470A			387884	08/31/16 12:26	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387957	08/31/16 17:33	RBS	TAL EDI
Total/NA	Prep	9012B			388799	09/06/16 09:49	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388866	09/06/16 14:57	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	389106	09/07/16 17:42	RAK	TAL EDI

Client Sample ID: RW-4A(113-123)-082416

Lab Sample ID: 460-119177-9

Date Collected: 08/24/16 16:10

Matrix: Water

Date Received: 08/25/16 13:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387388	08/29/16 20:34	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387932	08/31/16 21:53	AAT	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 12:24	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388366	09/04/16 20:05	MMC	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Client Sample ID: RW-4A(113-123)-082416

Date Collected: 08/24/16 16:10
Date Received: 08/25/16 13:45

Lab Sample ID: 460-119177-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8082A		1	387810	08/31/16 14:25	JHP	TAL EDI
Total/NA	Analysis	9056A		1	389346	09/09/16 02:30	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			387299	08/28/16 18:55	PHP	TAL EDI
Dissolved	Prep	3010A			387304	08/28/16 19:06	PHP	TAL EDI
Dissolved	Analysis	6020A		2	388293	09/02/16 09:15	VAD	TAL EDI
Total/NA	Prep	3010A			388515	09/02/16 20:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	388832	09/04/16 01:07	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			388209	09/01/16 16:21	RBS	TAL EDI
Dissolved	Prep	7470A			388822	09/06/16 11:56	RBS	TAL EDI
Dissolved	Analysis	7470A		1	388881	09/06/16 14:47	RBS	TAL EDI
Total/NA	Prep	7470A			387884	08/31/16 12:26	RBS	TAL EDI
Total/NA	Analysis	7470A		1	387957	08/31/16 17:34	RBS	TAL EDI
Total/NA	Prep	9012B			388799	09/06/16 09:49	MBE	TAL EDI
Total/NA	Analysis	9012B		1	388866	09/06/16 14:58	PXP	TAL EDI
Total/NA	Analysis	SM 2320B		1	389106	09/07/16 17:42	RAK	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Certification Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Laboratory: TestAmerica Edison

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New Jersey	NELAP	2	12028	06-30-17

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,4-Trichlorobenzene
8260C SIM		Water	1,2,3-Trichloropropane
8260C SIM		Water	1,2-Dibromo-3-Chloropropane
8260C SIM		Water	Ethylene Dibromide
8270D SIM	3510C	Water	Bis(2-chloroethyl)ether
9056A		Water	Chloride
9056A		Water	Sulfate

Method Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
9056A	Anions, Ion Chromatography	SW846	TAL EDI
6020A	Metals (ICP/MS)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
9012B	Cyanide, Total andor Amenable	SW846	TAL EDI
SM 2320B	Alkalinity	SM	TAL EDI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119177-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-119177-1	TB-07-082416	Water	08/24/16 00:00	08/25/16 13:45
460-119177-2	FB-04-082416	Water	08/24/16 07:45	08/25/16 13:45
460-119177-3	DUP-04-082416	Water	08/24/16 12:00	08/25/16 13:45
460-119177-4	RW-3-082416	Water	08/24/16 09:35	08/25/16 13:45
460-119177-5	RW-15S(110-120)-082416	Water	08/24/16 11:50	08/25/16 13:45
460-119177-6	RW-15D(127-137)-082416	Water	08/24/16 13:40	08/25/16 13:45
460-119177-7	RW-4(333-343)-082416	Water	08/24/16 14:50	08/25/16 13:45
460-119177-8	RW-4(393-403)-082416	Water	08/24/16 15:35	08/25/16 13:45
460-119177-9	RW-4A(113-123)-082416	Water	08/24/16 16:10	08/25/16 13:45

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460-119177 Chain of Custody

CHAIN OF CU

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

9/12/2016

Name (for report and invoice) Tim Reeper	Samplers Name (Printed) Robert Lautenberg	Site/Project Identification Ford - Ringwood
Company Cornerstone Environmental Group	P. O. # 140802-015	State (Location of site): NJ: X NY: Other:
		Regulatory Program: DKQP:
Address 100 Crystal Run Rd, Suite 101	Analysis Turnaround Time: Standard X	
City Middletown State NY 10941	Rush Charges Authorized For: 2 Week, 1 Week, Other	
Phone 845 695 0200 Fax		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + 15 TICs 8260B	TCL SVOC + 15 TICs 8270C	TAL Metals - Total + Filtered Boron/Hex	PCBs	Alkalinity, Total as CaCO3 - 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	LAB USE ONLY Project No: / Job No: 119177 / Sample Numbers
TB-07-082416	8/24/16	—	BW	4	✓								1
FB-04-082416	8/24/16	07:45	BW	13	✓	✓	✓	✓	✓	✓	✓	✓	2
Dup-04-082416	8/24/16	12:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	3
RW-3-082416	8/24/16	09:35	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	4
RW-15S(110-120)-082416	8/24/16	11:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	5
RW-15S(110-120)-082416 MS	8/24/16	11:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	6
RW-15S(110-120)-082416 MSD	8/24/16	11:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	5
RW-15D(127-137)-082416	8/24/16	13:40	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	6
RW-4(333-343)-082416	8/24/16	14:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	7
RW-4(393-403)-082416	8/24/16	15:35	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	8

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____ — Soil: / Water:

Special Instructions Do not report 1,4 Dioxane for VOCs + SVOCs — Water Metals Filtered (Yes/No)? No

Relinquished by	Company	Date / Time	Received by	Company
1) [signature]	Cornerstone	8/25/16 0920	1) [signature]	TA
2) [signature]	TA	8/25/16 1345	2) [signature]	TA Edison
3)			3)	8/20/16
4)			4)	545

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0715)

NDCs #7 1.2, 1.8, 1.0, 1.3

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

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CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice): Tim Roeper	Samplers Name (Printed): Robert Lafemberg	Site/Project Identification: Ford - Ringwood
Company: Cornerstone Environmental Group	P. O. #: 140802-015	State (Location of site): NJ: ☒ NY: ☐ Other:
		Regulatory Program: DKQP: ☐
Address: 100 Crystal Run Rd, Suite 101	Analysis Turnaround Time: Standard ☒	
City: Middletown State: NY 10941	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone: 8456950200 Fax:		

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + TICs 8260B	TCL SVOC + TICs 8270C	TAL Metals - Total & Filtered 6010B/7470A	PCBs Aroclors, Total CaCO3 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	Sample Numbers
MW-4A(113-123)-082416	8/24/16	1610	GW	13	✓	✓	✓	✓	✓	✓	✓	9

LAB USE ONLY
Project No:
Job No: 119177

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH 6 = Other _____, 7 = Other _____ Soil: Water:

Special Instructions Do not report 1,4 Dioxane for VOC's & SVOC's. Water Metals Filtered (Yes/No)? NO

	Company	Date / Time		Company
Relinquished by 1)	Cornerstone	8/25/16 0920	Received by 1) Tusha Smith	TA
Relinquished by 2) Tusha Smith	TA	8/25/16 1345	Received by 2)	TA Edison
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 119177

Number of Coolers: 4 IR Gun # 7

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	1.2°C	1.2°C	Cooler #4:	1.3°C	1.3°C	Cooler #7:	°C	°C
Cooler #2:	1.8°C	1.8°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	1.0°C	1.0°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
2				<2								7.2			
3				<2								7.2			
4				<2								9.2			
6				<2								7.2			
6				<2								7.2			
7				<2								7.2			
8				<2								7.2			
9				<2								7.2			

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: LS Date: 8/25/16

Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 460-119177-1

Login Number: 119177
List Number: 1
Creator: Meyers, Gary

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2/1.8/1.0/1.3 ° C IR #7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-119270-1
Client Project/Site: FORD Ringwood Mines E203361

For:
Cornerstone Environmental Group, LLC
100 Crystal Run Road
Suite 101
Middletown, New York 10941

Attn: Tim Roeper

Authorized for release by:
9/12/2016 3:59:02 PM

Marie Meidhof, Project Manager II
(732)549-3900
marie.meidhof@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F2	MS/MSD RPD exceeds control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
E	Result exceeded calibration range.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F3	Duplicate RPD exceeds the control limit
F1	MS and/or MSD Recovery is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 460-119270-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: Cornerstone Environmental Group, LLC

Project: FORD Ringwood Mines E203361

Report Number: 460-119270-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 8/26/2016 5:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 1.9º C, 2.8º C, 3.4º C and 3.6º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC-MS) DKQP

Samples TB-08-082516 (460-119270-1), RW-4A(62-72)-082516 (460-119270-2), RW-13(71-91)-082516 (460-119270-3), RW-12(130-140)-082516 (460-119270-4), RW-8(204-214)-082516 (460-119270-5), RW-8(163-173)-082516 (460-119270-6), RW-13(100-120)-082616 (460-119270-7), RW-13(150-170)-082616 (460-119270-8), Dup-05-082616 (460-119270-9), RW-10(185-195) -082616 (460-119270-10) and RW-10A(75-85)-082616 (460-119270-11) were analyzed for Volatile organic compounds DKQP Aqueous in accordance with EPA SW-846 Methods 8260C DKQP. The samples were analyzed on 09/01/2016.

Method(s) 8260C: The continuing calibration verification (CCV) analyzed in batch 460-387955 was outside the method criteria for the following analyte(s): Bromoform, Dichlorodifluoromethane and Trichlorofluoromethane (biased low) and 1,1,2,2-Tetrachloroethane (biased high). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 460-387955 recovered outside control limits for the following analyte: Bromoform. Bromoform failed the recovery criteria low for LCS 460-387955/3. This analyte was not detected in the associated samples; therefore, the data have been reported.

Bromoform and Tetrachloroethene failed the recovery criteria low for the MS of sample 460-119372-7 in batch 460-387955.

Bromoform and Tetrachloroethene failed the recovery criteria low for the MSD of sample 460-119372-7 in batch 460-387955. 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene exceeded the RPD limit.

Job ID: 460-119270-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the Volatile organic compounds DKQP Aqueous analysis.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS) DKQP - SELECTED ION MODE (SIM)

Samples TB-08-082516 (460-119270-1), RW-4A(62-72)-082516 (460-119270-2), RW-13(71-91)-082516 (460-119270-3), RW-12(130-140)-082516 (460-119270-4), RW-8(204-214)-082516 (460-119270-5), RW-8(163-173)-082516 (460-119270-6), RW-13(100-120)-082616 (460-119270-7), RW-13(150-170)-082616 (460-119270-8), Dup-05-082616 (460-119270-9), RW-10(185-195)-082616 (460-119270-10) and RW-10A(75-85)-082616 (460-119270-11) were analyzed for volatile organic compounds (GC-MS) DKQP in accordance with EPA SW-846 Method 8260C SIM DKQP. The samples were analyzed on 08/31/2016.

The continuing calibration verification (CCV) analyzed in batch 388124 was outside the method criteria for the following analytes: Bromoform (biased low) and 2-Methyl-2-propanol (biased high). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes is considered estimated.

No other difficulties were encountered during the volatile organic compounds (GC-MS) DKQP analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) DKQP

Samples RW-4A(62-72)-082516 (460-119270-2), RW-13(71-91)-082516 (460-119270-3), RW-12(130-140)-082516 (460-119270-4), RW-8(204-214)-082516 (460-119270-5), RW-8(163-173)-082516 (460-119270-6), RW-13(100-120)-082616 (460-119270-7), RW-13(150-170)-082616 (460-119270-8), Dup-05-082616 (460-119270-9), RW-10(185-195)-082616 (460-119270-10) and RW-10A(75-85)-082616 (460-119270-11) were analyzed for Semivolatile organic compounds (GC/MS) DKQP in accordance with EPA SW-846 Method 8270D DKQP. The samples were prepared on 08/29/2016 and analyzed on 09/05/2016.

The continuing calibration verification (CCV) analyzed in batch 460-388683 was outside the method criteria for the following analyte: 2,4-Dinitrophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

Surrogate recovery for the following matrix spike duplicate (MSD) was outside control limits: (460-119177-K-5-A MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. Matrix spikes (MS) and parent sample confirms matrix interference.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 460-387456 and analytical batch 460-388683 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

2,4,6-Tribromophenol (Surr) failed the surrogate recovery criteria high for 460-119177-K-5-A MSD. Refer to the QC report for details.

2-Nitrophenol failed the recovery criteria low for the MS of sample 460-119177-5 in batch 460-388683.

2,4-Dichlorophenol, 2-Nitrophenol, 4-Nitrophenol and Benzo[k]fluoranthene exceeded the RPD limit for the MSD of sample 460-119177-5 in batch 460-388683.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

Job ID: 460-119270-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) DKQP - SELECTED ION MODE (SIM)

Samples RW-4A(62-72)-082516 (460-119270-2), RW-13(71-91)-082516 (460-119270-3), RW-12(130-140)-082516 (460-119270-4), RW-8(204-214)-082516 (460-119270-5), RW-8(163-173)-082516 (460-119270-6), RW-13(100-120)-082616 (460-119270-7), RW-13(150-170)-082616 (460-119270-8), Dup-05-082616 (460-119270-9), RW-10(185-195)-082616 (460-119270-10) and RW-10A(75-85)-082616 (460-119270-11) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) in accordance with EPA Method 8270C SIM DKQP. The samples were prepared on 08/29/2016 and analyzed on 09/06/2016.

The continuing calibration verification (CCV) analyzed in 460-388366 was outside the method criteria for the following analyte(s): Bis(2-chloroethyl)ether. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The laboratory control sample (LCS) for batch preparation batch 460-387456 and analytical batch 460-388366 recovered outside control limits for multiple analytes. These analytes were outside DKQP limits, but within the house limits; therefore, the data have been reported.

Benzo[a]pyrene, Benzo[b]fluoranthene and Dibenz(a,h)anthracene failed the recovery criteria low for LCS 460-387456/4-A. Refer to the QC report for details.

No other difficulties were encountered during the semivolatile organic compounds - Selected Ion Mode (SIM) analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS) DKQP

Samples RW-4A(62-72)-082516 (460-119270-2), RW-13(71-91)-082516 (460-119270-3), RW-12(130-140)-082516 (460-119270-4), RW-8(204-214)-082516 (460-119270-5), RW-8(163-173)-082516 (460-119270-6), RW-13(100-120)-082616 (460-119270-7), RW-13(150-170)-082616 (460-119270-8), Dup-05-082616 (460-119270-9), RW-10(185-195)-082616 (460-119270-10) and RW-10A(75-85)-082616 (460-119270-11) were analyzed for polychlorinated biphenyls (PCBs) DKQP in accordance with EPA SW-846 Method 8082A DKQP. The samples were prepared on 08/30/2016 and analyzed on 08/31/2016 and 09/02/2016.

The following sample required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: RW-13(150-170)-082616 (460-119270-8). The reagent lot number used was: SLBC3181V.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

METALS DKQP

Samples RW-4A(62-72)-082516 (460-119270-2), RW-13(71-91)-082516 (460-119270-3), RW-12(130-140)-082516 (460-119270-4), RW-8(204-214)-082516 (460-119270-5), RW-8(163-173)-082516 (460-119270-6), RW-13(150-170)-082616 (460-119270-8), Dup-05-082616 (460-119270-9), RW-10(185-195)-082616 (460-119270-10) and RW-10A(75-85)-082616 (460-119270-11) were analyzed for Metals DKQP in accordance with EPA SW-846 Method 6020A DKQP. The samples were prepared on 09/07/2016 and analyzed on 09/07/2016 and 09/09/2016.

Iron and Manganese failed the recovery criteria low for the MS of sample 460-119333-3 in batch 460-389580.

Refer to the QC report for details.

Iron exceeded the RPD limit for the duplicate of sample 460-119333-3. Refer to the QC report for details.

No other difficulties were encountered during the Metals DKQP analysis.

All other quality control parameters were within the acceptance limits.

Job ID: 460-119270-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

METALS

Samples RW-4A(62-72)-082516 (460-119270-2), RW-13(71-91)-082516 (460-119270-3), RW-12(130-140)-082516 (460-119270-4), RW-8(204-214)-082516 (460-119270-5), RW-8(163-173)-082516 (460-119270-6), RW-13(100-120)-082616 (460-119270-7), RW-13(150-170)-082616 (460-119270-8), Dup-05-082616 (460-119270-9), RW-10(185-195)-082616 (460-119270-10) and RW-10A(75-85)-082616 (460-119270-11) were analyzed for Metals in accordance with EPA SW-846 Method 6020A DKQP. The samples were prepared on 09/03/2016 and analyzed on 09/08/2016 and 09/09/2016.

Calcium failed the recovery criteria high for the MS of sample 460-119189-9 in batch 460-389608.

Refer to the QC report for details.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

MERCURY DKQP

Samples RW-4A(62-72)-082516 (460-119270-2), RW-13(71-91)-082516 (460-119270-3), RW-12(130-140)-082516 (460-119270-4), RW-8(204-214)-082516 (460-119270-5), RW-8(163-173)-082516 (460-119270-6), RW-13(150-170)-082616 (460-119270-8), Dup-05-082616 (460-119270-9), RW-10(185-195)-082616 (460-119270-10) and RW-10A(75-85)-082616 (460-119270-11) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 09/07/2016.

No difficulties were encountered during the dissolved Hg analysis.

All quality control parameters were within the acceptance limits.

MERCURY DKQP

Samples RW-4A(62-72)-082516 (460-119270-2), RW-13(71-91)-082516 (460-119270-3), RW-12(130-140)-082516 (460-119270-4), RW-8(204-214)-082516 (460-119270-5), RW-8(163-173)-082516 (460-119270-6), RW-13(100-120)-082616 (460-119270-7), RW-13(150-170)-082616 (460-119270-8), Dup-05-082616 (460-119270-9), RW-10(185-195)-082616 (460-119270-10) and RW-10A(75-85)-082616 (460-119270-11) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 09/01/2016 and 09/06/2016.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

ANIONS

Samples RW-4A(62-72)-082516 (460-119270-2), RW-13(71-91)-082516 (460-119270-3), RW-12(130-140)-082516 (460-119270-4), RW-8(204-214)-082516 (460-119270-5), RW-8(163-173)-082516 (460-119270-6), RW-13(150-170)-082616 (460-119270-8), Dup-05-082616 (460-119270-9), RW-10(185-195)-082616 (460-119270-10) and RW-10A(75-85)-082616 (460-119270-11) were analyzed for anions in accordance with EPA SW-846 Method 9056. The samples were analyzed on 09/09/2016 and 09/11/2016.

Samples RW-13(71-91)-082516 (460-119270-3)[200X], RW-12(130-140)-082516 (460-119270-4)[100X], RW-8(204-214)-082516 (460-119270-5)[100X], RW-8(163-173)-082516 (460-119270-6)[100X], RW-13(150-170)-082616 (460-119270-8)[10X], RW-13(150-170) -082616 (460-119270-8)[100X], Dup-05-082616 (460-119270-9)[100X], RW-10(185-195)-082616 (460-119270-10)[100X], RW-10A(75-85) -082616 (460-119270-11)[10X] and RW-10A(75-85)-082616 (460-119270-11)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the anions analysis.

All other quality control parameters were within the acceptance limits.

ALKALINITY

Samples RW-4A(62-72)-082516 (460-119270-2), RW-13(71-91)-082516 (460-119270-3), RW-12(130-140)-082516 (460-119270-4), RW-8(204-214)-082516 (460-119270-5), RW-8(163-173)-082516 (460-119270-6), RW-13(150-170)-082616 (460-119270-8),

Job ID: 460-119270-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

Dup-05-082616 (460-119270-9), RW-10(185-195)-082616 (460-119270-10) and RW-10A(75-85)-082616 (460-119270-11) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 09/08/2016.

No difficulties were encountered during the alkalinity analysis.

All quality control parameters were within the acceptance limits.

CYANIDE

Samples RW-4A(62-72)-082516 (460-119270-2), RW-13(71-91)-082516 (460-119270-3), RW-12(130-140)-082516 (460-119270-4), RW-8(204-214)-082516 (460-119270-5), RW-8(163-173)-082516 (460-119270-6), RW-13(100-120)-082616 (460-119270-7), RW-13(150-170)-082616 (460-119270-8), Dup-05-082616 (460-119270-9), RW-10(185-195)-082616 (460-119270-10) and RW-10A(75-85)-082616 (460-119270-11) were analyzed for cyanide in accordance with EPA SW-846 Method 9012B (DKQP). The samples were prepared on 09/07/2016 and analyzed on 09/07/2016 and 09/08/2016.

No difficulties were encountered during the cyanide analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: TB-08-082516 — Lab Sample ID: 460-119270-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.1	J	5.0	1.1	ug/L	1		8260C	Total/NA
Methylene Chloride	0.23	J	1.0	0.21	ug/L	1		8260C	Total/NA

Client Sample ID: RW-4A(62-72)-082516 — Lab Sample ID: 460-119270-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.2		5.0	1.1	ug/L	1		8260C	Total/NA
Chloride	1.75		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	11.4		0.60	0.11	mg/L	1		9056A	Total/NA
Barium	4.4		4.0	1.2	ug/L	2		6020A	Total/NA
Copper	2.0	J	4.0	1.4	ug/L	2		6020A	Total/NA
Manganese	2.9	J	8.0	2.5	ug/L	2		6020A	Total/NA
Nickel	21.3		4.0	1.4	ug/L	2		6020A	Total/NA
Lead	0.83	J	1.2	0.38	ug/L	2		6020A	Total/NA
Zinc	10.0	J	16.0	7.0	ug/L	2		6020A	Total/NA
Aluminum	121		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	5640		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	3130		200	63.6	ug/L	2		6020A	Total/NA
Potassium	1240		200	91.4	ug/L	2		6020A	Total/NA
Calcium	9340		200	60.5	ug/L	2		6020A	Total/NA
Iron	147		120	42.4	ug/L	2		6020A	Total/NA
Barium	4.4		4.0	1.2	ug/L	2		6020A	Dissolved
Nickel	24.7		4.0	1.4	ug/L	2		6020A	Dissolved
Zinc	7.9	J	16.0	7.0	ug/L	2		6020A	Dissolved
Sodium	5520		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	3720		200	63.6	ug/L	2		6020A	Dissolved
Potassium	1220		200	91.4	ug/L	2		6020A	Dissolved
Calcium	9300		200	60.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	40.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	40.2		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-13(71-91)-082516 — Lab Sample ID: 460-119270-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	8.4		5.0	1.1	ug/L	1		8260C	Total/NA
Methylene Chloride	0.35	J	1.0	0.21	ug/L	1		8260C	Total/NA
Sulfate	18.9		0.60	0.11	mg/L	1		9056A	Total/NA
Chloride - DL	436	D	24.0	6.00	mg/L	200		9056A	Total/NA
Barium	11.2		4.0	1.2	ug/L	2		6020A	Total/NA
Copper	2.4	J	4.0	1.4	ug/L	2		6020A	Total/NA
Manganese	3.9	J	8.0	2.5	ug/L	2		6020A	Total/NA
Aluminum	51.0		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	14100		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	15100		200	63.6	ug/L	2		6020A	Total/NA
Potassium	3040		200	91.4	ug/L	2		6020A	Total/NA
Calcium	41200		200	60.5	ug/L	2		6020A	Total/NA
Iron	149		120	42.4	ug/L	2		6020A	Total/NA
Barium	11.4		4.0	1.2	ug/L	2		6020A	Dissolved
Sodium	14300		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	15300		200	63.6	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-13(71-91)-082516 (Continued) — Lab Sample ID: 460-119270-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	3010		200	91.4	ug/L	2		6020A	Dissolved
Calcium	42600		200	60.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	115		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	115		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-12(130-140)-082516 — Lab Sample ID: 460-119270-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.5		5.0	1.1	ug/L	1		8260C	Total/NA
Carbon disulfide	0.60	J	1.0	0.22	ug/L	1		8260C	Total/NA
Cyclohexane	0.54	J	1.0	0.26	ug/L	1		8260C	Total/NA
Chloride - DL	183	D	12.0	3.00	mg/L	100		9056A	Total/NA
Sulfate - DL	1390	D	60.0	10.5	mg/L	100		9056A	Total/NA
Arsenic	13.5		2.0	0.64	ug/L	2		6020A	Total/NA
Barium	15.1		4.0	1.2	ug/L	2		6020A	Total/NA
Manganese	11.9		8.0	2.5	ug/L	2		6020A	Total/NA
Nickel	4.0		4.0	1.4	ug/L	2		6020A	Total/NA
Lead	0.41	J	1.2	0.38	ug/L	2		6020A	Total/NA
Selenium	0.92	J	10.0	0.73	ug/L	2		6020A	Total/NA
Zinc	42.2		16.0	7.0	ug/L	2		6020A	Total/NA
Aluminum	877		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	84200		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	710		200	63.6	ug/L	2		6020A	Total/NA
Potassium	9700		200	91.4	ug/L	2		6020A	Total/NA
Calcium	38500		200	60.5	ug/L	2		6020A	Total/NA
Iron	400		120	42.4	ug/L	2		6020A	Total/NA
Arsenic	15.0		2.0	0.64	ug/L	2		6020A	Dissolved
Barium	8.2		4.0	1.2	ug/L	2		6020A	Dissolved
Selenium	1.2	J	10.0	0.73	ug/L	2		6020A	Dissolved
Aluminum	506		40.0	18.2	ug/L	2		6020A	Dissolved
Sodium	85100		200	69.0	ug/L	2		6020A	Dissolved
Potassium	8730		200	91.4	ug/L	2		6020A	Dissolved
Calcium	35500		200	60.5	ug/L	2		6020A	Dissolved
Alkalinity	129		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-8(204-214)-082516 — Lab Sample ID: 460-119270-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	13		5.0	2.2	ug/L	1		8260C	Total/NA
Acetone	8.8		5.0	1.1	ug/L	1		8260C	Total/NA
Benzene	3.8		1.0	0.090	ug/L	1		8260C	Total/NA
Carbon disulfide	1.6		1.0	0.22	ug/L	1		8260C	Total/NA
Chloromethane	0.49	J	1.0	0.22	ug/L	1		8260C	Total/NA
Vinyl chloride	0.24	J	1.0	0.060	ug/L	1		8260C	Total/NA
Phenol	4.2	J	11	0.44	ug/L	1		8270D	Total/NA
Chloride - DL	123	D	12.0	3.00	mg/L	100		9056A	Total/NA
Sulfate - DL	182	D	60.0	10.5	mg/L	100		9056A	Total/NA
Arsenic	1.8	J	2.0	0.64	ug/L	2		6020A	Total/NA
Barium	8.1		4.0	1.2	ug/L	2		6020A	Total/NA
Manganese	5.9	J	8.0	2.5	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-8(204-214)-082516 (Continued) — Lab Sample ID: 460-119270-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	4.5		4.0	1.4	ug/L	2		6020A	Total/NA
Sodium	86300		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	10700		200	63.6	ug/L	2		6020A	Total/NA
Potassium	128000		200	91.4	ug/L	2		6020A	Total/NA
Calcium	10400		200	60.5	ug/L	2		6020A	Total/NA
Iron	73.2	J	120	42.4	ug/L	2		6020A	Total/NA
Arsenic	1.7	J	2.0	0.64	ug/L	2		6020A	Dissolved
Barium	5.8		4.0	1.2	ug/L	2		6020A	Dissolved
Nickel	3.9	J	4.0	1.4	ug/L	2		6020A	Dissolved
Sodium	89100		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	10300		200	63.6	ug/L	2		6020A	Dissolved
Potassium	138000		200	91.4	ug/L	2		6020A	Dissolved
Calcium	7600		200	60.5	ug/L	2		6020A	Dissolved
Iron	44.1	J	120	42.4	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	125		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	277		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-8(163-173)-082516 — Lab Sample ID: 460-119270-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.5		5.0	1.1	ug/L	1		8260C	Total/NA
Benzene	0.35	J	1.0	0.090	ug/L	1		8260C	Total/NA
Chloride - DL	25.9	D	12.0	3.00	mg/L	100		9056A	Total/NA
Sulfate - DL	140	D	60.0	10.5	mg/L	100		9056A	Total/NA
Arsenic	1.5	J	2.0	0.64	ug/L	2		6020A	Total/NA
Barium	9.7		4.0	1.2	ug/L	2		6020A	Total/NA
Manganese	14.7		8.0	2.5	ug/L	2		6020A	Total/NA
Nickel	2.3	J	4.0	1.4	ug/L	2		6020A	Total/NA
Sodium	43800		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	5460		200	63.6	ug/L	2		6020A	Total/NA
Potassium	2210		200	91.4	ug/L	2		6020A	Total/NA
Calcium	34300		200	60.5	ug/L	2		6020A	Total/NA
Arsenic	1.6	J	2.0	0.64	ug/L	2		6020A	Dissolved
Barium	9.5		4.0	1.2	ug/L	2		6020A	Dissolved
Manganese	15.1		8.0	2.5	ug/L	2		6020A	Dissolved
Nickel	1.6	J	4.0	1.4	ug/L	2		6020A	Dissolved
Sodium	42100		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	6710		200	63.6	ug/L	2		6020A	Dissolved
Potassium	2030		200	91.4	ug/L	2		6020A	Dissolved
Calcium	34600		200	60.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	82.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	82.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-13(100-120)-082616 — Lab Sample ID: 460-119270-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	3.6	J	5.0	2.2	ug/L	1		8260C	Total/NA
Acetone	25		5.0	1.1	ug/L	1		8260C	Total/NA
Cyclohexane	0.45	J	1.0	0.26	ug/L	1		8260C	Total/NA
Methylene Chloride	0.24	J	1.0	0.21	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RW-13(100-120)-082616 (Continued)

Lab Sample ID: 460-119270-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.99	J	1.0	0.25	ug/L	1		8260C	Total/NA
Trichloroethene	0.37	J	1.0	0.22	ug/L	1		8260C	Total/NA
Phenol	4.8	J	11	0.44	ug/L	1		8270D	Total/NA
Arsenic	3.1		2.0	0.64	ug/L	2		6020A	Total/NA
Barium	17.7		4.0	1.2	ug/L	2		6020A	Total/NA
Chromium	22.3		4.0	1.3	ug/L	2		6020A	Total/NA
Copper	14.8		4.0	1.4	ug/L	2		6020A	Total/NA
Nickel	2.8	J	4.0	1.4	ug/L	2		6020A	Total/NA
Lead	0.78	J	1.2	0.38	ug/L	2		6020A	Total/NA
Selenium	9.2	J	10.0	0.73	ug/L	2		6020A	Total/NA
Vanadium	44.1		4.0	1.9	ug/L	2		6020A	Total/NA
Aluminum	5080		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	190000		200	69.0	ug/L	2		6020A	Total/NA
Potassium	185000		200	91.4	ug/L	2		6020A	Total/NA
Calcium	13800		200	60.5	ug/L	2		6020A	Total/NA
Iron	344		120	42.4	ug/L	2		6020A	Total/NA

Client Sample ID: RW-13(150-170)-082616

Lab Sample ID: 460-119270-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.5	J	5.0	1.1	ug/L	1		8260C	Total/NA
Carbon disulfide	0.37	J	1.0	0.22	ug/L	1		8260C	Total/NA
Ethylbenzene	0.48	J	1.0	0.30	ug/L	1		8260C	Total/NA
Toluene	0.33	J	1.0	0.25	ug/L	1		8260C	Total/NA
Trichloroethene	0.69	J	1.0	0.22	ug/L	1		8260C	Total/NA
Sulfate	210		6.00	1.05	mg/L	10		9056A	Total/NA
Chloride - DL	195	D	12.0	3.00	mg/L	100		9056A	Total/NA
Arsenic	1.6	J	2.0	0.64	ug/L	2		6020A	Total/NA
Barium	48.2		4.0	1.2	ug/L	2		6020A	Total/NA
Manganese	104		8.0	2.5	ug/L	2		6020A	Total/NA
Nickel	5.4		4.0	1.4	ug/L	2		6020A	Total/NA
Lead	0.54	J	1.2	0.38	ug/L	2		6020A	Total/NA
Zinc	8.5	J	16.0	7.0	ug/L	2		6020A	Total/NA
Aluminum	89.4		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	18200		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	5860		200	63.6	ug/L	2		6020A	Total/NA
Potassium	2260		200	91.4	ug/L	2		6020A	Total/NA
Calcium	34900		200	60.5	ug/L	2		6020A	Total/NA
Iron	365		120	42.4	ug/L	2		6020A	Total/NA
Arsenic	1.4	J	2.0	0.64	ug/L	2		6020A	Dissolved
Barium	28.9		4.0	1.2	ug/L	2		6020A	Dissolved
Manganese	110		8.0	2.5	ug/L	2		6020A	Dissolved
Nickel	5.6		4.0	1.4	ug/L	2		6020A	Dissolved
Sodium	18000		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	7020		200	63.6	ug/L	2		6020A	Dissolved
Potassium	2070		200	91.4	ug/L	2		6020A	Dissolved
Calcium	34800		200	60.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	127		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	127		5.0	5.0	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: Dup-05-082616 — Lab Sample ID: 460-119270-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	20		5.0	1.1	ug/L	1		8260C	Total/NA
Carbon disulfide	0.74	J	1.0	0.22	ug/L	1		8260C	Total/NA
Chloride - DL	61.6	D	12.0	3.00	mg/L	100		9056A	Total/NA
Sulfate - DL	1200	D	60.0	10.5	mg/L	100		9056A	Total/NA
Arsenic	4.3		2.0	0.64	ug/L	2		6020A	Total/NA
Barium	9.3		4.0	1.2	ug/L	2		6020A	Total/NA
Nickel	2.2	J	4.0	1.4	ug/L	2		6020A	Total/NA
Aluminum	114		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	30700		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	738		200	63.6	ug/L	2		6020A	Total/NA
Potassium	9680		200	91.4	ug/L	2		6020A	Total/NA
Calcium	46600		200	60.5	ug/L	2		6020A	Total/NA
Arsenic	5.1		2.0	0.64	ug/L	2		6020A	Dissolved
Barium	10.3		4.0	1.2	ug/L	2		6020A	Dissolved
Nickel	1.7	J	4.0	1.4	ug/L	2		6020A	Dissolved
Selenium	0.90	J	10.0	0.73	ug/L	2		6020A	Dissolved
Aluminum	113		40.0	18.2	ug/L	2		6020A	Dissolved
Sodium	30600		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	999		200	63.6	ug/L	2		6020A	Dissolved
Potassium	9720		200	91.4	ug/L	2		6020A	Dissolved
Calcium	49600		200	60.5	ug/L	2		6020A	Dissolved
Alkalinity	78.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-10(185-195)-082616 — Lab Sample ID: 460-119270-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	20		5.0	1.1	ug/L	1		8260C	Total/NA
Carbon disulfide	0.62	J	1.0	0.22	ug/L	1		8260C	Total/NA
Bis(2-ethylhexyl) phthalate	1.3	J	2.1	0.77	ug/L	1		8270D	Total/NA
Chloride - DL	57.5	D	12.0	3.00	mg/L	100		9056A	Total/NA
Sulfate - DL	1200	D	60.0	10.5	mg/L	100		9056A	Total/NA
Arsenic	4.6		2.0	0.64	ug/L	2		6020A	Total/NA
Barium	9.9		4.0	1.2	ug/L	2		6020A	Total/NA
Nickel	2.2	J	4.0	1.4	ug/L	2		6020A	Total/NA
Aluminum	119		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	31200		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	747		200	63.6	ug/L	2		6020A	Total/NA
Potassium	10300		200	91.4	ug/L	2		6020A	Total/NA
Calcium	47200		200	60.5	ug/L	2		6020A	Total/NA
Arsenic	4.0		2.0	0.64	ug/L	2		6020A	Dissolved
Barium	10		4.0	1.2	ug/L	2		6020A	Dissolved
Nickel	1.4	J	4.0	1.4	ug/L	2		6020A	Dissolved
Aluminum	96.2		40.0	18.2	ug/L	2		6020A	Dissolved
Sodium	25300		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	1330		200	63.6	ug/L	2		6020A	Dissolved
Potassium	8740		200	91.4	ug/L	2		6020A	Dissolved
Calcium	51400		200	60.5	ug/L	2		6020A	Dissolved
Alkalinity	74.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-10A(75-85)-082616 — Lab Sample ID: 460-119270-11

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-10A(75-85)-082616 (Continued)

Lab Sample ID: 460-119270-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.0		5.0	1.1	ug/L	1		8260C	Total/NA
Bis(2-ethylhexyl) phthalate	1.0	J	2.1	0.77	ug/L	1		8270D	Total/NA
Chloride	33.7		1.20	0.30	mg/L	10		9056A	Total/NA
Sulfate - DL	754	D	60.0	10.5	mg/L	100		9056A	Total/NA
Barium	6.7		4.0	1.2	ug/L	2		6020A	Total/NA
Manganese	9.1		8.0	2.5	ug/L	2		6020A	Total/NA
Aluminum	27.3	J	40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	5170		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	14200		200	63.6	ug/L	2		6020A	Total/NA
Potassium	2170		200	91.4	ug/L	2		6020A	Total/NA
Calcium	49900		200	60.5	ug/L	2		6020A	Total/NA
Barium	6.7		4.0	1.2	ug/L	2		6020A	Dissolved
Sodium	5290		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	14900		200	63.6	ug/L	2		6020A	Dissolved
Potassium	2120		200	91.4	ug/L	2		6020A	Dissolved
Calcium	52100		200	60.5	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	161		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	161		5.0	5.0	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-08-082516
Date Collected: 08/25/16 00:00
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-1
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 01:04	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 01:04	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*08/31/16 01:04*	*1*
4-Bromofluorobenzene	*80*		*70 - 130*		*08/31/16 01:04*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/01/16 03:40	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/01/16 03:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/01/16 03:40	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/01/16 03:40	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/01/16 03:40	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/01/16 03:40	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/01/16 03:40	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/01/16 03:40	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/01/16 03:40	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/01/16 03:40	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/01/16 03:40	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 03:40	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 03:40	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/01/16 03:40	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/01/16 03:40	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/01/16 03:40	1
Acetone	**4.1**	**J**	5.0	1.1	ug/L			09/01/16 03:40	1
Benzene	0.090	U	1.0	0.090	ug/L			09/01/16 03:40	1
Bromoform	0.18	U *	1.0	0.18	ug/L			09/01/16 03:40	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/01/16 03:40	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			09/01/16 03:40	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/01/16 03:40	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/01/16 03:40	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/01/16 03:40	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/01/16 03:40	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/01/16 03:40	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/01/16 03:40	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/01/16 03:40	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/01/16 03:40	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/01/16 03:40	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/01/16 03:40	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/01/16 03:40	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/01/16 03:40	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/01/16 03:40	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/01/16 03:40	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/01/16 03:40	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/01/16 03:40	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/01/16 03:40	1
Methylene Chloride	**0.23**	**J**	1.0	0.21	ug/L			09/01/16 03:40	1
Styrene	0.17	U	1.0	0.17	ug/L			09/01/16 03:40	1

Client Sample ID: TB-08-082516

Date Collected: 08/25/16 00:00
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/01/16 03:40	1
Toluene	0.25	U	1.0	0.25	ug/L			09/01/16 03:40	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/01/16 03:40	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/01/16 03:40	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/01/16 03:40	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/01/16 03:40	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/01/16 03:40	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/01/16 03:40	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/01/16 03:40*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*09/01/16 03:40*	*1*
4-Bromofluorobenzene	*82*		*70 - 130*		*09/01/16 03:40*	*1*
Dibromofluoromethane (Surr)	*90*		*70 - 130*		*09/01/16 03:40*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*09/01/16 03:40*	*1*

Client Sample ID: RW-4A(62-72)-082516

Date Collected: 08/25/16 08:10
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-2
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 05:14	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 05:14	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 05:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*08/31/16 05:14*	*1*
4-Bromofluorobenzene	*88*		*70 - 130*		*08/31/16 05:14*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/01/16 04:06	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/01/16 04:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/01/16 04:06	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/01/16 04:06	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/01/16 04:06	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/01/16 04:06	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/01/16 04:06	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/01/16 04:06	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/01/16 04:06	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/01/16 04:06	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/01/16 04:06	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 04:06	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 04:06	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/01/16 04:06	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/01/16 04:06	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/01/16 04:06	1
Acetone	**7.2**		5.0	1.1	ug/L			09/01/16 04:06	1

Client Sample ID: RW-4A(62-72)-082516
Date Collected: 08/25/16 08:10
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.090	U	1.0	0.090	ug/L			09/01/16 04:06	1
Bromoform	0.18	U *	1.0	0.18	ug/L			09/01/16 04:06	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/01/16 04:06	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			09/01/16 04:06	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/01/16 04:06	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/01/16 04:06	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/01/16 04:06	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/01/16 04:06	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/01/16 04:06	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/01/16 04:06	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/01/16 04:06	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/01/16 04:06	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/01/16 04:06	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/01/16 04:06	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/01/16 04:06	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/01/16 04:06	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/01/16 04:06	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/01/16 04:06	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/01/16 04:06	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/01/16 04:06	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/01/16 04:06	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/01/16 04:06	1
Styrene	0.17	U	1.0	0.17	ug/L			09/01/16 04:06	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/01/16 04:06	1
Toluene	0.25	U	1.0	0.25	ug/L			09/01/16 04:06	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/01/16 04:06	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/01/16 04:06	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/01/16 04:06	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/01/16 04:06	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/01/16 04:06	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/01/16 04:06	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/01/16 04:06*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*09/01/16 04:06*	*1*
4-Bromofluorobenzene	*83*		*70 - 130*		*09/01/16 04:06*	*1*
Dibromofluoromethane (Surr)	*91*		*70 - 130*		*09/01/16 04:06*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*09/01/16 04:06*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/29/16 14:39	09/06/16 15:41	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/29/16 14:39	09/06/16 15:41	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/29/16 14:39	09/06/16 15:41	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/29/16 14:39	09/06/16 15:41	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/29/16 14:39	09/06/16 15:41	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/29/16 14:39	09/06/16 15:41	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/29/16 14:39	09/06/16 15:41	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-4A(62-72)-082516
Date Collected: 08/25/16 08:10
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-2
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/29/16 14:39	09/06/16 15:41	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/29/16 14:39	09/05/16 12:44	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/29/16 14:39	09/05/16 12:44	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/29/16 14:39	09/05/16 12:44	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/29/16 14:39	09/05/16 12:44	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/29/16 14:39	09/05/16 12:44	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/29/16 14:39	09/05/16 12:44	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/29/16 14:39	09/05/16 12:44	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/29/16 14:39	09/05/16 12:44	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/29/16 14:39	09/05/16 12:44	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/29/16 14:39	09/05/16 12:44	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 12:44	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/29/16 14:39	09/05/16 12:44	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 12:44	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/29/16 14:39	09/05/16 12:44	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/29/16 14:39	09/05/16 12:44	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/29/16 14:39	09/05/16 12:44	1
Isophorone	0.70	U	10	0.70	ug/L		08/29/16 14:39	09/05/16 12:44	1
Naphthalene	0.83	U	10	0.83	ug/L		08/29/16 14:39	09/05/16 12:44	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/29/16 14:39	09/05/16 12:44	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/29/16 14:39	09/05/16 12:44	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/29/16 14:39	09/05/16 12:44	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/29/16 14:39	09/05/16 12:44	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/29/16 14:39	09/05/16 12:44	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 12:44	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 12:44	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 12:44	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/29/16 14:39	09/05/16 12:44	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 12:44	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/29/16 14:39	09/05/16 12:44	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/29/16 14:39	09/05/16 12:44	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 12:44	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 12:44	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 12:44	1
Fluorene	0.83	U	10	0.83	ug/L		08/29/16 14:39	09/05/16 12:44	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/29/16 14:39	09/05/16 12:44	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/29/16 14:39	09/05/16 12:44	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 12:44	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 12:44	1
Anthracene	0.59	U	10	0.59	ug/L		08/29/16 14:39	09/05/16 12:44	1
Carbazole	0.89	U	10	0.89	ug/L		08/29/16 14:39	09/05/16 12:44	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 12:44	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/29/16 14:39	09/05/16 12:44	1
Pyrene	0.86	U	10	0.86	ug/L		08/29/16 14:39	09/05/16 12:44	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/29/16 14:39	09/05/16 12:44	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/29/16 14:39	09/05/16 12:44	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/29/16 14:39	09/05/16 12:44	1

Client Sample ID: RW-4A(62-72)-082516
Date Collected: 08/25/16 08:10
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 12:44	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/29/16 14:39	09/05/16 12:44	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/29/16 14:39	09/05/16 12:44	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/29/16 14:39	09/05/16 12:44	1
Acetophenone	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 12:44	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/29/16 14:39	09/05/16 12:44	1
Caprolactam	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 12:44	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/29/16 14:39	09/05/16 12:44	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/29/16 14:39	09/05/16 12:44	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/29/16 14:39	09/05/16 12:44	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 12:44	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 12:44	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 12:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*83*		*30 - 130*	*08/29/16 14:39*	*09/05/16 12:44*	*1*
Phenol-d5 (Surr)	*22*		*15 - 110*	*08/29/16 14:39*	*09/05/16 12:44*	*1*
Terphenyl-d14 (Surr)	*95*		*30 - 130*	*08/29/16 14:39*	*09/05/16 12:44*	*1*
2,4,6-Tribromophenol (Surr)	*84*		*15 - 110*	*08/29/16 14:39*	*09/05/16 12:44*	*1*
2-Fluorophenol (Surr)	*44*		*15 - 110*	*08/29/16 14:39*	*09/05/16 12:44*	*1*
2-Fluorobiphenyl	*81*		*30 - 130*	*08/29/16 14:39*	*09/05/16 12:44*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:07	1
PCB-1016	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:07	1
PCB-1221	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:07	1
PCB-1232	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:07	1
PCB-1242	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:07	1
PCB-1248	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 14:07	1
PCB-1254	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 14:07	1
PCB-1260	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 14:07	1
PCB-1262	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 14:07	1
PCB-1268	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 14:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*113*		*30 - 150*	*08/30/16 08:03*	*08/31/16 14:07*	*1*
Tetrachloro-m-xylene	*121*		*30 - 150*	*08/30/16 08:03*	*08/31/16 14:07*	*1*
DCB Decachlorobiphenyl	*82*		*30 - 150*	*08/30/16 08:03*	*08/31/16 14:07*	*1*
DCB Decachlorobiphenyl	*89*		*30 - 150*	*08/30/16 08:03*	*08/31/16 14:07*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.75**		0.12	0.030	mg/L			09/09/16 02:48	1
Sulfate	**11.4**		0.60	0.11	mg/L			09/09/16 02:48	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/03/16 19:37	09/08/16 06:48	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/03/16 19:37	09/08/16 06:48	2
Barium	**4.4**		4.0	1.2	ug/L		09/03/16 19:37	09/08/16 06:48	2

Client Sample ID: RW-4A(62-72)-082516
Date Collected: 08/25/16 08:10
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-2
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.24	U	0.80	0.24	ug/L		09/03/16 19:37	09/08/16 06:48	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/03/16 19:37	09/08/16 06:48	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 06:48	2
Chromium	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 06:48	2
Copper	**2.0**	**J**	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 06:48	2
Manganese	**2.9**	**J**	8.0	2.5	ug/L		09/03/16 19:37	09/08/16 06:48	2
Nickel	**21.3**		4.0	1.4	ug/L		09/03/16 19:37	09/08/16 06:48	2
Lead	**0.83**	**J**	1.2	0.38	ug/L		09/03/16 19:37	09/08/16 06:48	2
Antimony	0.62	U	2.0	0.62	ug/L		09/03/16 19:37	09/08/16 06:48	2
Selenium	0.73	U	10.0	0.73	ug/L		09/03/16 19:37	09/08/16 06:48	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/03/16 19:37	09/08/16 06:48	2
Zinc	**10.0**	**J**	16.0	7.0	ug/L		09/03/16 19:37	09/08/16 06:48	2
Aluminum	**121**		40.0	18.2	ug/L		09/03/16 19:37	09/08/16 06:48	2
Sodium	**5640**		200	69.0	ug/L		09/03/16 19:37	09/08/16 06:48	2
Magnesium	**3130**		200	63.6	ug/L		09/03/16 19:37	09/08/16 06:48	2
Potassium	**1240**		200	91.4	ug/L		09/03/16 19:37	09/09/16 00:41	2
Calcium	**9340**		200	60.5	ug/L		09/03/16 19:37	09/08/16 06:48	2
Iron	**147**		120	42.4	ug/L		09/03/16 19:37	09/08/16 06:48	2
Thallium	0.26	U	0.80	0.26	ug/L		09/03/16 19:37	09/08/16 06:48	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 11:28	09/07/16 15:50	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/07/16 11:28	09/07/16 15:50	2
Barium	**4.4**		4.0	1.2	ug/L		09/07/16 11:28	09/07/16 15:50	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 11:28	09/07/16 15:50	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 11:28	09/07/16 15:50	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 15:50	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 15:50	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 15:50	2
Manganese	2.5	U	8.0	2.5	ug/L		09/07/16 11:28	09/07/16 15:50	2
Nickel	**24.7**		4.0	1.4	ug/L		09/07/16 11:28	09/07/16 15:50	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 11:28	09/07/16 15:50	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 11:28	09/07/16 15:50	2
Selenium	0.73	U	10.0	0.73	ug/L		09/07/16 11:28	09/07/16 15:50	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 11:28	09/07/16 15:50	2
Zinc	**7.9**	**J**	16.0	7.0	ug/L		09/07/16 11:28	09/07/16 15:50	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/07/16 11:28	09/07/16 15:50	2
Sodium	**5520**		200	69.0	ug/L		09/07/16 11:28	09/07/16 15:50	2
Magnesium	**3720**		200	63.6	ug/L		09/07/16 11:28	09/07/16 15:50	2
Potassium	**1220**		200	91.4	ug/L		09/07/16 11:28	09/09/16 13:29	2
Calcium	**9300**		200	60.5	ug/L		09/07/16 11:28	09/07/16 15:50	2
Iron	42.4	U	120	42.4	ug/L		09/07/16 11:28	09/07/16 15:50	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 11:28	09/07/16 15:50	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:15	09/01/16 13:44	1

Client Sample ID: RW-4A(62-72)-082516

Lab Sample ID: 460-119270-2

Date Collected: 08/25/16 08:10

Matrix: Water

Date Received: 08/26/16 17:40

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:41	09/07/16 14:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 11:08	09/07/16 14:27	1
Bicarbonate Alkalinity as CaCO3	**40.2**		5.0	5.0	mg/L			09/08/16 15:18	1
Alkalinity	**40.2**		5.0	5.0	mg/L			09/08/16 15:18	1

Client Sample ID: RW-13(71-91)-082516

Lab Sample ID: 460-119270-3

Date Collected: 08/25/16 09:45

Matrix: Water

Date Received: 08/26/16 17:40

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 05:39	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 05:39	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 05:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*08/31/16 05:39*	*1*
4-Bromofluorobenzene	*87*		*70 - 130*		*08/31/16 05:39*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/01/16 04:32	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/01/16 04:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/01/16 04:32	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/01/16 04:32	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/01/16 04:32	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/01/16 04:32	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/01/16 04:32	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/01/16 04:32	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/01/16 04:32	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/01/16 04:32	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/01/16 04:32	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 04:32	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 04:32	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/01/16 04:32	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/01/16 04:32	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/01/16 04:32	1
Acetone	**8.4**		5.0	1.1	ug/L			09/01/16 04:32	1
Benzene	0.090	U	1.0	0.090	ug/L			09/01/16 04:32	1
Bromoform	0.18	U *	1.0	0.18	ug/L			09/01/16 04:32	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/01/16 04:32	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			09/01/16 04:32	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/01/16 04:32	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/01/16 04:32	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/01/16 04:32	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/01/16 04:32	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/01/16 04:32	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-13(71-91)-082516
Date Collected: 08/25/16 09:45
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	0.22	U	1.0	0.22	ug/L			09/01/16 04:32	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/01/16 04:32	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/01/16 04:32	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/01/16 04:32	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/01/16 04:32	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/01/16 04:32	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/01/16 04:32	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/01/16 04:32	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/01/16 04:32	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/01/16 04:32	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/01/16 04:32	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/01/16 04:32	1
Methylene Chloride	**0.35**	**J**	1.0	0.21	ug/L			09/01/16 04:32	1
Styrene	0.17	U	1.0	0.17	ug/L			09/01/16 04:32	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/01/16 04:32	1
Toluene	0.25	U	1.0	0.25	ug/L			09/01/16 04:32	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/01/16 04:32	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/01/16 04:32	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/01/16 04:32	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/01/16 04:32	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/01/16 04:32	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/01/16 04:32	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/01/16 04:32*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*09/01/16 04:32*	*1*
4-Bromofluorobenzene	*82*		*70 - 130*		*09/01/16 04:32*	*1*
Dibromofluoromethane (Surr)	*92*		*70 - 130*		*09/01/16 04:32*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*09/01/16 04:32*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/29/16 14:39	09/06/16 16:10	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/29/16 14:39	09/06/16 16:10	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/29/16 14:39	09/06/16 16:10	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/29/16 14:39	09/06/16 16:10	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/29/16 14:39	09/06/16 16:10	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/29/16 14:39	09/06/16 16:10	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/29/16 14:39	09/06/16 16:10	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/29/16 14:39	09/06/16 16:10	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/29/16 14:39	09/05/16 13:04	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/29/16 14:39	09/05/16 13:04	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/29/16 14:39	09/05/16 13:04	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/29/16 14:39	09/05/16 13:04	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/29/16 14:39	09/05/16 13:04	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-13(71-91)-082516
Date Collected: 08/25/16 09:45
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/29/16 14:39	09/05/16 13:04	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/29/16 14:39	09/05/16 13:04	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/29/16 14:39	09/05/16 13:04	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/29/16 14:39	09/05/16 13:04	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/29/16 14:39	09/05/16 13:04	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 13:04	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/29/16 14:39	09/05/16 13:04	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 13:04	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/29/16 14:39	09/05/16 13:04	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/29/16 14:39	09/05/16 13:04	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/29/16 14:39	09/05/16 13:04	1
Isophorone	0.70	U	10	0.70	ug/L		08/29/16 14:39	09/05/16 13:04	1
Naphthalene	0.83	U	10	0.83	ug/L		08/29/16 14:39	09/05/16 13:04	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/29/16 14:39	09/05/16 13:04	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/29/16 14:39	09/05/16 13:04	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/29/16 14:39	09/05/16 13:04	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/29/16 14:39	09/05/16 13:04	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/29/16 14:39	09/05/16 13:04	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 13:04	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 13:04	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 13:04	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/29/16 14:39	09/05/16 13:04	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 13:04	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/29/16 14:39	09/05/16 13:04	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/29/16 14:39	09/05/16 13:04	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 13:04	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 13:04	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 13:04	1
Fluorene	0.83	U	10	0.83	ug/L		08/29/16 14:39	09/05/16 13:04	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/29/16 14:39	09/05/16 13:04	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/29/16 14:39	09/05/16 13:04	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 13:04	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 13:04	1
Anthracene	0.59	U	10	0.59	ug/L		08/29/16 14:39	09/05/16 13:04	1
Carbazole	0.89	U	10	0.89	ug/L		08/29/16 14:39	09/05/16 13:04	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 13:04	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/29/16 14:39	09/05/16 13:04	1
Pyrene	0.86	U	10	0.86	ug/L		08/29/16 14:39	09/05/16 13:04	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/29/16 14:39	09/05/16 13:04	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/29/16 14:39	09/05/16 13:04	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/29/16 14:39	09/05/16 13:04	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 13:04	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/29/16 14:39	09/05/16 13:04	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/29/16 14:39	09/05/16 13:04	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/29/16 14:39	09/05/16 13:04	1
Acetophenone	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 13:04	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/29/16 14:39	09/05/16 13:04	1
Caprolactam	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 13:04	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/29/16 14:39	09/05/16 13:04	1

Client Sample ID: RW-13(71-91)-082516
Date Collected: 08/25/16 09:45
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/29/16 14:39	09/05/16 13:04	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/29/16 14:39	09/05/16 13:04	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 13:04	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 13:04	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 13:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*93*		*30 - 130*	*08/29/16 14:39*	*09/05/16 13:04*	*1*
Phenol-d5 (Surr)	*21*		*15 - 110*	*08/29/16 14:39*	*09/05/16 13:04*	*1*
Terphenyl-d14 (Surr)	*93*		*30 - 130*	*08/29/16 14:39*	*09/05/16 13:04*	*1*
2,4,6-Tribromophenol (Surr)	*94*		*15 - 110*	*08/29/16 14:39*	*09/05/16 13:04*	*1*
2-Fluorophenol (Surr)	*36*		*15 - 110*	*08/29/16 14:39*	*09/05/16 13:04*	*1*
2-Fluorobiphenyl	*83*		*30 - 130*	*08/29/16 14:39*	*09/05/16 13:04*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 13:50	1
PCB-1016	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 13:50	1
PCB-1221	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 13:50	1
PCB-1232	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 13:50	1
PCB-1242	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 13:50	1
PCB-1248	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 13:50	1
PCB-1254	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 13:50	1
PCB-1260	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 13:50	1
PCB-1262	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 13:50	1
PCB-1268	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 13:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*112*		*30 - 150*	*08/30/16 08:03*	*08/31/16 13:50*	*1*
Tetrachloro-m-xylene	*113*		*30 - 150*	*08/30/16 08:03*	*08/31/16 13:50*	*1*
DCB Decachlorobiphenyl	*96*		*30 - 150*	*08/30/16 08:03*	*08/31/16 13:50*	*1*
DCB Decachlorobiphenyl	*97*		*30 - 150*	*08/30/16 08:03*	*08/31/16 13:50*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**18.9**		0.60	0.11	mg/L			09/09/16 04:56	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**436**	**D**	24.0	6.00	mg/L			09/11/16 03:46	200

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/03/16 19:37	09/08/16 06:54	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/03/16 19:37	09/08/16 06:54	2
Barium	**11.2**		4.0	1.2	ug/L		09/03/16 19:37	09/08/16 06:54	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/03/16 19:37	09/08/16 06:54	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/03/16 19:37	09/08/16 06:54	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 06:54	2
Chromium	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 06:54	2
Copper	**2.4**	**J**	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 06:54	2

Client Sample ID: RW-13(71-91)-082516
Date Collected: 08/25/16 09:45
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-3
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	**3.9**	**J**	8.0	2.5	ug/L		09/03/16 19:37	09/08/16 06:54	2
Nickel	1.4	U	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 06:54	2
Lead	0.38	U	1.2	0.38	ug/L		09/03/16 19:37	09/08/16 06:54	2
Antimony	0.62	U	2.0	0.62	ug/L		09/03/16 19:37	09/08/16 06:54	2
Selenium	0.73	U	10.0	0.73	ug/L		09/03/16 19:37	09/08/16 06:54	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/03/16 19:37	09/08/16 06:54	2
Zinc	7.0	U	16.0	7.0	ug/L		09/03/16 19:37	09/08/16 06:54	2
Aluminum	**51.0**		40.0	18.2	ug/L		09/03/16 19:37	09/08/16 06:54	2
Sodium	**14100**		200	69.0	ug/L		09/03/16 19:37	09/08/16 06:54	2
Magnesium	**15100**		200	63.6	ug/L		09/03/16 19:37	09/08/16 06:54	2
Potassium	**3040**		200	91.4	ug/L		09/03/16 19:37	09/09/16 00:47	2
Calcium	**41200**		200	60.5	ug/L		09/03/16 19:37	09/08/16 06:54	2
Iron	**149**		120	42.4	ug/L		09/03/16 19:37	09/08/16 06:54	2
Thallium	0.26	U	0.80	0.26	ug/L		09/03/16 19:37	09/08/16 06:54	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 11:28	09/07/16 15:55	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/07/16 11:28	09/07/16 15:55	2
Barium	**11.4**		4.0	1.2	ug/L		09/07/16 11:28	09/07/16 15:55	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 11:28	09/07/16 15:55	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 11:28	09/07/16 15:55	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 15:55	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 15:55	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 15:55	2
Manganese	2.5	U	8.0	2.5	ug/L		09/07/16 11:28	09/07/16 15:55	2
Nickel	1.4	U	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 15:55	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 11:28	09/07/16 15:55	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 11:28	09/07/16 15:55	2
Selenium	0.73	U	10.0	0.73	ug/L		09/07/16 11:28	09/07/16 15:55	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 11:28	09/07/16 15:55	2
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 11:28	09/07/16 15:55	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/07/16 11:28	09/07/16 15:55	2
Sodium	**14300**		200	69.0	ug/L		09/07/16 11:28	09/07/16 15:55	2
Magnesium	**15300**		200	63.6	ug/L		09/07/16 11:28	09/07/16 15:55	2
Potassium	**3010**		200	91.4	ug/L		09/07/16 11:28	09/09/16 13:34	2
Calcium	**42600**		200	60.5	ug/L		09/07/16 11:28	09/07/16 15:55	2
Iron	42.4	U	120	42.4	ug/L		09/07/16 11:28	09/07/16 15:55	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 11:28	09/07/16 15:55	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:15	09/01/16 13:46	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:41	09/07/16 15:08	1

Client Sample ID: RW-13(71-91)-082516

Lab Sample ID: 460-119270-3

Date Collected: 08/25/16 09:45

Matrix: Water

Date Received: 08/26/16 17:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 11:08	09/07/16 14:29	1
Bicarbonate Alkalinity as CaCO3	**115**		5.0	5.0	mg/L			09/08/16 15:18	1
Alkalinity	**115**		5.0	5.0	mg/L			09/08/16 15:18	1

Client Sample ID: RW-12(130-140)-082516

Lab Sample ID: 460-119270-4

Date Collected: 08/25/16 12:25

Matrix: Water

Date Received: 08/26/16 17:40

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 06:04	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 06:04	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 06:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*70 - 130*		*08/31/16 06:04*	*1*
4-Bromofluorobenzene	*91*		*70 - 130*		*08/31/16 06:04*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/01/16 04:58	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/01/16 04:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/01/16 04:58	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/01/16 04:58	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/01/16 04:58	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/01/16 04:58	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/01/16 04:58	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/01/16 04:58	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/01/16 04:58	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/01/16 04:58	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/01/16 04:58	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 04:58	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 04:58	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/01/16 04:58	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/01/16 04:58	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/01/16 04:58	1
Acetone	**6.5**		5.0	1.1	ug/L			09/01/16 04:58	1
Benzene	0.090	U	1.0	0.090	ug/L			09/01/16 04:58	1
Bromoform	0.18	U *	1.0	0.18	ug/L			09/01/16 04:58	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/01/16 04:58	1
Carbon disulfide	**0.60**	**J**	1.0	0.22	ug/L			09/01/16 04:58	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/01/16 04:58	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/01/16 04:58	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/01/16 04:58	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/01/16 04:58	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/01/16 04:58	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/01/16 04:58	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/01/16 04:58	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/01/16 04:58	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/01/16 04:58	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-12(130-140)-082516
Date Collected: 08/25/16 12:25
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.54	J	1.0	0.26	ug/L			09/01/16 04:58	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/01/16 04:58	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/01/16 04:58	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/01/16 04:58	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/01/16 04:58	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/01/16 04:58	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/01/16 04:58	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/01/16 04:58	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/01/16 04:58	1
Styrene	0.17	U	1.0	0.17	ug/L			09/01/16 04:58	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/01/16 04:58	1
Toluene	0.25	U	1.0	0.25	ug/L			09/01/16 04:58	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/01/16 04:58	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/01/16 04:58	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/01/16 04:58	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/01/16 04:58	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/01/16 04:58	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/01/16 04:58	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/01/16 04:58*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*09/01/16 04:58*	*1*
4-Bromofluorobenzene	*82*		*70 - 130*		*09/01/16 04:58*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*09/01/16 04:58*	*1*
Toluene-d8 (Surr)	*97*		*70 - 130*		*09/01/16 04:58*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/29/16 14:39	09/06/16 16:40	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/29/16 14:39	09/06/16 16:40	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/29/16 14:39	09/06/16 16:40	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/29/16 14:39	09/06/16 16:40	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/29/16 14:39	09/06/16 16:40	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/29/16 14:39	09/06/16 16:40	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/29/16 14:39	09/06/16 16:40	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/29/16 14:39	09/06/16 16:40	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/29/16 14:39	09/05/16 13:23	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/29/16 14:39	09/05/16 13:23	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/29/16 14:39	09/05/16 13:23	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/29/16 14:39	09/05/16 13:23	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/29/16 14:39	09/05/16 13:23	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/29/16 14:39	09/05/16 13:23	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/29/16 14:39	09/05/16 13:23	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/29/16 14:39	09/05/16 13:23	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/29/16 14:39	09/05/16 13:23	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-12(130-140)-082516
Date Collected: 08/25/16 12:25
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/29/16 14:39	09/05/16 13:23	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 13:23	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/29/16 14:39	09/05/16 13:23	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 13:23	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/29/16 14:39	09/05/16 13:23	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/29/16 14:39	09/05/16 13:23	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/29/16 14:39	09/05/16 13:23	1
Isophorone	0.70	U	10	0.70	ug/L		08/29/16 14:39	09/05/16 13:23	1
Naphthalene	0.83	U	10	0.83	ug/L		08/29/16 14:39	09/05/16 13:23	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/29/16 14:39	09/05/16 13:23	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/29/16 14:39	09/05/16 13:23	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/29/16 14:39	09/05/16 13:23	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/29/16 14:39	09/05/16 13:23	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/29/16 14:39	09/05/16 13:23	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 13:23	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 13:23	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 13:23	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/29/16 14:39	09/05/16 13:23	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 13:23	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/29/16 14:39	09/05/16 13:23	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/29/16 14:39	09/05/16 13:23	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 13:23	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 13:23	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 13:23	1
Fluorene	0.83	U	10	0.83	ug/L		08/29/16 14:39	09/05/16 13:23	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/29/16 14:39	09/05/16 13:23	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/29/16 14:39	09/05/16 13:23	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 13:23	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 13:23	1
Anthracene	0.59	U	10	0.59	ug/L		08/29/16 14:39	09/05/16 13:23	1
Carbazole	0.89	U	10	0.89	ug/L		08/29/16 14:39	09/05/16 13:23	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 13:23	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/29/16 14:39	09/05/16 13:23	1
Pyrene	0.86	U	10	0.86	ug/L		08/29/16 14:39	09/05/16 13:23	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/29/16 14:39	09/05/16 13:23	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/29/16 14:39	09/05/16 13:23	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/29/16 14:39	09/05/16 13:23	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 13:23	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/29/16 14:39	09/05/16 13:23	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/29/16 14:39	09/05/16 13:23	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/29/16 14:39	09/05/16 13:23	1
Acetophenone	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 13:23	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/29/16 14:39	09/05/16 13:23	1
Caprolactam	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 13:23	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/29/16 14:39	09/05/16 13:23	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/29/16 14:39	09/05/16 13:23	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/29/16 14:39	09/05/16 13:23	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 13:23	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 13:23	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-12(130-140)-082516
Date Collected: 08/25/16 12:25
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 13:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*79*		*30 - 130*	*08/29/16 14:39*	*09/05/16 13:23*	*1*
Phenol-d5 (Surr)	*26*		*15 - 110*	*08/29/16 14:39*	*09/05/16 13:23*	*1*
Terphenyl-d14 (Surr)	*92*		*30 - 130*	*08/29/16 14:39*	*09/05/16 13:23*	*1*
2,4,6-Tribromophenol (Surr)	*105*		*15 - 110*	*08/29/16 14:39*	*09/05/16 13:23*	*1*
2-Fluorophenol (Surr)	*43*		*15 - 110*	*08/29/16 14:39*	*09/05/16 13:23*	*1*
2-Fluorobiphenyl	*81*		*30 - 130*	*08/29/16 14:39*	*09/05/16 13:23*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 13:32	1
PCB-1016	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 13:32	1
PCB-1221	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 13:32	1
PCB-1232	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 13:32	1
PCB-1242	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 13:32	1
PCB-1248	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 13:32	1
PCB-1254	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 13:32	1
PCB-1260	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 13:32	1
PCB-1262	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 13:32	1
PCB-1268	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 13:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*125*		*30 - 150*	*08/30/16 08:03*	*08/31/16 13:32*	*1*
Tetrachloro-m-xylene	*118*		*30 - 150*	*08/30/16 08:03*	*08/31/16 13:32*	*1*
DCB Decachlorobiphenyl	*92*		*30 - 150*	*08/30/16 08:03*	*08/31/16 13:32*	*1*
DCB Decachlorobiphenyl	*88*		*30 - 150*	*08/30/16 08:03*	*08/31/16 13:32*	*1*

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**183**	**D**	12.0	3.00	mg/L			09/11/16 04:04	100
Sulfate	**1390**	**D**	60.0	10.5	mg/L			09/11/16 04:04	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:00	2
Arsenic	**13.5**		2.0	0.64	ug/L		09/03/16 19:37	09/08/16 07:00	2
Barium	**15.1**		4.0	1.2	ug/L		09/03/16 19:37	09/08/16 07:00	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/03/16 19:37	09/08/16 07:00	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/03/16 19:37	09/08/16 07:00	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:00	2
Chromium	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:00	2
Copper	1.4	U	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 07:00	2
Manganese	**11.9**		8.0	2.5	ug/L		09/03/16 19:37	09/08/16 07:00	2
Nickel	**4.0**		4.0	1.4	ug/L		09/03/16 19:37	09/08/16 07:00	2
Lead	**0.41**	**J**	1.2	0.38	ug/L		09/03/16 19:37	09/08/16 07:00	2
Antimony	0.62	U	2.0	0.62	ug/L		09/03/16 19:37	09/08/16 07:00	2
Selenium	**0.92**	**J**	10.0	0.73	ug/L		09/03/16 19:37	09/08/16 07:00	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/03/16 19:37	09/08/16 07:00	2
Zinc	**42.2**		16.0	7.0	ug/L		09/03/16 19:37	09/08/16 07:00	2

Client Sample ID: RW-12(130-140)-082516
Date Collected: 08/25/16 12:25
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-4
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**877**		40.0	18.2	ug/L		09/03/16 19:37	09/08/16 07:00	2
Sodium	**84200**		200	69.0	ug/L		09/03/16 19:37	09/08/16 07:00	2
Magnesium	**710**		200	63.6	ug/L		09/03/16 19:37	09/08/16 07:00	2
Potassium	**9700**		200	91.4	ug/L		09/03/16 19:37	09/09/16 00:53	2
Calcium	**38500**		200	60.5	ug/L		09/03/16 19:37	09/08/16 07:00	2
Iron	**400**		120	42.4	ug/L		09/03/16 19:37	09/08/16 07:00	2
Thallium	0.26	U	0.80	0.26	ug/L		09/03/16 19:37	09/08/16 07:00	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:01	2
Arsenic	**15.0**		2.0	0.64	ug/L		09/07/16 11:28	09/07/16 16:01	2
Barium	**8.2**		4.0	1.2	ug/L		09/07/16 11:28	09/07/16 16:01	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 11:28	09/07/16 16:01	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 11:28	09/07/16 16:01	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:01	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:01	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 16:01	2
Manganese	2.5	U	8.0	2.5	ug/L		09/07/16 11:28	09/07/16 16:01	2
Nickel	1.4	U	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 16:01	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 11:28	09/07/16 16:01	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 11:28	09/07/16 16:01	2
Selenium	**1.2**	**J**	10.0	0.73	ug/L		09/07/16 11:28	09/07/16 16:01	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 11:28	09/07/16 16:01	2
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 11:28	09/07/16 16:01	2
Aluminum	**506**		40.0	18.2	ug/L		09/07/16 11:28	09/07/16 16:01	2
Sodium	**85100**		200	69.0	ug/L		09/07/16 11:28	09/07/16 16:01	2
Magnesium	63.6	U	200	63.6	ug/L		09/07/16 11:28	09/07/16 16:01	2
Potassium	**8730**		200	91.4	ug/L		09/07/16 11:28	09/09/16 13:40	2
Calcium	**35500**		200	60.5	ug/L		09/07/16 11:28	09/07/16 16:01	2
Iron	42.4	U	120	42.4	ug/L		09/07/16 11:28	09/07/16 16:01	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 11:28	09/07/16 16:01	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:15	09/01/16 13:48	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:41	09/07/16 15:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 11:08	09/07/16 14:30	1
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/08/16 15:18	1
Alkalinity	**129**		5.0	5.0	mg/L			09/08/16 15:18	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-8(204-214)-082516
Date Collected: 08/25/16 13:45
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-5
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 06:29	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 06:29	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 06:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*08/31/16 06:29*	*1*
4-Bromofluorobenzene	*84*		*70 - 130*		*08/31/16 06:29*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/01/16 05:24	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/01/16 05:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/01/16 05:24	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/01/16 05:24	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/01/16 05:24	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/01/16 05:24	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/01/16 05:24	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/01/16 05:24	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/01/16 05:24	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/01/16 05:24	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/01/16 05:24	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 05:24	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 05:24	1
2-Butanone (MEK)	**13**		5.0	2.2	ug/L			09/01/16 05:24	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/01/16 05:24	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/01/16 05:24	1
Acetone	**8.8**		5.0	1.1	ug/L			09/01/16 05:24	1
Benzene	**3.8**		1.0	0.090	ug/L			09/01/16 05:24	1
Bromoform	0.18	U *	1.0	0.18	ug/L			09/01/16 05:24	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/01/16 05:24	1
Carbon disulfide	**1.6**		1.0	0.22	ug/L			09/01/16 05:24	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/01/16 05:24	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/01/16 05:24	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/01/16 05:24	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/01/16 05:24	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/01/16 05:24	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/01/16 05:24	1
Chloromethane	**0.49**	**J**	1.0	0.22	ug/L			09/01/16 05:24	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/01/16 05:24	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/01/16 05:24	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/01/16 05:24	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/01/16 05:24	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/01/16 05:24	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/01/16 05:24	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/01/16 05:24	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/01/16 05:24	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/01/16 05:24	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/01/16 05:24	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/01/16 05:24	1
Styrene	0.17	U	1.0	0.17	ug/L			09/01/16 05:24	1

Client Sample ID: RW-8(204-214)-082516
Date Collected: 08/25/16 13:45
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/01/16 05:24	1
Toluene	0.25	U	1.0	0.25	ug/L			09/01/16 05:24	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/01/16 05:24	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/01/16 05:24	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/01/16 05:24	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/01/16 05:24	1
Vinyl chloride	**0.24**	**J**	1.0	0.060	ug/L			09/01/16 05:24	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/01/16 05:24	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/01/16 05:24*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*09/01/16 05:24*	*1*
4-Bromofluorobenzene	*84*		*70 - 130*		*09/01/16 05:24*	*1*
Dibromofluoromethane (Surr)	*91*		*70 - 130*		*09/01/16 05:24*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*09/01/16 05:24*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/29/16 14:39	09/06/16 17:09	1
Benzo[a]pyrene	0.028	U *	0.053	0.028	ug/L		08/29/16 14:39	09/06/16 17:09	1
Benzo[b]fluoranthene	0.013	U *	0.053	0.013	ug/L		08/29/16 14:39	09/06/16 17:09	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/06/16 17:09	1
Dibenz(a,h)anthracene	0.023	U *	0.053	0.023	ug/L		08/29/16 14:39	09/06/16 17:09	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/06/16 17:09	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/29/16 14:39	09/06/16 17:09	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/29/16 14:39	09/06/16 17:09	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	**4.2**	**J**	11	0.44	ug/L		08/29/16 14:39	09/05/16 13:43	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 13:43	1
2-Methylphenol	1.4	U	11	1.4	ug/L		08/29/16 14:39	09/05/16 13:43	1
4-Methylphenol	0.93	U	11	0.93	ug/L		08/29/16 14:39	09/05/16 13:43	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/29/16 14:39	09/05/16 13:43	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		08/29/16 14:39	09/05/16 13:43	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 13:43	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/29/16 14:39	09/05/16 13:43	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/29/16 14:39	09/05/16 13:43	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/29/16 14:39	09/05/16 13:43	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 13:43	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/29/16 14:39	09/05/16 13:43	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 13:43	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/29/16 14:39	09/05/16 13:43	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		08/29/16 14:39	09/05/16 13:43	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/29/16 14:39	09/05/16 13:43	1
Isophorone	0.71	U	11	0.71	ug/L		08/29/16 14:39	09/05/16 13:43	1
Naphthalene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 13:43	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		08/29/16 14:39	09/05/16 13:43	1

Client Sample ID: RW-8(204-214)-082516
Date Collected: 08/25/16 13:45
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/29/16 14:39	09/05/16 13:43	1
2-Methylnaphthalene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 13:43	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 13:43	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 13:43	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 13:43	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 13:43	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 13:43	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		08/29/16 14:39	09/05/16 13:43	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 13:43	1
Acenaphthene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 13:43	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 13:43	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 13:43	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 13:43	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 13:43	1
Fluorene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 13:43	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/29/16 14:39	09/05/16 13:43	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 13:43	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 13:43	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 13:43	1
Anthracene	0.61	U	11	0.61	ug/L		08/29/16 14:39	09/05/16 13:43	1
Carbazole	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 13:43	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 13:43	1
Fluoranthene	0.77	U	11	0.77	ug/L		08/29/16 14:39	09/05/16 13:43	1
Pyrene	0.88	U	11	0.88	ug/L		08/29/16 14:39	09/05/16 13:43	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/29/16 14:39	09/05/16 13:43	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/29/16 14:39	09/05/16 13:43	1
Bis(2-ethylhexyl) phthalate	0.77	U	2.1	0.77	ug/L		08/29/16 14:39	09/05/16 13:43	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 13:43	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/29/16 14:39	09/05/16 13:43	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		08/29/16 14:39	09/05/16 13:43	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 13:43	1
Acetophenone	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 13:43	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/29/16 14:39	09/05/16 13:43	1
Caprolactam	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 13:43	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/29/16 14:39	09/05/16 13:43	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/29/16 14:39	09/05/16 13:43	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/29/16 14:39	09/05/16 13:43	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 13:43	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 13:43	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 13:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*88*		*30 - 130*	*08/29/16 14:39*	*09/05/16 13:43*	*1*
Phenol-d5 (Surr)	*28*		*15 - 110*	*08/29/16 14:39*	*09/05/16 13:43*	*1*
Terphenyl-d14 (Surr)	*92*		*30 - 130*	*08/29/16 14:39*	*09/05/16 13:43*	*1*
2,4,6-Tribromophenol (Surr)	*106*		*15 - 110*	*08/29/16 14:39*	*09/05/16 13:43*	*1*
2-Fluorophenol (Surr)	*46*		*15 - 110*	*08/29/16 14:39*	*09/05/16 13:43*	*1*
2-Fluorobiphenyl	*91*		*30 - 130*	*08/29/16 14:39*	*09/05/16 13:43*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-8(204-214)-082516
Date Collected: 08/25/16 13:45
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-5
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 13:14	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 13:14	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 13:14	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 13:14	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 13:14	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 13:14	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 13:14	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 13:14	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 13:14	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 13:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*68*		*30 - 150*	*08/30/16 08:03*	*08/31/16 13:14*	*1*
Tetrachloro-m-xylene	*75*		*30 - 150*	*08/30/16 08:03*	*08/31/16 13:14*	*1*
DCB Decachlorobiphenyl	*57*		*30 - 150*	*08/30/16 08:03*	*08/31/16 13:14*	*1*
DCB Decachlorobiphenyl	*78*		*30 - 150*	*08/30/16 08:03*	*08/31/16 13:14*	*1*

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**123**	**D**	12.0	3.00	mg/L			09/11/16 04:23	100
Sulfate	**182**	**D**	60.0	10.5	mg/L			09/11/16 04:23	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:11	2
Arsenic	**1.8**	**J**	2.0	0.64	ug/L		09/03/16 19:37	09/08/16 07:11	2
Barium	**8.1**		4.0	1.2	ug/L		09/03/16 19:37	09/08/16 07:11	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/03/16 19:37	09/08/16 07:11	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/03/16 19:37	09/08/16 07:11	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:11	2
Chromium	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:11	2
Copper	1.4	U	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 07:11	2
Manganese	**5.9**	**J**	8.0	2.5	ug/L		09/03/16 19:37	09/08/16 07:11	2
Nickel	**4.5**		4.0	1.4	ug/L		09/03/16 19:37	09/08/16 07:11	2
Lead	0.38	U	1.2	0.38	ug/L		09/03/16 19:37	09/08/16 07:11	2
Antimony	0.62	U	2.0	0.62	ug/L		09/03/16 19:37	09/08/16 07:11	2
Selenium	0.73	U	10.0	0.73	ug/L		09/03/16 19:37	09/08/16 07:11	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/03/16 19:37	09/08/16 07:11	2
Zinc	7.0	U	16.0	7.0	ug/L		09/03/16 19:37	09/08/16 07:11	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/03/16 19:37	09/08/16 07:11	2
Sodium	**86300**		200	69.0	ug/L		09/03/16 19:37	09/08/16 07:11	2
Magnesium	**10700**		200	63.6	ug/L		09/03/16 19:37	09/08/16 07:11	2
Potassium	**128000**		200	91.4	ug/L		09/03/16 19:37	09/09/16 00:59	2
Calcium	**10400**		200	60.5	ug/L		09/03/16 19:37	09/08/16 07:11	2
Iron	**73.2**	**J**	120	42.4	ug/L		09/03/16 19:37	09/08/16 07:11	2
Thallium	0.26	U	0.80	0.26	ug/L		09/03/16 19:37	09/08/16 07:11	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:07	2

Client Sample ID: RW-8(204-214)-082516

Lab Sample ID: 460-119270-5

Date Collected: 08/25/16 13:45

Matrix: Water

Date Received: 08/26/16 17:40

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**1.7**	**J**	2.0	0.64	ug/L		09/07/16 11:28	09/07/16 16:07	2
Barium	**5.8**		4.0	1.2	ug/L		09/07/16 11:28	09/07/16 16:07	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 11:28	09/07/16 16:07	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 11:28	09/07/16 16:07	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:07	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:07	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 16:07	2
Manganese	2.5	U	8.0	2.5	ug/L		09/07/16 11:28	09/07/16 16:07	2
Nickel	**3.9**	**J**	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 16:07	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 11:28	09/07/16 16:07	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 11:28	09/07/16 16:07	2
Selenium	0.73	U	10.0	0.73	ug/L		09/07/16 11:28	09/07/16 16:07	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 11:28	09/07/16 16:07	2
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 11:28	09/07/16 16:07	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/07/16 11:28	09/07/16 16:07	2
Sodium	**89100**		200	69.0	ug/L		09/07/16 11:28	09/07/16 16:07	2
Magnesium	**10300**		200	63.6	ug/L		09/07/16 11:28	09/07/16 16:07	2
Potassium	**138000**		200	91.4	ug/L		09/07/16 11:28	09/09/16 13:45	2
Calcium	**7600**		200	60.5	ug/L		09/07/16 11:28	09/07/16 16:07	2
Iron	**44.1**	**J**	120	42.4	ug/L		09/07/16 11:28	09/07/16 16:07	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 11:28	09/07/16 16:07	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:15	09/01/16 13:50	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:41	09/07/16 15:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 11:08	09/07/16 14:31	1
Bicarbonate Alkalinity as CaCO3	**125**		5.0	5.0	mg/L			09/08/16 15:18	1
Alkalinity	**277**		5.0	5.0	mg/L			09/08/16 15:18	1

Client Sample ID: RW-8(163-173)-082516

Lab Sample ID: 460-119270-6

Date Collected: 08/25/16 16:05

Matrix: Water

Date Received: 08/26/16 17:40

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 06:54	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 06:54	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 06:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*08/31/16 06:54*	*1*
4-Bromofluorobenzene	*93*		*70 - 130*		*08/31/16 06:54*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-8(163-173)-082516
Date Collected: 08/25/16 16:05
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/01/16 05:49	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/01/16 05:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/01/16 05:49	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/01/16 05:49	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/01/16 05:49	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/01/16 05:49	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/01/16 05:49	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/01/16 05:49	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/01/16 05:49	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/01/16 05:49	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/01/16 05:49	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 05:49	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 05:49	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/01/16 05:49	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/01/16 05:49	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/01/16 05:49	1
Acetone	**6.5**		5.0	1.1	ug/L			09/01/16 05:49	1
Benzene	**0.35**	**J**	1.0	0.090	ug/L			09/01/16 05:49	1
Bromoform	0.18	U *	1.0	0.18	ug/L			09/01/16 05:49	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/01/16 05:49	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			09/01/16 05:49	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/01/16 05:49	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/01/16 05:49	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/01/16 05:49	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/01/16 05:49	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/01/16 05:49	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/01/16 05:49	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/01/16 05:49	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/01/16 05:49	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/01/16 05:49	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/01/16 05:49	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/01/16 05:49	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/01/16 05:49	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/01/16 05:49	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/01/16 05:49	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/01/16 05:49	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/01/16 05:49	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/01/16 05:49	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/01/16 05:49	1
Styrene	0.17	U	1.0	0.17	ug/L			09/01/16 05:49	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/01/16 05:49	1
Toluene	0.25	U	1.0	0.25	ug/L			09/01/16 05:49	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/01/16 05:49	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/01/16 05:49	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/01/16 05:49	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/01/16 05:49	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/01/16 05:49	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/01/16 05:49	1

Client Sample ID: RW-8(163-173)-082516
Date Collected: 08/25/16 16:05
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-6
Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/01/16 05:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		09/01/16 05:49	1
4-Bromofluorobenzene	83		70 - 130		09/01/16 05:49	1
Dibromofluoromethane (Surr)	92		70 - 130		09/01/16 05:49	1
Toluene-d8 (Surr)	98		70 - 130		09/01/16 05:49	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		08/29/16 14:39	09/06/16 17:38	1
Benzo[a]pyrene	0.027	U *	0.052	0.027	ug/L		08/29/16 14:39	09/06/16 17:38	1
Benzo[b]fluoranthene	0.013	U *	0.052	0.013	ug/L		08/29/16 14:39	09/06/16 17:38	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		08/29/16 14:39	09/06/16 17:38	1
Dibenz(a,h)anthracene	0.023	U *	0.052	0.023	ug/L		08/29/16 14:39	09/06/16 17:38	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		08/29/16 14:39	09/06/16 17:38	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		08/29/16 14:39	09/06/16 17:38	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		08/29/16 14:39	09/06/16 17:38	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		08/29/16 14:39	09/05/16 14:03	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		08/29/16 14:39	09/05/16 14:03	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/29/16 14:39	09/05/16 14:03	1
4-Methylphenol	0.91	U	10	0.91	ug/L		08/29/16 14:39	09/05/16 14:03	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		08/29/16 14:39	09/05/16 14:03	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		08/29/16 14:39	09/05/16 14:03	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		08/29/16 14:39	09/05/16 14:03	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		08/29/16 14:39	09/05/16 14:03	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		08/29/16 14:39	09/05/16 14:03	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		08/29/16 14:39	09/05/16 14:03	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 14:03	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		08/29/16 14:39	09/05/16 14:03	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 14:03	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		08/29/16 14:39	09/05/16 14:03	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		08/29/16 14:39	09/05/16 14:03	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		08/29/16 14:39	09/05/16 14:03	1
Isophorone	0.70	U	10	0.70	ug/L		08/29/16 14:39	09/05/16 14:03	1
Naphthalene	0.83	U	10	0.83	ug/L		08/29/16 14:39	09/05/16 14:03	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		08/29/16 14:39	09/05/16 14:03	1
Hexachlorobutadiene	0.79	U	1.0	0.79	ug/L		08/29/16 14:39	09/05/16 14:03	1
2-Methylnaphthalene	0.92	U	10	0.92	ug/L		08/29/16 14:39	09/05/16 14:03	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		08/29/16 14:39	09/05/16 14:03	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		08/29/16 14:39	09/05/16 14:03	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 14:03	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 14:03	1
Acenaphthylene	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 14:03	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		08/29/16 14:39	09/05/16 14:03	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 14:03	1
Acenaphthene	0.92	U	10	0.92	ug/L		08/29/16 14:39	09/05/16 14:03	1
Dibenzofuran	0.89	U	10	0.89	ug/L		08/29/16 14:39	09/05/16 14:03	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-8(163-173)-082516
Date Collected: 08/25/16 16:05
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 14:03	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 14:03	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 14:03	1
Fluorene	0.83	U	10	0.83	ug/L		08/29/16 14:39	09/05/16 14:03	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		08/29/16 14:39	09/05/16 14:03	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		08/29/16 14:39	09/05/16 14:03	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 14:03	1
Phenanthrene	0.68	U	10	0.68	ug/L		08/29/16 14:39	09/05/16 14:03	1
Anthracene	0.59	U	10	0.59	ug/L		08/29/16 14:39	09/05/16 14:03	1
Carbazole	0.89	U	10	0.89	ug/L		08/29/16 14:39	09/05/16 14:03	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 14:03	1
Fluoranthene	0.75	U	10	0.75	ug/L		08/29/16 14:39	09/05/16 14:03	1
Pyrene	0.86	U	10	0.86	ug/L		08/29/16 14:39	09/05/16 14:03	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		08/29/16 14:39	09/05/16 14:03	1
Chrysene	0.70	U	2.1	0.70	ug/L		08/29/16 14:39	09/05/16 14:03	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		08/29/16 14:39	09/05/16 14:03	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 14:03	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		08/29/16 14:39	09/05/16 14:03	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		08/29/16 14:39	09/05/16 14:03	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		08/29/16 14:39	09/05/16 14:03	1
Acetophenone	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 14:03	1
Benzaldehyde	0.90	U	10	0.90	ug/L		08/29/16 14:39	09/05/16 14:03	1
Caprolactam	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 14:03	1
Atrazine	0.80	U	2.1	0.80	ug/L		08/29/16 14:39	09/05/16 14:03	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		08/29/16 14:39	09/05/16 14:03	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		08/29/16 14:39	09/05/16 14:03	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 14:03	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 14:03	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 14:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*87*		*30 - 130*	*08/29/16 14:39*	*09/05/16 14:03*	*1*
Phenol-d5 (Surr)	*21*		*15 - 110*	*08/29/16 14:39*	*09/05/16 14:03*	*1*
Terphenyl-d14 (Surr)	*84*		*30 - 130*	*08/29/16 14:39*	*09/05/16 14:03*	*1*
2,4,6-Tribromophenol (Surr)	*81*		*15 - 110*	*08/29/16 14:39*	*09/05/16 14:03*	*1*
2-Fluorophenol (Surr)	*35*		*15 - 110*	*08/29/16 14:39*	*09/05/16 14:03*	*1*
2-Fluorobiphenyl	*77*		*30 - 130*	*08/29/16 14:39*	*09/05/16 14:03*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 12:56	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 12:56	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 12:56	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 12:56	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 12:56	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 12:56	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 12:56	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 12:56	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 12:56	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 12:56	1

Client Sample ID: RW-8(163-173)-082516

Date Collected: 08/25/16 16:05
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-6

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*110*		*30 - 150*	*08/30/16 08:03*	*08/31/16 12:56*	*1*
Tetrachloro-m-xylene	*119*		*30 - 150*	*08/30/16 08:03*	*08/31/16 12:56*	*1*
DCB Decachlorobiphenyl	*91*		*30 - 150*	*08/30/16 08:03*	*08/31/16 12:56*	*1*
DCB Decachlorobiphenyl	*100*		*30 - 150*	*08/30/16 08:03*	*08/31/16 12:56*	*1*

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.9**	**D**	12.0	3.00	mg/L			09/11/16 04:41	100
Sulfate	**140**	**D**	60.0	10.5	mg/L			09/11/16 04:41	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:35	2
Arsenic	**1.5**	**J**	2.0	0.64	ug/L		09/03/16 19:37	09/08/16 07:35	2
Barium	**9.7**		4.0	1.2	ug/L		09/03/16 19:37	09/08/16 07:35	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/03/16 19:37	09/08/16 07:35	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/03/16 19:37	09/08/16 07:35	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:35	2
Chromium	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:35	2
Copper	1.4	U	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 07:35	2
Manganese	**14.7**		8.0	2.5	ug/L		09/03/16 19:37	09/08/16 07:35	2
Nickel	**2.3**	**J**	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 07:35	2
Lead	0.38	U	1.2	0.38	ug/L		09/03/16 19:37	09/08/16 07:35	2
Antimony	0.62	U	2.0	0.62	ug/L		09/03/16 19:37	09/08/16 07:35	2
Selenium	0.73	U	10.0	0.73	ug/L		09/03/16 19:37	09/08/16 07:35	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/03/16 19:37	09/08/16 07:35	2
Zinc	7.0	U	16.0	7.0	ug/L		09/03/16 19:37	09/08/16 07:35	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/03/16 19:37	09/08/16 07:35	2
Sodium	**43800**		200	69.0	ug/L		09/03/16 19:37	09/08/16 07:35	2
Magnesium	**5460**		200	63.6	ug/L		09/03/16 19:37	09/08/16 07:35	2
Potassium	**2210**		200	91.4	ug/L		09/03/16 19:37	09/09/16 01:05	2
Calcium	**34300**		200	60.5	ug/L		09/03/16 19:37	09/08/16 07:35	2
Iron	42.4	U	120	42.4	ug/L		09/03/16 19:37	09/08/16 07:35	2
Thallium	0.26	U	0.80	0.26	ug/L		09/03/16 19:37	09/08/16 07:35	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:12	2
Arsenic	**1.6**	**J**	2.0	0.64	ug/L		09/07/16 11:28	09/07/16 16:12	2
Barium	**9.5**		4.0	1.2	ug/L		09/07/16 11:28	09/07/16 16:12	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 11:28	09/07/16 16:12	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 11:28	09/07/16 16:12	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:12	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:12	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 16:12	2
Manganese	**15.1**		8.0	2.5	ug/L		09/07/16 11:28	09/07/16 16:12	2
Nickel	**1.6**	**J**	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 16:12	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 11:28	09/07/16 16:12	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 11:28	09/07/16 16:12	2
Selenium	0.73	U	10.0	0.73	ug/L		09/07/16 11:28	09/07/16 16:12	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 11:28	09/07/16 16:12	2

Client Sample ID: RW-8(163-173)-082516

Lab Sample ID: 460-119270-6

Date Collected: 08/25/16 16:05

Matrix: Water

Date Received: 08/26/16 17:40

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 11:28	09/07/16 16:12	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/07/16 11:28	09/07/16 16:12	2
Sodium	**42100**		200	69.0	ug/L		09/07/16 11:28	09/07/16 16:12	2
Magnesium	**6710**		200	63.6	ug/L		09/07/16 11:28	09/07/16 16:12	2
Potassium	**2030**		200	91.4	ug/L		09/07/16 11:28	09/09/16 13:51	2
Calcium	**34600**		200	60.5	ug/L		09/07/16 11:28	09/07/16 16:12	2
Iron	42.4	U	120	42.4	ug/L		09/07/16 11:28	09/07/16 16:12	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 11:28	09/07/16 16:12	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:15	09/01/16 13:56	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:41	09/07/16 15:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 11:08	09/07/16 14:32	1
Bicarbonate Alkalinity as CaCO3	**82.4**		5.0	5.0	mg/L			09/08/16 15:18	1
Alkalinity	**82.4**		5.0	5.0	mg/L			09/08/16 15:18	1

Client Sample ID: RW-13(100-120)-082616

Lab Sample ID: 460-119270-7

Date Collected: 08/26/16 07:45

Matrix: Water

Date Received: 08/26/16 17:40

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 07:19	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 07:19	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 07:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*08/31/16 07:19*	*1*
4-Bromofluorobenzene	*84*		*70 - 130*		*08/31/16 07:19*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/01/16 06:15	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/01/16 06:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/01/16 06:15	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/01/16 06:15	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/01/16 06:15	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/01/16 06:15	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/01/16 06:15	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/01/16 06:15	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/01/16 06:15	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/01/16 06:15	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/01/16 06:15	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 06:15	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-13(100-120)-082616
Date Collected: 08/26/16 07:45
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 06:15	1
2-Butanone (MEK)	**3.6**	**J**	5.0	2.2	ug/L			09/01/16 06:15	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/01/16 06:15	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/01/16 06:15	1
Acetone	**25**		5.0	1.1	ug/L			09/01/16 06:15	1
Benzene	0.090	U	1.0	0.090	ug/L			09/01/16 06:15	1
Bromoform	0.18	U *	1.0	0.18	ug/L			09/01/16 06:15	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/01/16 06:15	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			09/01/16 06:15	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/01/16 06:15	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/01/16 06:15	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/01/16 06:15	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/01/16 06:15	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/01/16 06:15	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/01/16 06:15	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/01/16 06:15	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/01/16 06:15	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/01/16 06:15	1
Cyclohexane	**0.45**	**J**	1.0	0.26	ug/L			09/01/16 06:15	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/01/16 06:15	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/01/16 06:15	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/01/16 06:15	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/01/16 06:15	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/01/16 06:15	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/01/16 06:15	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/01/16 06:15	1
Methylene Chloride	**0.24**	**J**	1.0	0.21	ug/L			09/01/16 06:15	1
Styrene	0.17	U	1.0	0.17	ug/L			09/01/16 06:15	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/01/16 06:15	1
Toluene	**0.99**	**J**	1.0	0.25	ug/L			09/01/16 06:15	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/01/16 06:15	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/01/16 06:15	1
Trichloroethene	**0.37**	**J**	1.0	0.22	ug/L			09/01/16 06:15	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/01/16 06:15	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/01/16 06:15	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/01/16 06:15	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/01/16 06:15*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*09/01/16 06:15*	*1*
4-Bromofluorobenzene	*84*		*70 - 130*		*09/01/16 06:15*	*1*
Dibromofluoromethane (Surr)	*92*		*70 - 130*		*09/01/16 06:15*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*09/01/16 06:15*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.040	U	0.053	0.040	ug/L		08/29/16 14:39	09/06/16 18:08	1
Benzo[a]pyrene	0.028	U *	0.053	0.028	ug/L		08/29/16 14:39	09/06/16 18:08	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-13(100-120)-082616
Date Collected: 08/26/16 07:45
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-7
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.013	U *	0.053	0.013	ug/L		08/29/16 14:39	09/06/16 18:08	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/06/16 18:08	1
Dibenz(a,h)anthracene	0.024	U *	0.053	0.024	ug/L		08/29/16 14:39	09/06/16 18:08	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/06/16 18:08	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/29/16 14:39	09/06/16 18:08	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/29/16 14:39	09/06/16 18:08	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	**4.8**	**J**	11	0.44	ug/L		08/29/16 14:39	09/05/16 14:22	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 14:22	1
2-Methylphenol	1.4	U	11	1.4	ug/L		08/29/16 14:39	09/05/16 14:22	1
4-Methylphenol	0.93	U	11	0.93	ug/L		08/29/16 14:39	09/05/16 14:22	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/29/16 14:39	09/05/16 14:22	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		08/29/16 14:39	09/05/16 14:22	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 14:22	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/29/16 14:39	09/05/16 14:22	1
2,4,6-Trichlorophenol	0.57	U	11	0.57	ug/L		08/29/16 14:39	09/05/16 14:22	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/29/16 14:39	09/05/16 14:22	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 14:22	1
4-Nitrophenol	5.0	U	21	5.0	ug/L		08/29/16 14:39	09/05/16 14:22	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 14:22	1
N-Nitrosodi-n-propylamine	0.89	U	1.1	0.89	ug/L		08/29/16 14:39	09/05/16 14:22	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		08/29/16 14:39	09/05/16 14:22	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/29/16 14:39	09/05/16 14:22	1
Isophorone	0.72	U	11	0.72	ug/L		08/29/16 14:39	09/05/16 14:22	1
Naphthalene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 14:22	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		08/29/16 14:39	09/05/16 14:22	1
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/29/16 14:39	09/05/16 14:22	1
2-Methylnaphthalene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 14:22	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 14:22	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 14:22	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 14:22	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 14:22	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 14:22	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		08/29/16 14:39	09/05/16 14:22	1
3-Nitroaniline	0.88	U	11	0.88	ug/L		08/29/16 14:39	09/05/16 14:22	1
Acenaphthene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 14:22	1
Dibenzofuran	0.91	U	11	0.91	ug/L		08/29/16 14:39	09/05/16 14:22	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 14:22	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 14:22	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 14:22	1
Fluorene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 14:22	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/29/16 14:39	09/05/16 14:22	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 14:22	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 14:22	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 14:22	1
Anthracene	0.61	U	11	0.61	ug/L		08/29/16 14:39	09/05/16 14:22	1
Carbazole	0.91	U	11	0.91	ug/L		08/29/16 14:39	09/05/16 14:22	1
Di-n-butyl phthalate	0.88	U	11	0.88	ug/L		08/29/16 14:39	09/05/16 14:22	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-13(100-120)-082616
Date Collected: 08/26/16 07:45
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.77	U	11	0.77	ug/L		08/29/16 14:39	09/05/16 14:22	1
Pyrene	0.89	U	11	0.89	ug/L		08/29/16 14:39	09/05/16 14:22	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/29/16 14:39	09/05/16 14:22	1
Chrysene	0.72	U	2.1	0.72	ug/L		08/29/16 14:39	09/05/16 14:22	1
Bis(2-ethylhexyl) phthalate	0.77	U	2.1	0.77	ug/L		08/29/16 14:39	09/05/16 14:22	1
Di-n-octyl phthalate	0.74	U	11	0.74	ug/L		08/29/16 14:39	09/05/16 14:22	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/29/16 14:39	09/05/16 14:22	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		08/29/16 14:39	09/05/16 14:22	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 14:22	1
Acetophenone	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 14:22	1
Benzaldehyde	0.92	U	11	0.92	ug/L		08/29/16 14:39	09/05/16 14:22	1
Caprolactam	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 14:22	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/29/16 14:39	09/05/16 14:22	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/29/16 14:39	09/05/16 14:22	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/29/16 14:39	09/05/16 14:22	1
2,3,4,6-Tetrachlorophenol	0.74	U	11	0.74	ug/L		08/29/16 14:39	09/05/16 14:22	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 14:22	1
Bis(2-chloroethoxy)methane	0.74	U	11	0.74	ug/L		08/29/16 14:39	09/05/16 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*66*		*30 - 130*	*08/29/16 14:39*	*09/05/16 14:22*	*1*
Phenol-d5 (Surr)	*32*		*15 - 110*	*08/29/16 14:39*	*09/05/16 14:22*	*1*
Terphenyl-d14 (Surr)	*95*		*30 - 130*	*08/29/16 14:39*	*09/05/16 14:22*	*1*
2,4,6-Tribromophenol (Surr)	*105*		*15 - 110*	*08/29/16 14:39*	*09/05/16 14:22*	*1*
2-Fluorophenol (Surr)	*52*		*15 - 110*	*08/29/16 14:39*	*09/05/16 14:22*	*1*
2-Fluorobiphenyl	*87*		*30 - 130*	*08/29/16 14:39*	*09/05/16 14:22*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 12:38	1
PCB-1016	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 12:38	1
PCB-1221	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 12:38	1
PCB-1232	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 12:38	1
PCB-1242	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 12:38	1
PCB-1248	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	08/31/16 12:38	1
PCB-1254	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 12:38	1
PCB-1260	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 12:38	1
PCB-1262	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 12:38	1
PCB-1268	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	08/31/16 12:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*125*		*30 - 150*	*08/30/16 08:03*	*08/31/16 12:38*	*1*
Tetrachloro-m-xylene	*131*		*30 - 150*	*08/30/16 08:03*	*08/31/16 12:38*	*1*
DCB Decachlorobiphenyl	*90*		*30 - 150*	*08/30/16 08:03*	*08/31/16 12:38*	*1*
DCB Decachlorobiphenyl	*98*		*30 - 150*	*08/30/16 08:03*	*08/31/16 12:38*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:40	2
Arsenic	**3.1**		2.0	0.64	ug/L		09/03/16 19:37	09/08/16 07:40	2

Client Sample ID: RW-13(100-120)-082616
Lab Sample ID: 460-119270-7
Date Collected: 08/26/16 07:45
Matrix: Water
Date Received: 08/26/16 17:40

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**17.7**		4.0	1.2	ug/L		09/03/16 19:37	09/08/16 07:40	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/03/16 19:37	09/08/16 07:40	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/03/16 19:37	09/08/16 07:40	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:40	2
Chromium	**22.3**		4.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:40	2
Copper	**14.8**		4.0	1.4	ug/L		09/03/16 19:37	09/08/16 07:40	2
Manganese	2.5	U	8.0	2.5	ug/L		09/03/16 19:37	09/08/16 07:40	2
Nickel	**2.8**	**J**	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 07:40	2
Lead	**0.78**	**J**	1.2	0.38	ug/L		09/03/16 19:37	09/08/16 07:40	2
Antimony	0.62	U	2.0	0.62	ug/L		09/03/16 19:37	09/08/16 07:40	2
Selenium	**9.2**	**J**	10.0	0.73	ug/L		09/03/16 19:37	09/08/16 07:40	2
Vanadium	**44.1**		4.0	1.9	ug/L		09/03/16 19:37	09/08/16 07:40	2
Zinc	7.0	U	16.0	7.0	ug/L		09/03/16 19:37	09/08/16 07:40	2
Aluminum	**5080**		40.0	18.2	ug/L		09/03/16 19:37	09/08/16 07:40	2
Sodium	**190000**		200	69.0	ug/L		09/03/16 19:37	09/08/16 07:40	2
Magnesium	63.6	U	200	63.6	ug/L		09/03/16 19:37	09/08/16 07:40	2
Potassium	**185000**		200	91.4	ug/L		09/03/16 19:37	09/09/16 01:10	2
Calcium	**13800**		200	60.5	ug/L		09/03/16 19:37	09/08/16 07:40	2
Iron	**344**		120	42.4	ug/L		09/03/16 19:37	09/08/16 07:40	2
Thallium	0.26	U	0.80	0.26	ug/L		09/03/16 19:37	09/08/16 07:40	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:15	09/01/16 13:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 11:08	09/07/16 14:33	1

Client Sample ID: RW-13(150-170)-082616
Lab Sample ID: 460-119270-8
Date Collected: 08/26/16 08:25
Matrix: Water
Date Received: 08/26/16 17:40

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 07:44	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 07:44	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 07:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*08/31/16 07:44*	*1*
4-Bromofluorobenzene	*93*		*70 - 130*		*08/31/16 07:44*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/01/16 06:41	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/01/16 06:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/01/16 06:41	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/01/16 06:41	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/01/16 06:41	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/01/16 06:41	1

Client Sample ID: RW-13(150-170)-082616
Date Collected: 08/26/16 08:25
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/01/16 06:41	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/01/16 06:41	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/01/16 06:41	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/01/16 06:41	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/01/16 06:41	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 06:41	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 06:41	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/01/16 06:41	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/01/16 06:41	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/01/16 06:41	1
Acetone	**4.5**	**J**	5.0	1.1	ug/L			09/01/16 06:41	1
Benzene	0.090	U	1.0	0.090	ug/L			09/01/16 06:41	1
Bromoform	0.18	U *	1.0	0.18	ug/L			09/01/16 06:41	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/01/16 06:41	1
Carbon disulfide	**0.37**	**J**	1.0	0.22	ug/L			09/01/16 06:41	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/01/16 06:41	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/01/16 06:41	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/01/16 06:41	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/01/16 06:41	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/01/16 06:41	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/01/16 06:41	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/01/16 06:41	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/01/16 06:41	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/01/16 06:41	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/01/16 06:41	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/01/16 06:41	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/01/16 06:41	1
Ethylbenzene	**0.48**	**J**	1.0	0.30	ug/L			09/01/16 06:41	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/01/16 06:41	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/01/16 06:41	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/01/16 06:41	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/01/16 06:41	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/01/16 06:41	1
Styrene	0.17	U	1.0	0.17	ug/L			09/01/16 06:41	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/01/16 06:41	1
Toluene	**0.33**	**J**	1.0	0.25	ug/L			09/01/16 06:41	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/01/16 06:41	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/01/16 06:41	1
Trichloroethene	**0.69**	**J**	1.0	0.22	ug/L			09/01/16 06:41	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/01/16 06:41	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/01/16 06:41	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/01/16 06:41	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/01/16 06:41*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*09/01/16 06:41*	*1*
4-Bromofluorobenzene	*83*		*70 - 130*		*09/01/16 06:41*	*1*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*09/01/16 06:41*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-13(150-170)-082616
Date Collected: 08/26/16 08:25
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		70 - 130		09/01/16 06:41	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/29/16 14:39	09/06/16 18:37	1
Benzo[a]pyrene	0.028	U *	0.053	0.028	ug/L		08/29/16 14:39	09/06/16 18:37	1
Benzo[b]fluoranthene	0.013	U *	0.053	0.013	ug/L		08/29/16 14:39	09/06/16 18:37	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/06/16 18:37	1
Dibenz(a,h)anthracene	0.023	U *	0.053	0.023	ug/L		08/29/16 14:39	09/06/16 18:37	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/06/16 18:37	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/29/16 14:39	09/06/16 18:37	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/29/16 14:39	09/06/16 18:37	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.44	U	11	0.44	ug/L		08/29/16 14:39	09/05/16 14:42	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 14:42	1
2-Methylphenol	1.4	U	11	1.4	ug/L		08/29/16 14:39	09/05/16 14:42	1
4-Methylphenol	0.93	U	11	0.93	ug/L		08/29/16 14:39	09/05/16 14:42	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/29/16 14:39	09/05/16 14:42	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		08/29/16 14:39	09/05/16 14:42	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 14:42	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/29/16 14:39	09/05/16 14:42	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/29/16 14:39	09/05/16 14:42	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/29/16 14:39	09/05/16 14:42	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 14:42	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/29/16 14:39	09/05/16 14:42	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 14:42	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/29/16 14:39	09/05/16 14:42	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		08/29/16 14:39	09/05/16 14:42	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/29/16 14:39	09/05/16 14:42	1
Isophorone	0.71	U	11	0.71	ug/L		08/29/16 14:39	09/05/16 14:42	1
Naphthalene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 14:42	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		08/29/16 14:39	09/05/16 14:42	1
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/29/16 14:39	09/05/16 14:42	1
2-Methylnaphthalene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 14:42	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 14:42	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 14:42	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 14:42	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 14:42	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 14:42	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		08/29/16 14:39	09/05/16 14:42	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 14:42	1
Acenaphthene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 14:42	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 14:42	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 14:42	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 14:42	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 14:42	1
Fluorene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 14:42	1

Client Sample ID: RW-13(150-170)-082616
Date Collected: 08/26/16 08:25
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/29/16 14:39	09/05/16 14:42	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 14:42	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 14:42	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 14:42	1
Anthracene	0.61	U	11	0.61	ug/L		08/29/16 14:39	09/05/16 14:42	1
Carbazole	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 14:42	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 14:42	1
Fluoranthene	0.77	U	11	0.77	ug/L		08/29/16 14:39	09/05/16 14:42	1
Pyrene	0.88	U	11	0.88	ug/L		08/29/16 14:39	09/05/16 14:42	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/29/16 14:39	09/05/16 14:42	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/29/16 14:39	09/05/16 14:42	1
Bis(2-ethylhexyl) phthalate	0.77	U	2.1	0.77	ug/L		08/29/16 14:39	09/05/16 14:42	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 14:42	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/29/16 14:39	09/05/16 14:42	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		08/29/16 14:39	09/05/16 14:42	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 14:42	1
Acetophenone	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 14:42	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/29/16 14:39	09/05/16 14:42	1
Caprolactam	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 14:42	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/29/16 14:39	09/05/16 14:42	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/29/16 14:39	09/05/16 14:42	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/29/16 14:39	09/05/16 14:42	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 14:42	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 14:42	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*77*		*30 - 130*	*08/29/16 14:39*	*09/05/16 14:42*	*1*
Phenol-d5 (Surr)	*24*		*15 - 110*	*08/29/16 14:39*	*09/05/16 14:42*	*1*
Terphenyl-d14 (Surr)	*84*		*30 - 130*	*08/29/16 14:39*	*09/05/16 14:42*	*1*
2,4,6-Tribromophenol (Surr)	*73*		*15 - 110*	*08/29/16 14:39*	*09/05/16 14:42*	*1*
2-Fluorophenol (Surr)	*40*		*15 - 110*	*08/29/16 14:39*	*09/05/16 14:42*	*1*
2-Fluorobiphenyl	*72*		*30 - 130*	*08/29/16 14:39*	*09/05/16 14:42*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	09/02/16 04:55	1
PCB-1016	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	09/02/16 04:55	1
PCB-1221	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	09/02/16 04:55	1
PCB-1232	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	09/02/16 04:55	1
PCB-1242	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	09/02/16 04:55	1
PCB-1248	0.10	U	0.41	0.10	ug/L		08/30/16 08:03	09/02/16 04:55	1
PCB-1254	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	09/02/16 04:55	1
PCB-1260	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	09/02/16 04:55	1
PCB-1262	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	09/02/16 04:55	1
PCB-1268	0.086	U	0.41	0.086	ug/L		08/30/16 08:03	09/02/16 04:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*125*		*30 - 150*	*08/30/16 08:03*	*09/02/16 04:55*	*1*
Tetrachloro-m-xylene	*113*		*30 - 150*	*08/30/16 08:03*	*09/02/16 04:55*	*1*

Client Sample ID: RW-13(150-170)-082616
Date Collected: 08/26/16 08:25
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-8
Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*104*		*30 - 150*	*08/30/16 08:03*	*09/02/16 04:55*	*1*
DCB Decachlorobiphenyl	*84*		*30 - 150*	*08/30/16 08:03*	*09/02/16 04:55*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**210**		6.00	1.05	mg/L			09/09/16 06:09	10

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**195**	**D**	12.0	3.00	mg/L			09/11/16 04:59	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:46	2
Arsenic	**1.6**	**J**	2.0	0.64	ug/L		09/03/16 19:37	09/08/16 07:46	2
Barium	**48.2**		4.0	1.2	ug/L		09/03/16 19:37	09/08/16 07:46	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/03/16 19:37	09/08/16 07:46	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/03/16 19:37	09/08/16 07:46	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:46	2
Chromium	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:46	2
Copper	1.4	U	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 07:46	2
Manganese	**104**		8.0	2.5	ug/L		09/03/16 19:37	09/08/16 07:46	2
Nickel	**5.4**		4.0	1.4	ug/L		09/03/16 19:37	09/08/16 07:46	2
Lead	**0.54**	**J**	1.2	0.38	ug/L		09/03/16 19:37	09/08/16 07:46	2
Antimony	0.62	U	2.0	0.62	ug/L		09/03/16 19:37	09/08/16 07:46	2
Selenium	0.73	U	10.0	0.73	ug/L		09/03/16 19:37	09/08/16 07:46	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/03/16 19:37	09/08/16 07:46	2
Zinc	**8.5**	**J**	16.0	7.0	ug/L		09/03/16 19:37	09/08/16 07:46	2
Aluminum	**89.4**		40.0	18.2	ug/L		09/03/16 19:37	09/08/16 07:46	2
Sodium	**18200**		200	69.0	ug/L		09/03/16 19:37	09/08/16 07:46	2
Magnesium	**5860**		200	63.6	ug/L		09/03/16 19:37	09/08/16 07:46	2
Potassium	**2260**		200	91.4	ug/L		09/03/16 19:37	09/09/16 01:16	2
Calcium	**34900**		200	60.5	ug/L		09/03/16 19:37	09/08/16 07:46	2
Iron	**365**		120	42.4	ug/L		09/03/16 19:37	09/08/16 07:46	2
Thallium	0.26	U	0.80	0.26	ug/L		09/03/16 19:37	09/08/16 07:46	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:18	2
Arsenic	**1.4**	**J**	2.0	0.64	ug/L		09/07/16 11:28	09/07/16 16:18	2
Barium	**28.9**		4.0	1.2	ug/L		09/07/16 11:28	09/07/16 16:18	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 11:28	09/07/16 16:18	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 11:28	09/07/16 16:18	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:18	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:18	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 16:18	2
Manganese	**110**		8.0	2.5	ug/L		09/07/16 11:28	09/07/16 16:18	2
Nickel	**5.6**		4.0	1.4	ug/L		09/07/16 11:28	09/07/16 16:18	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 11:28	09/07/16 16:18	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 11:28	09/07/16 16:18	2

Client Sample ID: RW-13(150-170)-082616

Lab Sample ID: 460-119270-8

Date Collected: 08/26/16 08:25

Matrix: Water

Date Received: 08/26/16 17:40

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.73	U	10.0	0.73	ug/L		09/07/16 11:28	09/07/16 16:18	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 11:28	09/07/16 16:18	2
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 11:28	09/07/16 16:18	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/07/16 11:28	09/07/16 16:18	2
Sodium	**18000**		200	69.0	ug/L		09/07/16 11:28	09/07/16 16:18	2
Magnesium	**7020**		200	63.6	ug/L		09/07/16 11:28	09/07/16 16:18	2
Potassium	**2070**		200	91.4	ug/L		09/07/16 11:28	09/09/16 13:57	2
Calcium	**34800**		200	60.5	ug/L		09/07/16 11:28	09/07/16 16:18	2
Iron	42.4	U	120	42.4	ug/L		09/07/16 11:28	09/07/16 16:18	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 11:28	09/07/16 16:18	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:15	09/01/16 13:59	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:41	09/07/16 15:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 11:08	09/07/16 14:37	1
Bicarbonate Alkalinity as CaCO3	**127**		5.0	5.0	mg/L			09/08/16 15:18	1
Alkalinity	**127**		5.0	5.0	mg/L			09/08/16 15:18	1

Client Sample ID: Dup-05-082616

Lab Sample ID: 460-119270-9

Date Collected: 08/26/16 12:00

Matrix: Water

Date Received: 08/26/16 17:40

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 08:09	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 08:09	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 08:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*		*08/31/16 08:09*	*1*
4-Bromofluorobenzene	*88*		*70 - 130*		*08/31/16 08:09*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/01/16 07:07	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/01/16 07:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/01/16 07:07	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/01/16 07:07	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/01/16 07:07	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/01/16 07:07	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/01/16 07:07	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/01/16 07:07	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/01/16 07:07	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/01/16 07:07	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: Dup-05-082616
Date Collected: 08/26/16 12:00
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/01/16 07:07	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 07:07	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 07:07	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/01/16 07:07	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/01/16 07:07	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/01/16 07:07	1
Acetone	**20**		5.0	1.1	ug/L			09/01/16 07:07	1
Benzene	0.090	U	1.0	0.090	ug/L			09/01/16 07:07	1
Bromoform	0.18	U *	1.0	0.18	ug/L			09/01/16 07:07	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/01/16 07:07	1
Carbon disulfide	**0.74**	**J**	1.0	0.22	ug/L			09/01/16 07:07	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/01/16 07:07	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/01/16 07:07	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/01/16 07:07	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/01/16 07:07	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/01/16 07:07	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/01/16 07:07	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/01/16 07:07	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/01/16 07:07	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/01/16 07:07	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/01/16 07:07	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/01/16 07:07	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/01/16 07:07	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/01/16 07:07	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/01/16 07:07	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/01/16 07:07	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/01/16 07:07	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/01/16 07:07	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/01/16 07:07	1
Styrene	0.17	U	1.0	0.17	ug/L			09/01/16 07:07	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/01/16 07:07	1
Toluene	0.25	U	1.0	0.25	ug/L			09/01/16 07:07	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/01/16 07:07	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/01/16 07:07	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/01/16 07:07	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/01/16 07:07	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/01/16 07:07	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/01/16 07:07	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/01/16 07:07*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*09/01/16 07:07*	*1*
4-Bromofluorobenzene	*83*		*70 - 130*		*09/01/16 07:07*	*1*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*09/01/16 07:07*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*09/01/16 07:07*	*1*

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: Dup-05-082616
Date Collected: 08/26/16 12:00
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-9
Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/29/16 14:39	09/06/16 19:06	1
Benzo[a]pyrene	0.028	U *	0.053	0.028	ug/L		08/29/16 14:39	09/06/16 19:06	1
Benzo[b]fluoranthene	0.013	U *	0.053	0.013	ug/L		08/29/16 14:39	09/06/16 19:06	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/06/16 19:06	1
Dibenz(a,h)anthracene	0.023	U *	0.053	0.023	ug/L		08/29/16 14:39	09/06/16 19:06	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/06/16 19:06	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/29/16 14:39	09/06/16 19:06	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/29/16 14:39	09/06/16 19:06	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.44	U	11	0.44	ug/L		08/29/16 14:39	09/05/16 15:02	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 15:02	1
2-Methylphenol	1.4	U	11	1.4	ug/L		08/29/16 14:39	09/05/16 15:02	1
4-Methylphenol	0.93	U	11	0.93	ug/L		08/29/16 14:39	09/05/16 15:02	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/29/16 14:39	09/05/16 15:02	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		08/29/16 14:39	09/05/16 15:02	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 15:02	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/29/16 14:39	09/05/16 15:02	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/29/16 14:39	09/05/16 15:02	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/29/16 14:39	09/05/16 15:02	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 15:02	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/29/16 14:39	09/05/16 15:02	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 15:02	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/29/16 14:39	09/05/16 15:02	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		08/29/16 14:39	09/05/16 15:02	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/29/16 14:39	09/05/16 15:02	1
Isophorone	0.71	U	11	0.71	ug/L		08/29/16 14:39	09/05/16 15:02	1
Naphthalene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 15:02	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		08/29/16 14:39	09/05/16 15:02	1
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/29/16 14:39	09/05/16 15:02	1
2-Methylnaphthalene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 15:02	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 15:02	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 15:02	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 15:02	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 15:02	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 15:02	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		08/29/16 14:39	09/05/16 15:02	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 15:02	1
Acenaphthene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 15:02	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 15:02	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 15:02	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 15:02	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 15:02	1
Fluorene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 15:02	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/29/16 14:39	09/05/16 15:02	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 15:02	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 15:02	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 15:02	1
Anthracene	0.61	U	11	0.61	ug/L		08/29/16 14:39	09/05/16 15:02	1

Client Sample ID: Dup-05-082616
Date Collected: 08/26/16 12:00
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbazole	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 15:02	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 15:02	1
Fluoranthene	0.77	U	11	0.77	ug/L		08/29/16 14:39	09/05/16 15:02	1
Pyrene	0.88	U	11	0.88	ug/L		08/29/16 14:39	09/05/16 15:02	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/29/16 14:39	09/05/16 15:02	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/29/16 14:39	09/05/16 15:02	1
Bis(2-ethylhexyl) phthalate	0.77	U	2.1	0.77	ug/L		08/29/16 14:39	09/05/16 15:02	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 15:02	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/29/16 14:39	09/05/16 15:02	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		08/29/16 14:39	09/05/16 15:02	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 15:02	1
Acetophenone	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 15:02	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/29/16 14:39	09/05/16 15:02	1
Caprolactam	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 15:02	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/29/16 14:39	09/05/16 15:02	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/29/16 14:39	09/05/16 15:02	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/29/16 14:39	09/05/16 15:02	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 15:02	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 15:02	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*93*		*30 - 130*	*08/29/16 14:39*	*09/05/16 15:02*	*1*
Phenol-d5 (Surr)	*33*		*15 - 110*	*08/29/16 14:39*	*09/05/16 15:02*	*1*
Terphenyl-d14 (Surr)	*95*		*30 - 130*	*08/29/16 14:39*	*09/05/16 15:02*	*1*
2,4,6-Tribromophenol (Surr)	*90*		*15 - 110*	*08/29/16 14:39*	*09/05/16 15:02*	*1*
2-Fluorophenol (Surr)	*47*		*15 - 110*	*08/29/16 14:39*	*09/05/16 15:02*	*1*
2-Fluorobiphenyl	*90*		*30 - 130*	*08/29/16 14:39*	*09/05/16 15:02*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 11:51	1
PCB-1016	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 11:51	1
PCB-1221	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 11:51	1
PCB-1232	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 11:51	1
PCB-1242	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 11:51	1
PCB-1248	0.10	U	0.42	0.10	ug/L		08/30/16 08:03	08/31/16 11:51	1
PCB-1254	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 11:51	1
PCB-1260	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 11:51	1
PCB-1262	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 11:51	1
PCB-1268	0.088	U	0.42	0.088	ug/L		08/30/16 08:03	08/31/16 11:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*123*		*30 - 150*	*08/30/16 08:03*	*08/31/16 11:51*	*1*
Tetrachloro-m-xylene	*135*		*30 - 150*	*08/30/16 08:03*	*08/31/16 11:51*	*1*
DCB Decachlorobiphenyl	*109*		*30 - 150*	*08/30/16 08:03*	*08/31/16 11:51*	*1*
DCB Decachlorobiphenyl	*116*		*30 - 150*	*08/30/16 08:03*	*08/31/16 11:51*	*1*

Client Sample ID: Dup-05-082616

Date Collected: 08/26/16 12:00
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-9

Matrix: Water

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**61.6**	**D**	12.0	3.00	mg/L			09/11/16 05:17	100
Sulfate	**1200**	**D**	60.0	10.5	mg/L			09/11/16 05:17	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:52	2
Arsenic	**4.3**		2.0	0.64	ug/L		09/03/16 19:37	09/08/16 07:52	2
Barium	**9.3**		4.0	1.2	ug/L		09/03/16 19:37	09/08/16 07:52	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/03/16 19:37	09/08/16 07:52	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/03/16 19:37	09/08/16 07:52	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:52	2
Chromium	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:52	2
Copper	1.4	U	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 07:52	2
Manganese	2.5	U	8.0	2.5	ug/L		09/03/16 19:37	09/08/16 07:52	2
Nickel	**2.2**	**J**	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 07:52	2
Lead	0.38	U	1.2	0.38	ug/L		09/03/16 19:37	09/08/16 07:52	2
Antimony	0.62	U	2.0	0.62	ug/L		09/03/16 19:37	09/08/16 07:52	2
Selenium	0.73	U	10.0	0.73	ug/L		09/03/16 19:37	09/08/16 07:52	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/03/16 19:37	09/08/16 07:52	2
Zinc	7.0	U	16.0	7.0	ug/L		09/03/16 19:37	09/08/16 07:52	2
Aluminum	**114**		40.0	18.2	ug/L		09/03/16 19:37	09/08/16 07:52	2
Sodium	**30700**		200	69.0	ug/L		09/03/16 19:37	09/08/16 07:52	2
Magnesium	**738**		200	63.6	ug/L		09/03/16 19:37	09/08/16 07:52	2
Potassium	**9680**		200	91.4	ug/L		09/03/16 19:37	09/09/16 01:22	2
Calcium	**46600**		200	60.5	ug/L		09/03/16 19:37	09/08/16 07:52	2
Iron	42.4	U	120	42.4	ug/L		09/03/16 19:37	09/08/16 07:52	2
Thallium	0.26	U	0.80	0.26	ug/L		09/03/16 19:37	09/08/16 07:52	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:24	2
Arsenic	**5.1**		2.0	0.64	ug/L		09/07/16 11:28	09/07/16 16:24	2
Barium	**10.3**		4.0	1.2	ug/L		09/07/16 11:28	09/07/16 16:24	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 11:28	09/07/16 16:24	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 11:28	09/07/16 16:24	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:24	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:24	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 16:24	2
Manganese	2.5	U	8.0	2.5	ug/L		09/07/16 11:28	09/07/16 16:24	2
Nickel	**1.7**	**J**	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 16:24	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 11:28	09/07/16 16:24	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 11:28	09/07/16 16:24	2
Selenium	**0.90**	**J**	10.0	0.73	ug/L		09/07/16 11:28	09/07/16 16:24	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 11:28	09/07/16 16:24	2
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 11:28	09/07/16 16:24	2
Aluminum	**113**		40.0	18.2	ug/L		09/07/16 11:28	09/07/16 16:24	2
Sodium	**30600**		200	69.0	ug/L		09/07/16 11:28	09/07/16 16:24	2
Magnesium	**999**		200	63.6	ug/L		09/07/16 11:28	09/07/16 16:24	2
Potassium	**9720**		200	91.4	ug/L		09/07/16 11:28	09/09/16 14:02	2
Calcium	**49600**		200	60.5	ug/L		09/07/16 11:28	09/07/16 16:24	2

Client Sample ID: Dup-05-082616

Lab Sample ID: 460-119270-9

Date Collected: 08/26/16 12:00

Matrix: Water

Date Received: 08/26/16 17:40

Method: 6020A - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	42.4	U	120	42.4	ug/L		09/07/16 11:28	09/07/16 16:24	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 11:28	09/07/16 16:24	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:15	09/01/16 14:01	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:41	09/07/16 15:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 11:08	09/07/16 14:38	1
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/08/16 15:18	1
Alkalinity	**78.4**		5.0	5.0	mg/L			09/08/16 15:18	1

Client Sample ID: RW-10(185-195)-082616

Lab Sample ID: 460-119270-10

Date Collected: 08/26/16 13:05

Matrix: Water

Date Received: 08/26/16 17:40

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 08:34	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 08:34	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 08:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*70 - 130*		*08/31/16 08:34*	*1*
4-Bromofluorobenzene	*89*		*70 - 130*		*08/31/16 08:34*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/01/16 07:33	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/01/16 07:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/01/16 07:33	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/01/16 07:33	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/01/16 07:33	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/01/16 07:33	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/01/16 07:33	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/01/16 07:33	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/01/16 07:33	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/01/16 07:33	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/01/16 07:33	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 07:33	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 07:33	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/01/16 07:33	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/01/16 07:33	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/01/16 07:33	1
Acetone	**20**		5.0	1.1	ug/L			09/01/16 07:33	1
Benzene	0.090	U	1.0	0.090	ug/L			09/01/16 07:33	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-10(185-195)-082616
Date Collected: 08/26/16 13:05
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-10
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	0.18	U *	1.0	0.18	ug/L			09/01/16 07:33	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/01/16 07:33	1
Carbon disulfide	**0.62**	**J**	1.0	0.22	ug/L			09/01/16 07:33	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/01/16 07:33	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/01/16 07:33	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/01/16 07:33	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/01/16 07:33	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/01/16 07:33	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/01/16 07:33	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/01/16 07:33	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/01/16 07:33	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/01/16 07:33	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/01/16 07:33	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/01/16 07:33	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/01/16 07:33	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/01/16 07:33	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/01/16 07:33	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/01/16 07:33	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/01/16 07:33	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/01/16 07:33	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/01/16 07:33	1
Styrene	0.17	U	1.0	0.17	ug/L			09/01/16 07:33	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/01/16 07:33	1
Toluene	0.25	U	1.0	0.25	ug/L			09/01/16 07:33	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/01/16 07:33	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/01/16 07:33	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/01/16 07:33	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/01/16 07:33	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/01/16 07:33	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/01/16 07:33	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/01/16 07:33*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*09/01/16 07:33*	*1*
4-Bromofluorobenzene	*82*		*70 - 130*		*09/01/16 07:33*	*1*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*09/01/16 07:33*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*09/01/16 07:33*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/29/16 14:39	09/06/16 19:36	1
Benzo[a]pyrene	0.028	U *	0.053	0.028	ug/L		08/29/16 14:39	09/06/16 19:36	1
Benzo[b]fluoranthene	0.013	U *	0.053	0.013	ug/L		08/29/16 14:39	09/06/16 19:36	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/06/16 19:36	1
Dibenz(a,h)anthracene	0.023	U *	0.053	0.023	ug/L		08/29/16 14:39	09/06/16 19:36	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/06/16 19:36	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/29/16 14:39	09/06/16 19:36	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/29/16 14:39	09/06/16 19:36	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-10(185-195)-082616
Date Collected: 08/26/16 13:05
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-10
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.44	U	11	0.44	ug/L		08/29/16 14:39	09/05/16 15:21	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 15:21	1
2-Methylphenol	1.4	U	11	1.4	ug/L		08/29/16 14:39	09/05/16 15:21	1
4-Methylphenol	0.93	U	11	0.93	ug/L		08/29/16 14:39	09/05/16 15:21	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/29/16 14:39	09/05/16 15:21	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		08/29/16 14:39	09/05/16 15:21	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 15:21	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/29/16 14:39	09/05/16 15:21	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/29/16 14:39	09/05/16 15:21	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/29/16 14:39	09/05/16 15:21	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 15:21	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/29/16 14:39	09/05/16 15:21	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 15:21	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/29/16 14:39	09/05/16 15:21	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		08/29/16 14:39	09/05/16 15:21	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/29/16 14:39	09/05/16 15:21	1
Isophorone	0.71	U	11	0.71	ug/L		08/29/16 14:39	09/05/16 15:21	1
Naphthalene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 15:21	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		08/29/16 14:39	09/05/16 15:21	1
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/29/16 14:39	09/05/16 15:21	1
2-Methylnaphthalene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 15:21	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 15:21	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 15:21	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 15:21	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 15:21	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 15:21	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		08/29/16 14:39	09/05/16 15:21	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 15:21	1
Acenaphthene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 15:21	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 15:21	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 15:21	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 15:21	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 15:21	1
Fluorene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 15:21	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/29/16 14:39	09/05/16 15:21	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 15:21	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 15:21	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 15:21	1
Anthracene	0.61	U	11	0.61	ug/L		08/29/16 14:39	09/05/16 15:21	1
Carbazole	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 15:21	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 15:21	1
Fluoranthene	0.77	U	11	0.77	ug/L		08/29/16 14:39	09/05/16 15:21	1
Pyrene	0.88	U	11	0.88	ug/L		08/29/16 14:39	09/05/16 15:21	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/29/16 14:39	09/05/16 15:21	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/29/16 14:39	09/05/16 15:21	1
Bis(2-ethylhexyl) phthalate	**1.3**	**J**	2.1	0.77	ug/L		08/29/16 14:39	09/05/16 15:21	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 15:21	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/29/16 14:39	09/05/16 15:21	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		08/29/16 14:39	09/05/16 15:21	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-10(185-195)-082616
Date Collected: 08/26/16 13:05
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-10
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 15:21	1
Acetophenone	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 15:21	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/29/16 14:39	09/05/16 15:21	1
Caprolactam	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 15:21	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/29/16 14:39	09/05/16 15:21	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/29/16 14:39	09/05/16 15:21	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/29/16 14:39	09/05/16 15:21	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 15:21	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 15:21	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 15:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*94*		*30 - 130*	*08/29/16 14:39*	*09/05/16 15:21*	*1*
Phenol-d5 (Surr)	*26*		*15 - 110*	*08/29/16 14:39*	*09/05/16 15:21*	*1*
Terphenyl-d14 (Surr)	*89*		*30 - 130*	*08/29/16 14:39*	*09/05/16 15:21*	*1*
2,4,6-Tribromophenol (Surr)	*98*		*15 - 110*	*08/29/16 14:39*	*09/05/16 15:21*	*1*
2-Fluorophenol (Surr)	*47*		*15 - 110*	*08/29/16 14:39*	*09/05/16 15:21*	*1*
2-Fluorobiphenyl	*83*		*30 - 130*	*08/29/16 14:39*	*09/05/16 15:21*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.10	U	0.43	0.10	ug/L		08/30/16 08:03	08/31/16 11:33	1
PCB-1016	0.10	U	0.43	0.10	ug/L		08/30/16 08:03	08/31/16 11:33	1
PCB-1221	0.10	U	0.43	0.10	ug/L		08/30/16 08:03	08/31/16 11:33	1
PCB-1232	0.10	U	0.43	0.10	ug/L		08/30/16 08:03	08/31/16 11:33	1
PCB-1242	0.10	U	0.43	0.10	ug/L		08/30/16 08:03	08/31/16 11:33	1
PCB-1248	0.10	U	0.43	0.10	ug/L		08/30/16 08:03	08/31/16 11:33	1
PCB-1254	0.089	U	0.43	0.089	ug/L		08/30/16 08:03	08/31/16 11:33	1
PCB-1260	0.089	U	0.43	0.089	ug/L		08/30/16 08:03	08/31/16 11:33	1
PCB-1262	0.089	U	0.43	0.089	ug/L		08/30/16 08:03	08/31/16 11:33	1
PCB-1268	0.089	U	0.43	0.089	ug/L		08/30/16 08:03	08/31/16 11:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*144*		*30 - 150*	*08/30/16 08:03*	*08/31/16 11:33*	*1*
Tetrachloro-m-xylene	*126*		*30 - 150*	*08/30/16 08:03*	*08/31/16 11:33*	*1*
DCB Decachlorobiphenyl	*121*		*30 - 150*	*08/30/16 08:03*	*08/31/16 11:33*	*1*
DCB Decachlorobiphenyl	*109*		*30 - 150*	*08/30/16 08:03*	*08/31/16 11:33*	*1*

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**57.5**	**D**	12.0	3.00	mg/L			09/11/16 05:36	100
Sulfate	**1200**	**D**	60.0	10.5	mg/L			09/11/16 05:36	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:58	2
Arsenic	**4.6**		2.0	0.64	ug/L		09/03/16 19:37	09/08/16 07:58	2
Barium	**9.9**		4.0	1.2	ug/L		09/03/16 19:37	09/08/16 07:58	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/03/16 19:37	09/08/16 07:58	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/03/16 19:37	09/08/16 07:58	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:58	2

Client Sample ID: RW-10(185-195)-082616
Date Collected: 08/26/16 13:05
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-10
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 07:58	2
Copper	1.4	U	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 07:58	2
Manganese	2.5	U	8.0	2.5	ug/L		09/03/16 19:37	09/08/16 07:58	2
Nickel	**2.2**	**J**	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 07:58	2
Lead	0.38	U	1.2	0.38	ug/L		09/03/16 19:37	09/08/16 07:58	2
Antimony	0.62	U	2.0	0.62	ug/L		09/03/16 19:37	09/08/16 07:58	2
Selenium	0.73	U	10.0	0.73	ug/L		09/03/16 19:37	09/08/16 07:58	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/03/16 19:37	09/08/16 07:58	2
Zinc	7.0	U	16.0	7.0	ug/L		09/03/16 19:37	09/08/16 07:58	2
Aluminum	**119**		40.0	18.2	ug/L		09/03/16 19:37	09/08/16 07:58	2
Sodium	**31200**		200	69.0	ug/L		09/03/16 19:37	09/08/16 07:58	2
Magnesium	**747**		200	63.6	ug/L		09/03/16 19:37	09/08/16 07:58	2
Potassium	**10300**		200	91.4	ug/L		09/03/16 19:37	09/09/16 01:34	2
Calcium	**47200**		200	60.5	ug/L		09/03/16 19:37	09/08/16 07:58	2
Iron	42.4	U	120	42.4	ug/L		09/03/16 19:37	09/08/16 07:58	2
Thallium	0.26	U	0.80	0.26	ug/L		09/03/16 19:37	09/08/16 07:58	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:29	2
Arsenic	**4.0**		2.0	0.64	ug/L		09/07/16 11:28	09/07/16 16:29	2
Barium	**10**		4.0	1.2	ug/L		09/07/16 11:28	09/07/16 16:29	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 11:28	09/07/16 16:29	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 11:28	09/07/16 16:29	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:29	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:29	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 16:29	2
Manganese	2.5	U	8.0	2.5	ug/L		09/07/16 11:28	09/07/16 16:29	2
Nickel	**1.4**	**J**	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 16:29	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 11:28	09/07/16 16:29	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 11:28	09/07/16 16:29	2
Selenium	0.73	U	10.0	0.73	ug/L		09/07/16 11:28	09/07/16 16:29	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 11:28	09/07/16 16:29	2
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 11:28	09/07/16 16:29	2
Aluminum	**96.2**		40.0	18.2	ug/L		09/07/16 11:28	09/07/16 16:29	2
Sodium	**25300**		200	69.0	ug/L		09/07/16 11:28	09/07/16 16:29	2
Magnesium	**1330**		200	63.6	ug/L		09/07/16 11:28	09/07/16 16:29	2
Potassium	**8740**		200	91.4	ug/L		09/07/16 11:28	09/09/16 14:08	2
Calcium	**51400**		200	60.5	ug/L		09/07/16 11:28	09/07/16 16:29	2
Iron	42.4	U	120	42.4	ug/L		09/07/16 11:28	09/07/16 16:29	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 11:28	09/07/16 16:29	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/06/16 11:43	09/06/16 14:08	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:41	09/07/16 15:19	1

Client Sample ID: RW-10(185-195)-082616

Lab Sample ID: 460-119270-10

Date Collected: 08/26/16 13:05

Matrix: Water

Date Received: 08/26/16 17:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 11:08	09/07/16 14:39	1
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/08/16 15:18	1
Alkalinity	**74.4**		5.0	5.0	mg/L			09/08/16 15:18	1

Client Sample ID: RW-10A(75-85)-082616

Lab Sample ID: 460-119270-11

Date Collected: 08/26/16 14:15

Matrix: Water

Date Received: 08/26/16 17:40

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 08:59	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 08:59	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 08:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 130*		*08/31/16 08:59*	*1*
4-Bromofluorobenzene	*84*		*70 - 130*		*08/31/16 08:59*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/01/16 07:59	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/01/16 07:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/01/16 07:59	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/01/16 07:59	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/01/16 07:59	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/01/16 07:59	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/01/16 07:59	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/01/16 07:59	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/01/16 07:59	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/01/16 07:59	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/01/16 07:59	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 07:59	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 07:59	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/01/16 07:59	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/01/16 07:59	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/01/16 07:59	1
Acetone	**7.0**		5.0	1.1	ug/L			09/01/16 07:59	1
Benzene	0.090	U	1.0	0.090	ug/L			09/01/16 07:59	1
Bromoform	0.18	U *	1.0	0.18	ug/L			09/01/16 07:59	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/01/16 07:59	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			09/01/16 07:59	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/01/16 07:59	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/01/16 07:59	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/01/16 07:59	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/01/16 07:59	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/01/16 07:59	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/01/16 07:59	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/01/16 07:59	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/01/16 07:59	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/01/16 07:59	1

Client Sample ID: RW-10A(75-85)-082616
Date Collected: 08/26/16 14:15
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-11
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/01/16 07:59	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/01/16 07:59	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/01/16 07:59	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/01/16 07:59	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/01/16 07:59	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/01/16 07:59	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/01/16 07:59	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/01/16 07:59	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/01/16 07:59	1
Styrene	0.17	U	1.0	0.17	ug/L			09/01/16 07:59	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/01/16 07:59	1
Toluene	0.25	U	1.0	0.25	ug/L			09/01/16 07:59	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/01/16 07:59	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/01/16 07:59	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/01/16 07:59	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/01/16 07:59	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/01/16 07:59	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/01/16 07:59	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/01/16 07:59*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*09/01/16 07:59*	*1*
4-Bromofluorobenzene	*82*		*70 - 130*		*09/01/16 07:59*	*1*
Dibromofluoromethane (Surr)	*92*		*70 - 130*		*09/01/16 07:59*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*09/01/16 07:59*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		08/29/16 14:39	09/06/16 20:05	1
Benzo[a]pyrene	0.028	U *	0.053	0.028	ug/L		08/29/16 14:39	09/06/16 20:05	1
Benzo[b]fluoranthene	0.013	U *	0.053	0.013	ug/L		08/29/16 14:39	09/06/16 20:05	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/06/16 20:05	1
Dibenz(a,h)anthracene	0.023	U *	0.053	0.023	ug/L		08/29/16 14:39	09/06/16 20:05	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		08/29/16 14:39	09/06/16 20:05	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		08/29/16 14:39	09/06/16 20:05	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		08/29/16 14:39	09/06/16 20:05	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.44	U	11	0.44	ug/L		08/29/16 14:39	09/05/16 15:41	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 15:41	1
2-Methylphenol	1.4	U	11	1.4	ug/L		08/29/16 14:39	09/05/16 15:41	1
4-Methylphenol	0.93	U	11	0.93	ug/L		08/29/16 14:39	09/05/16 15:41	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		08/29/16 14:39	09/05/16 15:41	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		08/29/16 14:39	09/05/16 15:41	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 15:41	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		08/29/16 14:39	09/05/16 15:41	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		08/29/16 14:39	09/05/16 15:41	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-10A(75-85)-082616
Date Collected: 08/26/16 14:15
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		08/29/16 14:39	09/05/16 15:41	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		08/29/16 14:39	09/05/16 15:41	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		08/29/16 14:39	09/05/16 15:41	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		08/29/16 14:39	09/05/16 15:41	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		08/29/16 14:39	09/05/16 15:41	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		08/29/16 14:39	09/05/16 15:41	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		08/29/16 14:39	09/05/16 15:41	1
Isophorone	0.71	U	11	0.71	ug/L		08/29/16 14:39	09/05/16 15:41	1
Naphthalene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 15:41	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		08/29/16 14:39	09/05/16 15:41	1
Hexachlorobutadiene	0.81	U	1.1	0.81	ug/L		08/29/16 14:39	09/05/16 15:41	1
2-Methylnaphthalene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 15:41	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 15:41	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		08/29/16 14:39	09/05/16 15:41	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 15:41	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 15:41	1
Acenaphthylene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 15:41	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		08/29/16 14:39	09/05/16 15:41	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 15:41	1
Acenaphthene	0.94	U	11	0.94	ug/L		08/29/16 14:39	09/05/16 15:41	1
Dibenzofuran	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 15:41	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		08/29/16 14:39	09/05/16 15:41	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 15:41	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		08/29/16 14:39	09/05/16 15:41	1
Fluorene	0.85	U	11	0.85	ug/L		08/29/16 14:39	09/05/16 15:41	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		08/29/16 14:39	09/05/16 15:41	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		08/29/16 14:39	09/05/16 15:41	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 15:41	1
Phenanthrene	0.69	U	11	0.69	ug/L		08/29/16 14:39	09/05/16 15:41	1
Anthracene	0.61	U	11	0.61	ug/L		08/29/16 14:39	09/05/16 15:41	1
Carbazole	0.90	U	11	0.90	ug/L		08/29/16 14:39	09/05/16 15:41	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		08/29/16 14:39	09/05/16 15:41	1
Fluoranthene	0.77	U	11	0.77	ug/L		08/29/16 14:39	09/05/16 15:41	1
Pyrene	0.88	U	11	0.88	ug/L		08/29/16 14:39	09/05/16 15:41	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		08/29/16 14:39	09/05/16 15:41	1
Chrysene	0.71	U	2.1	0.71	ug/L		08/29/16 14:39	09/05/16 15:41	1
Bis(2-ethylhexyl) phthalate	**1.0**	**J**	2.1	0.77	ug/L		08/29/16 14:39	09/05/16 15:41	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 15:41	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		08/29/16 14:39	09/05/16 15:41	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		08/29/16 14:39	09/05/16 15:41	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		08/29/16 14:39	09/05/16 15:41	1
Acetophenone	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 15:41	1
Benzaldehyde	0.91	U	11	0.91	ug/L		08/29/16 14:39	09/05/16 15:41	1
Caprolactam	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 15:41	1
Atrazine	0.82	U	2.1	0.82	ug/L		08/29/16 14:39	09/05/16 15:41	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		08/29/16 14:39	09/05/16 15:41	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		08/29/16 14:39	09/05/16 15:41	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 15:41	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		08/29/16 14:39	09/05/16 15:41	1

Client Sample ID: RW-10A(75-85)-082616
Date Collected: 08/26/16 14:15
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		08/29/16 14:39	09/05/16 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*90*		*30 - 130*	*08/29/16 14:39*	*09/05/16 15:41*	*1*
Phenol-d5 (Surr)	*25*		*15 - 110*	*08/29/16 14:39*	*09/05/16 15:41*	*1*
Terphenyl-d14 (Surr)	*108*		*30 - 130*	*08/29/16 14:39*	*09/05/16 15:41*	*1*
2,4,6-Tribromophenol (Surr)	*95*		*15 - 110*	*08/29/16 14:39*	*09/05/16 15:41*	*1*
2-Fluorophenol (Surr)	*45*		*15 - 110*	*08/29/16 14:39*	*09/05/16 15:41*	*1*
2-Fluorobiphenyl	*99*		*30 - 130*	*08/29/16 14:39*	*09/05/16 15:41*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 11:15	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 11:15	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 11:15	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 11:15	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 11:15	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 11:15	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 11:15	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 11:15	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 11:15	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 11:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*144*		*30 - 150*	*08/30/16 08:03*	*08/31/16 11:15*	*1*
Tetrachloro-m-xylene	*125*		*30 - 150*	*08/30/16 08:03*	*08/31/16 11:15*	*1*
DCB Decachlorobiphenyl	*124*		*30 - 150*	*08/30/16 08:03*	*08/31/16 11:15*	*1*
DCB Decachlorobiphenyl	*115*		*30 - 150*	*08/30/16 08:03*	*08/31/16 11:15*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**33.7**		1.20	0.30	mg/L			09/09/16 07:04	10

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**754**	**D**	60.0	10.5	mg/L			09/11/16 05:54	100

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/03/16 19:37	09/08/16 08:04	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/03/16 19:37	09/08/16 08:04	2
Barium	**6.7**		4.0	1.2	ug/L		09/03/16 19:37	09/08/16 08:04	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/03/16 19:37	09/08/16 08:04	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/03/16 19:37	09/08/16 08:04	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 08:04	2
Chromium	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 08:04	2
Copper	1.4	U	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 08:04	2
Manganese	**9.1**		8.0	2.5	ug/L		09/03/16 19:37	09/08/16 08:04	2
Nickel	1.4	U	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 08:04	2
Lead	0.38	U	1.2	0.38	ug/L		09/03/16 19:37	09/08/16 08:04	2
Antimony	0.62	U	2.0	0.62	ug/L		09/03/16 19:37	09/08/16 08:04	2

Client Sample ID: RW-10A(75-85)-082616

Date Collected: 08/26/16 14:15
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-11

Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.73	U	10.0	0.73	ug/L		09/03/16 19:37	09/08/16 08:04	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/03/16 19:37	09/08/16 08:04	2
Zinc	7.0	U	16.0	7.0	ug/L		09/03/16 19:37	09/08/16 08:04	2
Aluminum	**27.3**	**J**	40.0	18.2	ug/L		09/03/16 19:37	09/08/16 08:04	2
Sodium	**5170**		200	69.0	ug/L		09/03/16 19:37	09/08/16 08:04	2
Magnesium	**14200**		200	63.6	ug/L		09/03/16 19:37	09/08/16 08:04	2
Potassium	**2170**		200	91.4	ug/L		09/03/16 19:37	09/09/16 01:57	2
Calcium	**49900**		200	60.5	ug/L		09/03/16 19:37	09/08/16 08:04	2
Iron	42.4	U	120	42.4	ug/L		09/03/16 19:37	09/08/16 08:04	2
Thallium	0.26	U	0.80	0.26	ug/L		09/03/16 19:37	09/08/16 08:04	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:35	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/07/16 11:28	09/07/16 16:35	2
Barium	**6.7**		4.0	1.2	ug/L		09/07/16 11:28	09/07/16 16:35	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 11:28	09/07/16 16:35	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 11:28	09/07/16 16:35	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:35	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 16:35	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 16:35	2
Manganese	2.5	U	8.0	2.5	ug/L		09/07/16 11:28	09/07/16 16:35	2
Nickel	1.4	U	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 16:35	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 11:28	09/07/16 16:35	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 11:28	09/07/16 16:35	2
Selenium	0.73	U	10.0	0.73	ug/L		09/07/16 11:28	09/07/16 16:35	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 11:28	09/07/16 16:35	2
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 11:28	09/07/16 16:35	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/07/16 11:28	09/07/16 16:35	2
Sodium	**5290**		200	69.0	ug/L		09/07/16 11:28	09/07/16 16:35	2
Magnesium	**14900**		200	63.6	ug/L		09/07/16 11:28	09/07/16 16:35	2
Potassium	**2120**		200	91.4	ug/L		09/07/16 11:28	09/09/16 14:13	2
Calcium	**52100**		200	60.5	ug/L		09/07/16 11:28	09/07/16 16:35	2
Iron	42.4	U	120	42.4	ug/L		09/07/16 11:28	09/07/16 16:35	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 11:28	09/07/16 16:35	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/06/16 11:43	09/06/16 14:10	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:41	09/07/16 15:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 15:17	09/08/16 10:11	1
Bicarbonate Alkalinity as CaCO3	**161**		5.0	5.0	mg/L			09/08/16 15:18	1
Alkalinity	**161**		5.0	5.0	mg/L			09/08/16 15:18	1

Surrogate Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)	DBFM (70-130)	TOL (70-130)
460-119270-1	TB-08-082516	100	82	90	98
460-119270-2	RW-4A(62-72)-082516	100	83	91	99
460-119270-3	RW-13(71-91)-082516	99	82	92	97
460-119270-4	RW-12(130-140)-082516	99	82	94	97
460-119270-5	RW-8(204-214)-082516	100	84	91	99
460-119270-6	RW-8(163-173)-082516	101	83	92	98
460-119270-7	RW-13(100-120)-082616	99	84	92	103
460-119270-8	RW-13(150-170)-082616	98	83	93	100
460-119270-9	Dup-05-082616	102	83	93	98
460-119270-10	RW-10(185-195)-082616	100	82	93	98
460-119270-11	RW-10A(75-85)-082616	102	82	92	99
460-119372-B-7 MS	Matrix Spike	99	84	91	98
460-119372-B-7 MSD	Matrix Spike Duplicate	101	83	92	97
LCS 460-387955/3	Lab Control Sample	100	84	93	99
MB 460-387955/7	Method Blank	100	82	92	98

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)
460-119270-1	TB-08-082516	109	80
460-119270-2	RW-4A(62-72)-082516	106	88
460-119270-3	RW-13(71-91)-082516	108	87
460-119270-4	RW-12(130-140)-082516	114	91
460-119270-5	RW-8(204-214)-082516	102	84
460-119270-6	RW-8(163-173)-082516	108	93
460-119270-7	RW-13(100-120)-082616	105	84
460-119270-8	RW-13(150-170)-082616	110	93
460-119270-9	Dup-05-082616	109	88
460-119270-10	RW-10(185-195)-082616	112	89
460-119270-11	RW-10A(75-85)-082616	113	84
LCS 460-387733/4	Lab Control Sample	108	91
LCSD 460-387733/5	Lab Control Sample Dup	108	89
MB 460-387733/8	Method Blank	107	78

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene

Surrogate Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPH	TBP	2FP	FBP
Lab Sample ID	Client Sample ID	(30-130)	(15-110)	(30-130)	(15-110)	(15-110)	(30-130)
460-119177-J-5-A MS	Matrix Spike	89	37	87	102	48	100
460-119177-K-5-A MSD	Matrix Spike Duplicate	93	36	83	111 X	51	93
460-119270-2	RW-4A(62-72)-082516	83	22	95	84	44	81
460-119270-3	RW-13(71-91)-082516	93	21	93	94	36	83
460-119270-4	RW-12(130-140)-082516	79	26	92	105	43	81
460-119270-5	RW-8(204-214)-082516	88	28	92	106	46	91
460-119270-6	RW-8(163-173)-082516	87	21	84	81	35	77
460-119270-7	RW-13(100-120)-082616	66	32	95	105	52	87
460-119270-8	RW-13(150-170)-082616	77	24	84	73	40	72
460-119270-9	Dup-05-082616	93	33	95	90	47	90
460-119270-10	RW-10(185-195)-082616	94	26	89	98	47	83
460-119270-11	RW-10A(75-85)-082616	90	25	108	95	45	99
LCS 460-387456/2-A	Lab Control Sample	90	30	87	99	44	90
LCS 460-387456/3-A	Lab Control Sample	96	24	96	102	39	89
MB 460-387456/1-A	Method Blank	82	21	89	99	34	79

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)
460-119177-L-5-A MS	Matrix Spike	115	100	94	79
460-119177-L-5-B MSD	Matrix Spike Duplicate	99	114	84	91
460-119270-2	RW-4A(62-72)-082516	113	121	82	89
460-119270-3	RW-13(71-91)-082516	112	113	96	97
460-119270-4	RW-12(130-140)-082516	125	118	92	88
460-119270-5	RW-8(204-214)-082516	68	75	57	78
460-119270-6	RW-8(163-173)-082516	110	119	91	100
460-119270-7	RW-13(100-120)-082616	125	131	90	98
460-119270-8	RW-13(150-170)-082616	125	113	104	84
460-119270-9	Dup-05-082616	123	135	109	116
460-119270-10	RW-10(185-195)-082616	144	126	121	109
460-119270-11	RW-10A(75-85)-082616	144	125	124	115
LCS 460-387586/2-A	Lab Control Sample	131	128	100	92
LCS 460-387586/2-A - RA	Lab Control Sample	122	116	90	77
MB 460-387586/1-A	Method Blank	100	99	102	80
MB 460-387586/1-A - RA	Method Blank	101	96	79	73

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-387955/7
Matrix: Water
Analysis Batch: 387955

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/01/16 01:06	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/01/16 01:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/01/16 01:06	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/01/16 01:06	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/01/16 01:06	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/01/16 01:06	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/01/16 01:06	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/01/16 01:06	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/01/16 01:06	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/01/16 01:06	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/01/16 01:06	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 01:06	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/01/16 01:06	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/01/16 01:06	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/01/16 01:06	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/01/16 01:06	1
Acetone	1.1	U	5.0	1.1	ug/L			09/01/16 01:06	1
Benzene	0.090	U	1.0	0.090	ug/L			09/01/16 01:06	1
Bromoform	0.18	U	1.0	0.18	ug/L			09/01/16 01:06	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/01/16 01:06	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			09/01/16 01:06	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/01/16 01:06	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/01/16 01:06	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/01/16 01:06	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/01/16 01:06	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/01/16 01:06	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/01/16 01:06	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/01/16 01:06	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/01/16 01:06	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/01/16 01:06	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/01/16 01:06	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/01/16 01:06	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/01/16 01:06	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/01/16 01:06	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/01/16 01:06	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/01/16 01:06	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/01/16 01:06	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/01/16 01:06	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/01/16 01:06	1
Styrene	0.17	U	1.0	0.17	ug/L			09/01/16 01:06	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/01/16 01:06	1
Toluene	0.25	U	1.0	0.25	ug/L			09/01/16 01:06	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/01/16 01:06	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/01/16 01:06	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/01/16 01:06	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/01/16 01:06	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/01/16 01:06	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/01/16 01:06	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/01/16 01:06	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130		09/01/16 01:06	1
4-Bromofluorobenzene	82		70 - 130		09/01/16 01:06	1
Dibromofluoromethane (Surr)	92		70 - 130		09/01/16 01:06	1
Toluene-d8 (Surr)	98		70 - 130		09/01/16 01:06	1

Lab Sample ID: LCS 460-387955/3
Matrix: Water
Analysis Batch: 387955

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	19.1		ug/L		96	70 - 130
1,1,2,2-Tetrachloroethane	20.0	25.8		ug/L		129	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	22.5		ug/L		113	70 - 130
1,1,2-Trichloroethane	20.0	21.0		ug/L		105	70 - 130
1,1-Dichloroethane	20.0	22.1		ug/L		110	70 - 130
1,1-Dichloroethene	20.0	19.4		ug/L		97	70 - 130
1,2,3-Trichlorobenzene	20.0	21.3		ug/L		107	70 - 130
1,2,4-Trichlorobenzene	20.0	21.2		ug/L		106	70 - 130
1,2-Dichlorobenzene	20.0	21.5		ug/L		107	70 - 130
1,2-Dichloroethane	20.0	19.8		ug/L		99	70 - 130
1,2-Dichloropropane	20.0	23.6		ug/L		118	70 - 130
1,3-Dichlorobenzene	20.0	21.2		ug/L		106	70 - 130
1,4-Dichlorobenzene	20.0	21.7		ug/L		108	70 - 130
2-Butanone (MEK)	100	86.6		ug/L		87	40 - 160
2-Hexanone	100	91.9		ug/L		92	40 - 160
4-Methyl-2-pentanone (MIBK)	100	106		ug/L		106	40 - 160
Acetone	100	75.7		ug/L		76	40 - 160
Benzene	20.0	23.1		ug/L		116	70 - 130
Bromoform	20.0	13.1	*	ug/L		65	70 - 130
Bromomethane	20.0	18.1		ug/L		90	40 - 160
Carbon disulfide	20.0	20.5		ug/L		103	40 - 160
Carbon tetrachloride	20.0	18.3		ug/L		91	70 - 130
Chlorobenzene	20.0	20.2		ug/L		101	70 - 130
Chlorobromomethane	20.0	18.2		ug/L		91	70 - 130
Chlorodibromomethane	20.0	16.6		ug/L		83	70 - 130
Chloroethane	20.0	21.0		ug/L		105	40 - 160
Chloroform	20.0	20.4		ug/L		102	70 - 130
Chloromethane	20.0	21.9		ug/L		109	40 - 160
cis-1,2-Dichloroethene	20.0	20.1		ug/L		100	70 - 130
cis-1,3-Dichloropropene	20.0	21.4		ug/L		107	70 - 130
Cyclohexane	20.0	22.7		ug/L		114	70 - 130
Dichlorobromomethane	20.0	18.5		ug/L		92	70 - 130
Dichlorodifluoromethane	20.0	16.2		ug/L		81	40 - 160
Ethylbenzene	20.0	19.5		ug/L		98	70 - 130
Isopropylbenzene	20.0	19.0		ug/L		95	70 - 130
Methyl acetate	100	120		ug/L		120	70 - 130
Methyl tert-butyl ether	20.0	19.6		ug/L		98	70 - 130
Methylcyclohexane	20.0	21.4		ug/L		107	70 - 130
Methylene Chloride	20.0	19.8		ug/L		99	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-387955/3
Matrix: Water
Analysis Batch: 387955

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Styrene	20.0	20.1		ug/L		100	70 - 130
Tetrachloroethene	20.0	19.6		ug/L		98	70 - 130
Toluene	20.0	21.1		ug/L		106	70 - 130
trans-1,2-Dichloroethene	20.0	20.2		ug/L		101	70 - 130
trans-1,3-Dichloropropene	20.0	20.7		ug/L		103	70 - 130
Trichloroethene	20.0	19.3		ug/L		96	70 - 130
Trichlorofluoromethane	20.0	16.2		ug/L		81	40 - 160
Vinyl chloride	20.0	20.1		ug/L		100	70 - 130
Xylenes, Total	40.0	39.5		ug/L		99	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene	*84*		*70 - 130*
Dibromofluoromethane (Surr)	*93*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Lab Sample ID: 460-119372-B-7 MS
Matrix: Water
Analysis Batch: 387955

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.56	U	100	93.8		ug/L		94	70 - 130
1,1,2,2-Tetrachloroethane	0.38	U	100	129		ug/L		129	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	0.68	U	100	111		ug/L		111	70 - 130
1,1,2-Trichloroethane	0.16	U	100	113		ug/L		113	70 - 130
1,1-Dichloroethane	0.48	U	100	111		ug/L		111	70 - 130
1,1-Dichloroethene	0.68	U	100	97.8		ug/L		98	70 - 130
1,2,3-Trichlorobenzene	0.70	U F2	100	73.2		ug/L		73	70 - 130
1,2,4-Trichlorobenzene	0.54	U F2	100	85.8		ug/L		86	70 - 130
1,2-Dichlorobenzene	0.44	U	100	102		ug/L		102	70 - 130
1,2-Dichloroethane	0.50	U	100	97.1		ug/L		97	70 - 130
1,2-Dichloropropane	0.36	U	100	112		ug/L		112	70 - 130
1,3-Dichlorobenzene	0.66	U	100	104		ug/L		104	70 - 130
1,4-Dichlorobenzene	0.66	U	100	108		ug/L		108	70 - 130
2-Butanone (MEK)	4.4	U	500	426		ug/L		85	40 - 160
2-Hexanone	1.4	U	500	452		ug/L		90	40 - 160
4-Methyl-2-pentanone (MIBK)	1.3	U	500	526		ug/L		105	40 - 160
Acetone	2.1	U	500	363		ug/L		73	40 - 160
Benzene	0.18	U	100	115		ug/L		115	70 - 130
Bromoform	0.36	U F1	100	63.9	F1	ug/L		64	70 - 130
Bromomethane	0.36	U	100	97.8		ug/L		98	40 - 160
Carbon disulfide	0.44	U	100	99.5		ug/L		100	40 - 160
Carbon tetrachloride	0.75	J	100	89.5		ug/L		89	70 - 130
Chlorobenzene	0.48	U	100	98.9		ug/L		99	70 - 130
Chlorobromomethane	0.60	U	100	89.7		ug/L		90	70 - 130
Chlorodibromomethane	0.44	U	100	78.6		ug/L		79	70 - 130
Chloroethane	0.74	U	100	118		ug/L		118	40 - 160

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-119372-B-7 MS
Matrix: Water
Analysis Batch: 387955

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	0.44	U	100	100		ug/L		100	70 - 130
Chloromethane	0.44	U	100	121		ug/L		121	40 - 160
cis-1,2-Dichloroethene	12		100	106		ug/L		94	70 - 130
cis-1,3-Dichloropropene	0.32	U	100	106		ug/L		106	70 - 130
Cyclohexane	0.52	U	100	110		ug/L		110	70 - 130
Dichlorobromomethane	0.30	U	100	90.6		ug/L		91	70 - 130
Dichlorodifluoromethane	0.28	U	100	98.5		ug/L		99	40 - 160
Ethylbenzene	0.60	U	100	97.2		ug/L		97	70 - 130
Isopropylbenzene	0.64	U	100	94.9		ug/L		95	70 - 130
Methyl acetate	1.2	U	500	567		ug/L		113	70 - 130
Methyl tert-butyl ether	0.26	U	100	93.8		ug/L		94	70 - 130
Methylcyclohexane	0.44	U	100	102		ug/L		102	70 - 130
Methylene Chloride	0.42	U	100	97.8		ug/L		98	70 - 130
Styrene	0.34	U	100	98.9		ug/L		99	70 - 130
Tetrachloroethene	840		100	642	4	ug/L		-198	70 - 130
Toluene	0.50	U	100	106		ug/L		106	70 - 130
trans-1,2-Dichloroethene	0.61	J	100	99.2		ug/L		99	70 - 130
trans-1,3-Dichloropropene	0.38	U	100	101		ug/L		101	70 - 130
Trichloroethene	12		100	102		ug/L		90	70 - 130
Trichlorofluoromethane	0.30	U	100	95.6		ug/L		96	40 - 160
Vinyl chloride	0.12	U	100	115		ug/L		115	70 - 130
Xylenes, Total	0.56	U	200	193		ug/L		97	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*
4-Bromofluorobenzene	*84*		*70 - 130*
Dibromofluoromethane (Surr)	*91*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*

Lab Sample ID: 460-119372-B-7 MSD
Matrix: Water
Analysis Batch: 387955

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.56	U	100	93.9		ug/L		94	70 - 130	0	20
1,1,2,2-Tetrachloroethane	0.38	U	100	127		ug/L		127	70 - 130	2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	0.68	U	100	106		ug/L		106	70 - 130	4	20
1,1,2-Trichloroethane	0.16	U	100	114		ug/L		114	70 - 130	0	20
1,1-Dichloroethane	0.48	U	100	110		ug/L		110	70 - 130	0	20
1,1-Dichloroethene	0.68	U	100	89.8		ug/L		90	70 - 130	9	20
1,2,3-Trichlorobenzene	0.70	U F2	100	106	F2	ug/L		106	70 - 130	36	20
1,2,4-Trichlorobenzene	0.54	U F2	100	107	F2	ug/L		107	70 - 130	22	20
1,2-Dichlorobenzene	0.44	U	100	106		ug/L		106	70 - 130	4	20
1,2-Dichloroethane	0.50	U	100	96.8		ug/L		97	70 - 130	0	20
1,2-Dichloropropane	0.36	U	100	112		ug/L		112	70 - 130	0	20
1,3-Dichlorobenzene	0.66	U	100	105		ug/L		105	70 - 130	1	20
1,4-Dichlorobenzene	0.66	U	100	108		ug/L		108	70 - 130	1	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-119372-B-7 MSD
Matrix: Water
Analysis Batch: 387955

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	4.4	U	500	423		ug/L		85	40 - 160	1	20
2-Hexanone	1.4	U	500	447		ug/L		89	40 - 160	1	20
4-Methyl-2-pentanone (MIBK)	1.3	U	500	523		ug/L		105	40 - 160	1	20
Acetone	2.1	U	500	384		ug/L		77	40 - 160	6	20
Benzene	0.18	U	100	114		ug/L		114	70 - 130	0	20
Bromoform	0.36	U F1	100	65.7	F1	ug/L		66	70 - 130	3	20
Bromomethane	0.36	U	100	98.0		ug/L		98	40 - 160	0	20
Carbon disulfide	0.44	U	100	101		ug/L		101	40 - 160	2	20
Carbon tetrachloride	0.75	J	100	90.6		ug/L		90	70 - 130	1	20
Chlorobenzene	0.48	U	100	98.9		ug/L		99	70 - 130	0	20
Chlorobromomethane	0.60	U	100	90.7		ug/L		91	70 - 130	1	20
Chlorodibromomethane	0.44	U	100	79.9		ug/L		80	70 - 130	2	20
Chloroethane	0.74	U	100	117		ug/L		117	40 - 160	1	20
Chloroform	0.44	U	100	100		ug/L		100	70 - 130	0	20
Chloromethane	0.44	U	100	124		ug/L		124	40 - 160	3	20
cis-1,2-Dichloroethene	12		100	107		ug/L		95	70 - 130	1	20
cis-1,3-Dichloropropene	0.32	U	100	105		ug/L		105	70 - 130	1	20
Cyclohexane	0.52	U	100	109		ug/L		109	70 - 130	1	20
Dichlorobromomethane	0.30	U	100	90.3		ug/L		90	70 - 130	0	20
Dichlorodifluoromethane	0.28	U	100	97.6		ug/L		98	40 - 160	1	20
Ethylbenzene	0.60	U	100	97.9		ug/L		98	70 - 130	1	20
Isopropylbenzene	0.64	U	100	93.7		ug/L		94	70 - 130	1	20
Methyl acetate	1.2	U	500	582		ug/L		116	70 - 130	3	20
Methyl tert-butyl ether	0.26	U	100	95.9		ug/L		96	70 - 130	2	20
Methylcyclohexane	0.44	U	100	102		ug/L		102	70 - 130	0	20
Methylene Chloride	0.42	U	100	98.7		ug/L		99	70 - 130	1	20
Styrene	0.34	U	100	97.4		ug/L		97	70 - 130	2	20
Tetrachloroethene	840		100	637	4	ug/L		-203	70 - 130	1	20
Toluene	0.50	U	100	104		ug/L		104	70 - 130	2	20
trans-1,2-Dichloroethene	0.61	J	100	98.5		ug/L		98	70 - 130	1	20
trans-1,3-Dichloropropene	0.38	U	100	102		ug/L		102	70 - 130	0	20
Trichloroethene	12		100	103		ug/L		90	70 - 130	0	20
Trichlorofluoromethane	0.30	U	100	96.4		ug/L		96	40 - 160	1	20
Vinyl chloride	0.12	U	100	116		ug/L		116	70 - 130	1	20
Xylenes, Total	0.56	U	200	195		ug/L		97	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 130*
4-Bromofluorobenzene	*83*		*70 - 130*
Dibromofluoromethane (Surr)	*92*		*70 - 130*
Toluene-d8 (Surr)	*97*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-387733/8
Matrix: Water
Analysis Batch: 387733

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			08/31/16 00:39	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			08/31/16 00:39	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			08/31/16 00:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*70 - 130*		*08/31/16 00:39*	*1*
4-Bromofluorobenzene	*78*		*70 - 130*		*08/31/16 00:39*	*1*

Lab Sample ID: LCS 460-387733/4
Matrix: Water
Analysis Batch: 387733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dibromo-3-Chloropropane			0.500	0.271		ug/L		54	40 - 160		
Ethylene Dibromide			0.500	0.445		ug/L		89	70 - 130		
1,2,3-Trichloropropane			0.500	0.398		ug/L		80	40 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*
4-Bromofluorobenzene	*91*		*70 - 130*

Lab Sample ID: LCSD 460-387733/5
Matrix: Water
Analysis Batch: 387733

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.500	0.272		ug/L		54	40 - 160	0	20
Ethylene Dibromide			0.500	0.444		ug/L		89	70 - 130	0	20
1,2,3-Trichloropropane			0.500	0.397		ug/L		79	40 - 160	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*
4-Bromofluorobenzene	*89*		*70 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-387456/1-A
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		08/29/16 14:39	09/05/16 08:29	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		08/29/16 14:39	09/05/16 08:29	1
2-Methylphenol	1.3	U	10	1.3	ug/L		08/29/16 14:39	09/05/16 08:29	1
4-Methylphenol	0.87	U	10	0.87	ug/L		08/29/16 14:39	09/05/16 08:29	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		08/29/16 14:39	09/05/16 08:29	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-387456/1-A
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		08/29/16 14:39	09/05/16 08:29	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		08/29/16 14:39	09/05/16 08:29	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		08/29/16 14:39	09/05/16 08:29	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		08/29/16 14:39	09/05/16 08:29	1
Pentachlorophenol	2.2	U	20	2.2	ug/L		08/29/16 14:39	09/05/16 08:29	1
Bis(2-chloroethyl)ether	0.12	U	1.0	0.12	ug/L		08/29/16 14:39	09/05/16 08:29	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		08/29/16 14:39	09/05/16 08:29	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		08/29/16 14:39	09/05/16 08:29	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		08/29/16 14:39	09/05/16 08:29	1
Isophorone	0.67	U	10	0.67	ug/L		08/29/16 14:39	09/05/16 08:29	1
Naphthalene	0.80	U	10	0.80	ug/L		08/29/16 14:39	09/05/16 08:29	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		08/29/16 14:39	09/05/16 08:29	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		08/29/16 14:39	09/05/16 08:29	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		08/29/16 14:39	09/05/16 08:29	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		08/29/16 14:39	09/05/16 08:29	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		08/29/16 14:39	09/05/16 08:29	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		08/29/16 14:39	09/05/16 08:29	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		08/29/16 14:39	09/05/16 08:29	1
Acenaphthylene	0.65	U	10	0.65	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		08/29/16 14:39	09/05/16 08:29	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		08/29/16 14:39	09/05/16 08:29	1
Acenaphthene	0.88	U	10	0.88	ug/L		08/29/16 14:39	09/05/16 08:29	1
Dibenzofuran	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		08/29/16 14:39	09/05/16 08:29	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 08:29	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		08/29/16 14:39	09/05/16 08:29	1
Fluorene	0.80	U	10	0.80	ug/L		08/29/16 14:39	09/05/16 08:29	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		08/29/16 14:39	09/05/16 08:29	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		08/29/16 14:39	09/05/16 08:29	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 08:29	1
Hexachlorobenzene	0.47	U	1.0	0.47	ug/L		08/29/16 14:39	09/05/16 08:29	1
Phenanthrene	0.65	U	10	0.65	ug/L		08/29/16 14:39	09/05/16 08:29	1
Anthracene	0.57	U	10	0.57	ug/L		08/29/16 14:39	09/05/16 08:29	1
Carbazole	0.85	U	10	0.85	ug/L		08/29/16 14:39	09/05/16 08:29	1
Di-n-butyl phthalate	0.82	U	10	0.82	ug/L		08/29/16 14:39	09/05/16 08:29	1
Fluoranthene	0.72	U	10	0.72	ug/L		08/29/16 14:39	09/05/16 08:29	1
Pyrene	0.83	U	10	0.83	ug/L		08/29/16 14:39	09/05/16 08:29	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		08/29/16 14:39	09/05/16 08:29	1
Benzo[a]anthracene	0.55	U	1.0	0.55	ug/L		08/29/16 14:39	09/05/16 08:29	1
Chrysene	0.67	U	2.0	0.67	ug/L		08/29/16 14:39	09/05/16 08:29	1
Bis(2-ethylhexyl) phthalate	0.72	U	2.0	0.72	ug/L		08/29/16 14:39	09/05/16 08:29	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		08/29/16 14:39	09/05/16 08:29	1
Benzo[b]fluoranthene	0.44	U	1.0	0.44	ug/L		08/29/16 14:39	09/05/16 08:29	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		08/29/16 14:39	09/05/16 08:29	1
Benzo[a]pyrene	0.16	U	1.0	0.16	ug/L		08/29/16 14:39	09/05/16 08:29	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-387456/1-A
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	0.21	U	1.0	0.21	ug/L		08/29/16 14:39	09/05/16 08:29	1
Dibenz(a,h)anthracene	0.090	U	1.0	0.090	ug/L		08/29/16 14:39	09/05/16 08:29	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		08/29/16 14:39	09/05/16 08:29	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		08/29/16 14:39	09/05/16 08:29	1
Acetophenone	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 08:29	1
Benzaldehyde	0.86	U	10	0.86	ug/L		08/29/16 14:39	09/05/16 08:29	1
Caprolactam	1.1	U	10	1.1	ug/L		08/29/16 14:39	09/05/16 08:29	1
Atrazine	0.77	U	2.0	0.77	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		08/29/16 14:39	09/05/16 08:29	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		08/29/16 14:39	09/05/16 08:29	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		08/29/16 14:39	09/05/16 08:29	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		08/29/16 14:39	09/05/16 08:29	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		08/29/16 14:39	09/05/16 08:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*82*		*30 - 130*	*08/29/16 14:39*	*09/05/16 08:29*	*1*
Phenol-d5 (Surr)	*21*		*15 - 110*	*08/29/16 14:39*	*09/05/16 08:29*	*1*
Terphenyl-d14 (Surr)	*89*		*30 - 130*	*08/29/16 14:39*	*09/05/16 08:29*	*1*
2,4,6-Tribromophenol (Surr)	*99*		*15 - 110*	*08/29/16 14:39*	*09/05/16 08:29*	*1*
2-Fluorophenol (Surr)	*34*		*15 - 110*	*08/29/16 14:39*	*09/05/16 08:29*	*1*
2-Fluorobiphenyl	*79*		*30 - 130*	*08/29/16 14:39*	*09/05/16 08:29*	*1*

Lab Sample ID: LCS 460-387456/2-A
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	80.0	28.5		ug/L		36	20 - 160
2-Chlorophenol	80.0	72.0		ug/L		90	70 - 130
2-Methylphenol	80.0	57.4		ug/L		72	70 - 130
4-Methylphenol	80.0	58.9		ug/L		74	20 - 160
2-Nitrophenol	80.0	64.5		ug/L		81	70 - 130
2,4-Dimethylphenol	80.0	68.0		ug/L		85	70 - 130
2,4-Dichlorophenol	80.0	70.0		ug/L		88	70 - 130
4-Chloro-3-methylphenol	80.0	70.8		ug/L		88	20 - 160
2,4,6-Trichlorophenol	80.0	78.1		ug/L		98	70 - 130
2,4,5-Trichlorophenol	80.0	73.9		ug/L		92	20 - 160
2,4-Dinitrotoluene	80.0	76.9		ug/L		96	70 - 130
4-Nitrophenol	160	34.7		ug/L		22	20 - 160
4,6-Dinitro-2-methylphenol	160	122		ug/L		76	20 - 160
Pentachlorophenol	160	136		ug/L		85	20 - 160
Bis(2-chloroethyl)ether	80.0	69.7		ug/L		87	70 - 130
N-Nitrosodi-n-propylamine	80.0	92.1		ug/L		115	70 - 130
Hexachloroethane	80.0	62.6		ug/L		78	20 - 160
Nitrobenzene	80.0	80.3		ug/L		100	70 - 130
Isophorone	80.0	71.6		ug/L		90	70 - 130
Naphthalene	80.0	64.8		ug/L		81	70 - 130
4-Chloroaniline	80.0	72.3		ug/L		90	20 - 160

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-387456/2-A
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorobutadiene	80.0	63.6		ug/L		79	70 - 130
2-Methylnaphthalene	80.0	69.5		ug/L		87	70 - 130
Hexachlorocyclopentadiene	80.0	51.8		ug/L		65	20 - 160
2-Chloronaphthalene	80.0	71.3		ug/L		89	70 - 130
2-Nitroaniline	80.0	82.9		ug/L		104	20 - 160
Dimethyl phthalate	80.0	80.8		ug/L		101	70 - 130
Acenaphthylene	80.0	78.8		ug/L		99	70 - 130
2,6-Dinitrotoluene	80.0	71.8		ug/L		90	70 - 130
3-Nitroaniline	80.0	67.4		ug/L		84	20 - 160
Acenaphthene	80.0	73.3		ug/L		92	70 - 130
Dibenzofuran	80.0	77.0		ug/L		96	70 - 130
2,4-Dinitrophenol	160	91.0		ug/L		57	20 - 160
Diethyl phthalate	80.0	75.7		ug/L		95	70 - 130
4-Chlorophenyl phenyl ether	80.0	76.5		ug/L		96	70 - 130
Fluorene	80.0	79.1		ug/L		99	70 - 130
4-Nitroaniline	80.0	63.2		ug/L		79	20 - 160
N-Nitrosodiphenylamine	80.0	76.3		ug/L		95	70 - 130
4-Bromophenyl phenyl ether	80.0	75.7		ug/L		95	70 - 130
Hexachlorobenzene	80.0	79.4		ug/L		99	70 - 130
Phenanthrene	80.0	75.4		ug/L		94	70 - 130
Anthracene	80.0	76.0		ug/L		95	70 - 130
Carbazole	80.0	77.3		ug/L		97	70 - 130
Di-n-butyl phthalate	80.0	81.4		ug/L		102	70 - 130
Fluoranthene	80.0	78.6		ug/L		98	70 - 130
Pyrene	80.0	76.8		ug/L		96	70 - 130
Butyl benzyl phthalate	80.0	85.9		ug/L		107	70 - 130
Benzo[a]anthracene	80.0	80.4		ug/L		100	70 - 130
Chrysene	80.0	75.8		ug/L		95	70 - 130
Bis(2-ethylhexyl) phthalate	80.0	73.2		ug/L		91	70 - 130
Di-n-octyl phthalate	80.0	76.8		ug/L		96	70 - 130
Benzo[b]fluoranthene	80.0	73.4		ug/L		92	70 - 130
Benzo[k]fluoranthene	80.0	87.8		ug/L		110	70 - 130
Benzo[a]pyrene	80.0	74.0		ug/L		92	70 - 130
Indeno[1,2,3-cd]pyrene	80.0	79.8		ug/L		100	70 - 130
Dibenz(a,h)anthracene	80.0	79.8		ug/L		100	70 - 130
Benzo[g,h,i]perylene	80.0	79.9		ug/L		100	70 - 130
1,1'-Biphenyl	80.0	83.0		ug/L		104	70 - 130
Acetophenone	80.0	88.5		ug/L		111	70 - 130
2,2'-oxybis[1-chloropropane]	80.0	89.3		ug/L		112	70 - 130
1,2,4,5-Tetrachlorobenzene	80.0	67.1		ug/L		84	70 - 130
2,3,4,6-Tetrachlorophenol	80.0	73.9		ug/L		92	70 - 130
3,3'-Dichlorobenzidine	80.0	83.8		ug/L		105	70 - 130
Bis(2-chloroethoxy)methane	80.0	72.5		ug/L		91	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*90*		*30 - 130*
Phenol-d5 (Surr)	*30*		*15 - 110*
Terphenyl-d14 (Surr)	*87*		*30 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-387456/2-A
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387456

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*99*		*15 - 110*
2-Fluorophenol (Surr)	*44*		*15 - 110*
2-Fluorobiphenyl	*90*		*30 - 130*

Lab Sample ID: LCS 460-387456/3-A
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzaldehyde	160	205	E	ug/L		128	20 - 160
Caprolactam	160	35.5		ug/L		22	20 - 160
Atrazine	160	155		ug/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*96*		*30 - 130*
Phenol-d5 (Surr)	*24*		*15 - 110*
Terphenyl-d14 (Surr)	*96*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*102*		*15 - 110*
2-Fluorophenol (Surr)	*39*		*15 - 110*
2-Fluorobiphenyl	*89*		*30 - 130*

Lab Sample ID: 460-119177-J-5-A MS
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387456

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.43	U	85.1	37.0		ug/L		43	20 - 160
2-Chlorophenol	0.78	U	85.1	83.0		ug/L		97	70 - 130
2-Methylphenol	1.4	U	85.1	70.5		ug/L		83	70 - 130
4-Methylphenol	0.92	U	85.1	60.4		ug/L		71	20 - 160
2-Nitrophenol	0.63	U F2 F1	85.1	3.72	J F1	ug/L		4	70 - 130
2,4-Dimethylphenol	0.96	U	85.1	77.8		ug/L		91	70 - 130
2,4-Dichlorophenol	0.67	U F2	85.1	70.5		ug/L		83	70 - 130
4-Chloro-3-methylphenol	0.81	U	85.1	76.2		ug/L		90	20 - 160
2,4,6-Trichlorophenol	0.56	U	85.1	86.4		ug/L		102	20 - 160
2,4,5-Trichlorophenol	0.52	U	85.1	86.5		ug/L		102	20 - 160
2,4-Dinitrotoluene	1.1	U	85.1	92.8		ug/L		109	70 - 130
4-Nitrophenol	4.9	U F2	170	63.1		ug/L		37	20 - 160
4,6-Dinitro-2-methylphenol	2.1	U	170	183		ug/L		107	20 - 160
Pentachlorophenol	2.3	U	170	210		ug/L		123	20 - 160
Bis(2-chloroethyl)ether	0.13	U	85.1	74.8		ug/L		88	70 - 130
N-Nitrosodi-n-propylamine	0.88	U	85.1	103		ug/L		121	70 - 130
Hexachloroethane	0.095	U	85.1	74.3		ug/L		87	20 - 160
Nitrobenzene	0.52	U	85.1	85.3		ug/L		100	70 - 130
Isophorone	0.71	U	85.1	71.9		ug/L		84	70 - 130
Naphthalene	0.85	U	85.1	70.2		ug/L		83	70 - 130
4-Chloroaniline	0.77	U	85.1	74.6		ug/L		88	20 - 160
Hexachlorobutadiene	0.81	U	85.1	71.7		ug/L		84	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-119177-J-5-A MS
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387456

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	0.93	U	85.1	80.0		ug/L		94	70 - 130
Hexachlorocyclopentadiene	0.65	U	85.1	69.6		ug/L		82	20 - 160
2-Chloronaphthalene	0.65	U	85.1	98.2		ug/L		115	70 - 130
2-Nitroaniline	0.69	U	85.1	90.2		ug/L		106	20 - 160
Dimethyl phthalate	1.0	U	85.1	88.8		ug/L		104	70 - 130
Acenaphthylene	0.69	U	85.1	92.2		ug/L		108	70 - 130
2,6-Dinitrotoluene	0.93	U	85.1	93.8		ug/L		110	70 - 130
3-Nitroaniline	0.87	U	85.1	67.3		ug/L		79	20 - 160
Acenaphthene	0.93	U	85.1	87.3		ug/L		103	70 - 130
Dibenzofuran	0.90	U	85.1	84.9		ug/L		100	70 - 130
2,4-Dinitrophenol	2.5	U	170	161		ug/L		95	20 - 160
Diethyl phthalate	1.1	U	85.1	88.1		ug/L		103	70 - 130
4-Chlorophenyl phenyl ether	1.0	U	85.1	88.4		ug/L		104	70 - 130
Fluorene	0.85	U	85.1	85.4		ug/L		100	70 - 130
4-Nitroaniline	0.51	U	85.1	71.2		ug/L		84	20 - 160
N-Nitrosodiphenylamine	0.78	U	85.1	92.7		ug/L		109	70 - 130
4-Bromophenyl phenyl ether	1.1	U	85.1	87.9		ug/L		103	70 - 130
Hexachlorobenzene	0.50	U	85.1	99.0		ug/L		116	70 - 130
Phenanthrene	0.69	U	85.1	88.8		ug/L		104	70 - 130
Anthracene	0.60	U	85.1	90.0		ug/L		106	70 - 130
Carbazole	0.90	U	85.1	92.5		ug/L		109	70 - 130
Di-n-butyl phthalate	0.87	U	85.1	98.6		ug/L		116	70 - 130
Fluoranthene	0.76	U	85.1	97.2		ug/L		114	70 - 130
Pyrene	0.88	U	85.1	78.3		ug/L		92	70 - 130
Butyl benzyl phthalate	0.64	U	85.1	82.9		ug/L		97	70 - 130
Benzo[a]anthracene	0.58	U	85.1	83.2		ug/L		98	70 - 130
Chrysene	0.71	U	85.1	89.5		ug/L		105	70 - 130
Bis(2-ethylhexyl) phthalate	0.95	J	85.1	83.4		ug/L		97	70 - 130
Di-n-octyl phthalate	0.73	U	85.1	87.9		ug/L		103	70 - 130
Benzo[b]fluoranthene	0.47	U	85.1	85.7		ug/L		101	70 - 130
Benzo[k]fluoranthene	0.19	U F2	85.1	99.0		ug/L		116	70 - 130
Benzo[a]pyrene	0.17	U	85.1	86.9		ug/L		102	70 - 130
Indeno[1,2,3-cd]pyrene	0.22	U	85.1	96.4		ug/L		113	70 - 130
Dibenz(a,h)anthracene	0.095	U	85.1	98.6		ug/L		116	70 - 130
Benzo[g,h,i]perylene	0.79	U	85.1	90.6		ug/L		106	70 - 130
1,1'-Biphenyl	0.67	U	85.1	98.1		ug/L		115	70 - 130
Acetophenone	1.1	U	85.1	98.4		ug/L		116	70 - 130
Benzaldehyde	0.91	U	170	168		ug/L		99	20 - 160
Caprolactam	1.1	U	170	40.5		ug/L		24	20 - 160
Atrazine	0.82	U	170	179		ug/L		105	70 - 130
2,2'-oxybis[1-chloropropane]	0.99	U	85.1	95.0		ug/L		112	70 - 130
1,2,4,5-Tetrachlorobenzene	0.46	U	85.1	87.9		ug/L		103	70 - 130
2,3,4,6-Tetrachlorophenol	0.73	U	85.1	92.6		ug/L		109	70 - 130
3,3'-Dichlorobenzidine	1.1	U	85.1	69.8		ug/L		82	70 - 130
Bis(2-chloroethoxy)methane	0.73	U	85.1	80.2		ug/L		94	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*89*		*30 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-119177-J-5-A MS
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387456

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Phenol-d5 (Surr)	*37*		*15 - 110*
Terphenyl-d14 (Surr)	*87*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*102*		*15 - 110*
2-Fluorophenol (Surr)	*48*		*15 - 110*
2-Fluorobiphenyl	*100*		*30 - 130*

Lab Sample ID: 460-119177-K-5-A MSD
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 387456

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.43	U	84.7	36.3		ug/L		43	20 - 160	2	20
2-Chlorophenol	0.78	U	84.7	82.0		ug/L		97	70 - 130	1	20
2-Methylphenol	1.4	U	84.7	69.5		ug/L		82	70 - 130	1	20
4-Methylphenol	0.92	U	84.7	59.9		ug/L		71	20 - 160	1	20
2-Nitrophenol	0.63	U F2 F1	84.7	82.0	F2	ug/L		97	70 - 130	183	20
2,4-Dimethylphenol	0.96	U	84.7	73.7		ug/L		87	70 - 130	5	20
2,4-Dichlorophenol	0.67	U F2	84.7	88.2	F2	ug/L		104	70 - 130	22	20
4-Chloro-3-methylphenol	0.81	U	84.7	79.6		ug/L		94	20 - 160	4	20
2,4,6-Trichlorophenol	0.56	U	84.7	80.0		ug/L		94	20 - 160	8	20
2,4,5-Trichlorophenol	0.52	U	84.7	81.7		ug/L		96	20 - 160	6	20
2,4-Dinitrotoluene	1.1	U	84.7	84.7		ug/L		100	70 - 130	9	20
4-Nitrophenol	4.9	U F2	169	50.6	F2	ug/L		30	20 - 160	22	20
4,6-Dinitro-2-methylphenol	2.1	U	169	164		ug/L		97	20 - 160	11	20
Pentachlorophenol	2.3	U	169	185		ug/L		109	20 - 160	12	20
Bis(2-chloroethyl)ether	0.13	U	84.7	75.8		ug/L		89	70 - 130	1	20
N-Nitrosodi-n-propylamine	0.88	U	84.7	105		ug/L		123	70 - 130	2	20
Hexachloroethane	0.095	U	84.7	85.6		ug/L		101	20 - 160	14	20
Nitrobenzene	0.52	U	84.7	88.3		ug/L		104	70 - 130	3	20
Isophorone	0.71	U	84.7	75.5		ug/L		89	70 - 130	5	20
Naphthalene	0.85	U	84.7	77.4		ug/L		91	70 - 130	10	20
4-Chloroaniline	0.77	U	84.7	72.3		ug/L		85	20 - 160	3	20
Hexachlorobutadiene	0.81	U	84.7	79.6		ug/L		94	70 - 130	10	20
2-Methylnaphthalene	0.93	U	84.7	80.2		ug/L		95	70 - 130	0	20
Hexachlorocyclopentadiene	0.65	U	84.7	67.4		ug/L		79	20 - 160	3	20
2-Chloronaphthalene	0.65	U	84.7	89.7		ug/L		106	70 - 130	9	20
2-Nitroaniline	0.69	U	84.7	84.7		ug/L		100	20 - 160	6	20
Dimethyl phthalate	1.0	U	84.7	78.7		ug/L		93	70 - 130	12	20
Acenaphthylene	0.69	U	84.7	89.0		ug/L		105	70 - 130	4	20
2,6-Dinitrotoluene	0.93	U	84.7	88.5		ug/L		104	70 - 130	6	20
3-Nitroaniline	0.87	U	84.7	64.3		ug/L		76	20 - 160	5	20
Acenaphthene	0.93	U	84.7	80.5		ug/L		95	70 - 130	8	20
Dibenzofuran	0.90	U	84.7	83.7		ug/L		99	70 - 130	1	20
2,4-Dinitrophenol	2.5	U	169	141		ug/L		83	20 - 160	13	20
Diethyl phthalate	1.1	U	84.7	78.9		ug/L		93	70 - 130	11	20
4-Chlorophenyl phenyl ether	1.0	U	84.7	83.7		ug/L		99	70 - 130	5	20
Fluorene	0.85	U	84.7	85.3		ug/L		101	70 - 130	0	20
4-Nitroaniline	0.51	U	84.7	67.7		ug/L		80	20 - 160	5	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-119177-K-5-A MSD
Matrix: Water
Analysis Batch: 388683

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 387456

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Nitrosodiphenylamine	0.78	U	84.7	80.3		ug/L		95	70 - 130	14	20
4-Bromophenyl phenyl ether	1.1	U	84.7	82.6		ug/L		97	70 - 130	6	20
Hexachlorobenzene	0.50	U	84.7	88.0		ug/L		104	70 - 130	12	20
Phenanthrene	0.69	U	84.7	87.0		ug/L		103	70 - 130	2	20
Anthracene	0.60	U	84.7	86.9		ug/L		103	70 - 130	3	20
Carbazole	0.90	U	84.7	82.9		ug/L		98	70 - 130	11	20
Di-n-butyl phthalate	0.87	U	84.7	91.8		ug/L		108	70 - 130	7	20
Fluoranthene	0.76	U	84.7	91.0		ug/L		107	70 - 130	7	20
Pyrene	0.88	U	84.7	76.1		ug/L		90	70 - 130	3	20
Butyl benzyl phthalate	0.64	U	84.7	83.2		ug/L		98	70 - 130	0	20
Benzo[a]anthracene	0.58	U	84.7	85.6		ug/L		101	70 - 130	3	20
Chrysene	0.71	U	84.7	80.0		ug/L		94	70 - 130	11	20
Bis(2-ethylhexyl) phthalate	0.95	J	84.7	85.4		ug/L		100	70 - 130	2	20
Di-n-octyl phthalate	0.73	U	84.7	79.7		ug/L		94	70 - 130	10	20
Benzo[b]fluoranthene	0.47	U	84.7	82.8		ug/L		98	70 - 130	3	20
Benzo[k]fluoranthene	0.19	U F2	84.7	79.9	F2	ug/L		94	70 - 130	21	20
Benzo[a]pyrene	0.17	U	84.7	80.1		ug/L		95	70 - 130	8	20
Indeno[1,2,3-cd]pyrene	0.22	U	84.7	88.3		ug/L		104	70 - 130	9	20
Dibenz(a,h)anthracene	0.095	U	84.7	85.6		ug/L		101	70 - 130	14	20
Benzo[g,h,i]perylene	0.79	U	84.7	84.5		ug/L		100	70 - 130	7	20
1,1'-Biphenyl	0.67	U	84.7	91.2		ug/L		108	70 - 130	7	20
Acetophenone	1.1	U	84.7	102		ug/L		120	70 - 130	4	20
Benzaldehyde	0.91	U	169	169		ug/L		100	20 - 160	1	20
Caprolactam	1.1	U	169	36.2		ug/L		21	20 - 160	11	20
Atrazine	0.82	U	169	175		ug/L		104	70 - 130	2	20
2,2'-oxybis[1-chloropropane]	0.99	U	84.7	101		ug/L		119	70 - 130	6	20
1,2,4,5-Tetrachlorobenzene	0.46	U	84.7	84.0		ug/L		99	70 - 130	5	20
2,3,4,6-Tetrachlorophenol	0.73	U	84.7	84.6		ug/L		100	70 - 130	9	20
3,3'-Dichlorobenzidine	1.1	U	84.7	66.4		ug/L		78	70 - 130	5	20
Bis(2-chloroethoxy)methane	0.73	U	84.7	83.1		ug/L		98	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*93*		*30 - 130*
Phenol-d5 (Surr)	*36*		*15 - 110*
Terphenyl-d14 (Surr)	*83*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*111*	*X*	*15 - 110*
2-Fluorophenol (Surr)	*51*		*15 - 110*
2-Fluorobiphenyl	*93*		*30 - 130*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 460-387456/1-A
Matrix: Water
Analysis Batch: 388366

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		08/29/16 14:39	09/04/16 13:26	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		08/29/16 14:39	09/04/16 13:26	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 460-387456/1-A
Matrix: Water
Analysis Batch: 388366

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		08/29/16 14:39	09/04/16 13:26	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		08/29/16 14:39	09/04/16 13:26	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		08/29/16 14:39	09/04/16 13:26	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		08/29/16 14:39	09/04/16 13:26	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		08/29/16 14:39	09/04/16 13:26	1
N-Nitrosodimethylamine	0.051	U	0.20	0.051	ug/L		08/29/16 14:39	09/04/16 13:26	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		08/29/16 14:39	09/04/16 13:26	1

Lab Sample ID: LCS 460-387456/4-A
Matrix: Water
Analysis Batch: 388366

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.800	0.581		ug/L		73	70 - 130
Benzo[a]pyrene	0.800	0.540	*	ug/L		68	70 - 130
Benzo[b]fluoranthene	0.800	0.548	*	ug/L		69	70 - 130
Bis(2-chloroethyl)ether	0.800	0.689		ug/L		86	70 - 130
Dibenz(a,h)anthracene	0.800	0.544	*	ug/L		68	70 - 130
Hexachlorobenzene	0.800	0.616		ug/L		77	70 - 130
Indeno[1,2,3-cd]pyrene	0.800	0.558		ug/L		70	70 - 130
N-Nitrosodimethylamine	0.800	0.340		ug/L		42	20 - 160
Pentachlorophenol	1.60	0.577		ug/L		36	20 - 160

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-387586/1-A
Matrix: Water
Analysis Batch: 387810

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387586

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1016	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1221	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1232	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1242	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1248	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1254	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1260	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1262	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 09:43	1
PCB-1268	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	08/31/16 09:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*100*		*30 - 150*	*08/30/16 08:03*	*08/31/16 09:43*	*1*
Tetrachloro-m-xylene	*99*		*30 - 150*	*08/30/16 08:03*	*08/31/16 09:43*	*1*
DCB Decachlorobiphenyl	*102*		*30 - 150*	*08/30/16 08:03*	*08/31/16 09:43*	*1*
DCB Decachlorobiphenyl	*80*		*30 - 150*	*08/30/16 08:03*	*08/31/16 09:43*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 460-387586/2-A
Matrix: Water
Analysis Batch: 387810

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	4.00	4.91		ug/L		123	40 - 140
PCB-1016	4.00	5.00		ug/L		125	40 - 140
PCB-1260	4.00	4.51		ug/L		113	40 - 140
PCB-1260	4.00	4.67		ug/L		117	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*131*		*30 - 150*
Tetrachloro-m-xylene	*128*		*30 - 150*
DCB Decachlorobiphenyl	*100*		*30 - 150*
DCB Decachlorobiphenyl	*92*		*30 - 150*

Lab Sample ID: 460-119177-L-5-A MS
Matrix: Water
Analysis Batch: 387810

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 387586

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.10	U	4.00	4.20		ug/L		105	40 - 140
PCB-1016	0.10	U	4.00	4.15		ug/L		104	40 - 140
PCB-1260	0.089	U	4.00	4.27		ug/L		107	40 - 140
PCB-1260	0.089	U	4.00	3.69		ug/L		92	40 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*115*		*30 - 150*
Tetrachloro-m-xylene	*100*		*30 - 150*
DCB Decachlorobiphenyl	*94*		*30 - 150*
DCB Decachlorobiphenyl	*79*		*30 - 150*

Lab Sample ID: 460-119177-L-5-B MSD
Matrix: Water
Analysis Batch: 387810

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 387586

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	0.10	U	4.35	3.94		ug/L		91	40 - 140	5	20
PCB-1016	0.10	U	4.35	4.84		ug/L		111	40 - 140	14	20
PCB-1260	0.089	U	4.35	3.97		ug/L		91	40 - 140	7	20
PCB-1260	0.089	U	4.35	4.33		ug/L		100	40 - 140	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*99*		*30 - 150*
Tetrachloro-m-xylene	*114*		*30 - 150*
DCB Decachlorobiphenyl	*84*		*30 - 150*
DCB Decachlorobiphenyl	*91*		*30 - 150*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography - RA

Lab Sample ID: MB 460-387586/1-A
Matrix: Water
Analysis Batch: 388284

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387586

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total - RA	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	09/02/16 05:28	1
PCB-1016 - RA	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	09/02/16 05:28	1
PCB-1221 - RA	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	09/02/16 05:28	1
PCB-1232 - RA	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	09/02/16 05:28	1
PCB-1242 - RA	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	09/02/16 05:28	1
PCB-1248 - RA	0.098	U	0.40	0.098	ug/L		08/30/16 08:03	09/02/16 05:28	1
PCB-1254 - RA	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	09/02/16 05:28	1
PCB-1260 - RA	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	09/02/16 05:28	1
PCB-1262 - RA	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	09/02/16 05:28	1
PCB-1268 - RA	0.084	U	0.40	0.084	ug/L		08/30/16 08:03	09/02/16 05:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene - RA	*101*		*30 - 150*	*08/30/16 08:03*	*09/02/16 05:28*	*1*
Tetrachloro-m-xylene - RA	*96*		*30 - 150*	*08/30/16 08:03*	*09/02/16 05:28*	*1*
DCB Decachlorobiphenyl - RA	*79*		*30 - 150*	*08/30/16 08:03*	*09/02/16 05:28*	*1*
DCB Decachlorobiphenyl - RA	*73*		*30 - 150*	*08/30/16 08:03*	*09/02/16 05:28*	*1*

Lab Sample ID: LCS 460-387586/2-A
Matrix: Water
Analysis Batch: 388284

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016 - RA	4.00	4.64		ug/L		116	40 - 140
PCB-1016 - RA	4.00	4.38		ug/L		110	40 - 140
PCB-1260 - RA	4.00	4.01		ug/L		100	40 - 140
PCB-1260 - RA	4.00	3.94		ug/L		99	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene - RA	*122*		*30 - 150*
Tetrachloro-m-xylene - RA	*116*		*30 - 150*
DCB Decachlorobiphenyl - RA	*90*		*30 - 150*
DCB Decachlorobiphenyl - RA	*77*		*30 - 150*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 460-389346/3
Matrix: Water
Analysis Batch: 389346

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			09/08/16 21:01	1
Sulfate	0.11	U	0.60	0.11	mg/L			09/08/16 21:01	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 460-389346/44
Matrix: Water
Analysis Batch: 389346

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.035		mg/L		101	90 - 110
Chloride	1.50	1.472		mg/L		98	90 - 110
Fluoride	1.00	0.981		mg/L		98	90 - 110
Sulfate	7.50	7.252		mg/L		97	90 - 110

Lab Sample ID: LCSD 460-389346/45
Matrix: Water
Analysis Batch: 389346

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	4.960		mg/L		99	90 - 110	1	15
Chloride	1.50	1.457		mg/L		97	90 - 110	1	15
Fluoride	1.00	0.988		mg/L		99	90 - 110	1	15
Sulfate	7.50	7.282		mg/L		97	90 - 110	0	15

Lab Sample ID: MB 460-389772/3
Matrix: Water
Analysis Batch: 389772

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			09/11/16 02:15	1
Sulfate	0.11	U	0.60	0.11	mg/L			09/11/16 02:15	1

Lab Sample ID: LCS 460-389772/4
Matrix: Water
Analysis Batch: 389772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.025		mg/L		101	90 - 110
Chloride	1.50	1.491		mg/L		99	90 - 110
Fluoride	1.00	1.037		mg/L		104	90 - 110
Sulfate	7.50	7.272		mg/L		97	90 - 110

Lab Sample ID: LCSD 460-389772/5
Matrix: Water
Analysis Batch: 389772

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	5.073		mg/L		101	90 - 110	1	15
Chloride	1.50	1.475		mg/L		98	90 - 110	1	15
Fluoride	1.00	0.942		mg/L		94	90 - 110	10	15
Sulfate	7.50	7.133		mg/L		95	90 - 110	2	15

Lab Sample ID: 460-119489-B-4 DU
Matrix: Water
Analysis Batch: 389772

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	204	E	0.11	U	mg/L		NC	15

Method: 9056A - Anions, Ion Chromatography - DL2

Lab Sample ID: 460-119177-E-5 DU
Matrix: Water
Analysis Batch: 389346

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate - DL2	138	D	139.0		mg/L		1	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 460-388629/1-A ^2
Matrix: Water
Analysis Batch: 389269

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388629

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	63.6	U	200	63.6	ug/L		09/03/16 19:37	09/08/16 05:03	2
Iron	42.4	U	120	42.4	ug/L		09/03/16 19:37	09/08/16 05:03	2

Lab Sample ID: MB 460-388629/1-A ^2
Matrix: Water
Analysis Batch: 389608

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388629

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/03/16 19:37	09/08/16 23:24	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/03/16 19:37	09/08/16 23:24	2
Barium	1.2	U	4.0	1.2	ug/L		09/03/16 19:37	09/08/16 23:24	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/03/16 19:37	09/08/16 23:24	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/03/16 19:37	09/08/16 23:24	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 23:24	2
Chromium	1.3	U	4.0	1.3	ug/L		09/03/16 19:37	09/08/16 23:24	2
Copper	1.4	U	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 23:24	2
Manganese	2.5	U	8.0	2.5	ug/L		09/03/16 19:37	09/08/16 23:24	2
Nickel	1.4	U	4.0	1.4	ug/L		09/03/16 19:37	09/08/16 23:24	2
Lead	0.38	U	1.2	0.38	ug/L		09/03/16 19:37	09/08/16 23:24	2
Antimony	0.62	U	2.0	0.62	ug/L		09/03/16 19:37	09/08/16 23:24	2
Selenium	0.73	U	10.0	0.73	ug/L		09/03/16 19:37	09/08/16 23:24	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/03/16 19:37	09/08/16 23:24	2
Zinc	7.0	U	16.0	7.0	ug/L		09/03/16 19:37	09/08/16 23:24	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/03/16 19:37	09/08/16 23:24	2
Sodium	69.0	U	200	69.0	ug/L		09/03/16 19:37	09/08/16 23:24	2
Potassium	91.4	U	200	91.4	ug/L		09/03/16 19:37	09/08/16 23:24	2
Calcium	60.5	U	200	60.5	ug/L		09/03/16 19:37	09/08/16 23:24	2
Thallium	0.26	U	0.80	0.26	ug/L		09/03/16 19:37	09/08/16 23:24	2

Lab Sample ID: LCS 460-388629/2-A ^2
Matrix: Water
Analysis Batch: 389269

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388629

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Magnesium	2500	2052		ug/L		82	80 - 120
Iron	2500	2534		ug/L		101	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-388629/2-A ^2
Matrix: Water
Analysis Batch: 389608

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388629

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	25.27		ug/L		101	80 - 120
Arsenic	50.0	48.66		ug/L		97	80 - 120
Barium	50.0	51.28		ug/L		103	80 - 120
Beryllium	25.0	26.04		ug/L		104	80 - 120
Cadmium	25.0	25.35		ug/L		101	80 - 120
Cobalt	25.0	25.05		ug/L		100	80 - 120
Chromium	50.0	50.70		ug/L		101	80 - 120
Copper	50.0	50.51		ug/L		101	80 - 120
Manganese	250	256.9		ug/L		103	80 - 120
Nickel	50.0	50.34		ug/L		101	80 - 120
Lead	25.0	25.63		ug/L		103	80 - 120
Antimony	25.0	25.65		ug/L		103	80 - 120
Selenium	50.0	46.32		ug/L		93	80 - 120
Vanadium	50.0	49.65		ug/L		99	80 - 120
Zinc	250	247.0		ug/L		99	80 - 120
Aluminum	2500	2496		ug/L		100	80 - 120
Sodium	2500	2401		ug/L		96	80 - 120
Potassium	2500	2582		ug/L		103	80 - 120
Calcium	2500	2649		ug/L		106	80 - 120
Thallium	20.0	20.20		ug/L		101	80 - 120

Lab Sample ID: 460-119189-E-9-D MS ^2
Matrix: Water
Analysis Batch: 389269

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 388629

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Magnesium	8810		2500	11400		ug/L		104	75 - 125
Iron	124		2500	2692		ug/L		103	75 - 125

Lab Sample ID: 460-119189-E-9-D MS ^2
Matrix: Water
Analysis Batch: 389608

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 388629

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.3	U	25.0	26.34		ug/L		105	75 - 125
Arsenic	0.72	J	50.0	47.90		ug/L		94	75 - 125
Barium	37.1		50.0	90.99		ug/L		108	75 - 125
Beryllium	0.24	U	25.0	27.88		ug/L		112	75 - 125
Cadmium	0.71	U	25.0	26.40		ug/L		106	75 - 125
Cobalt	1.3	U	25.0	26.22		ug/L		105	75 - 125
Chromium	1.3	U	50.0	53.12		ug/L		106	75 - 125
Copper	1.4	U	50.0	52.76		ug/L		106	75 - 125
Manganese	27.9		250	295.3		ug/L		107	75 - 125
Nickel	1.4	U	50.0	52.41		ug/L		105	75 - 125
Lead	0.38	U	25.0	27.19		ug/L		109	75 - 125
Antimony	0.62	U	25.0	26.97		ug/L		108	75 - 125
Selenium	0.73	U	50.0	44.02		ug/L		88	75 - 125
Vanadium	1.9	U	50.0	53.01		ug/L		106	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119189-E-9-D MS ^2
Matrix: Water
Analysis Batch: 389608

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 388629

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	7.0	U	250	255.1		ug/L		102	75 - 125
Aluminum	62.8		2500	2687		ug/L		105	75 - 125
Sodium	22500		2500	25610	4	ug/L		125	75 - 125
Potassium	2090		2500	4814		ug/L		109	75 - 125
Calcium	22800		2500	26330	4	ug/L		141	75 - 125
Thallium	0.26	U	20.0	21.56		ug/L		108	75 - 125

Lab Sample ID: 460-119189-C-9-A DU ^2
Matrix: Water
Analysis Batch: 389269

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 388629

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Magnesium	8810		9151		ug/L		4	20
Iron	124		127.9		ug/L		3	20

Lab Sample ID: 460-119189-C-9-A DU ^2
Matrix: Water
Analysis Batch: 389608

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 388629

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.3	U	1.3	U	ug/L		NC	20
Arsenic	0.72	J	0.734	J	ug/L		2	20
Barium	37.1		38.99		ug/L		5	20
Beryllium	0.24	U	0.24	U	ug/L		NC	20
Cadmium	0.71	U	0.71	U	ug/L		NC	20
Cobalt	1.3	U	1.3	U	ug/L		NC	20
Chromium	1.3	U	1.3	U	ug/L		NC	20
Copper	1.4	U	1.4	U	ug/L		NC	20
Manganese	27.9		29.58		ug/L		6	20
Nickel	1.4	U	1.4	U	ug/L		NC	20
Lead	0.38	U	0.38	U	ug/L		NC	20
Antimony	0.62	U	0.62	U	ug/L		NC	20
Selenium	0.73	U	0.73	U	ug/L		NC	20
Vanadium	1.9	U	1.9	U	ug/L		NC	20
Zinc	7.0	U	7.0	U	ug/L		NC	20
Aluminum	62.8		65.15		ug/L		4	20
Sodium	22500		23110		ug/L		3	20
Potassium	2090		2157		ug/L		3	20
Calcium	22800		23830		ug/L		4	20
Thallium	0.26	U	0.26	U	ug/L		NC	20

Lab Sample ID: LCS 460-389017/2-A ^2
Matrix: Water
Analysis Batch: 389242

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389017

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	10.0	8.97		ug/L		90	80 - 120
Arsenic	20.0	19.13		ug/L		96	80 - 120
Barium	20.0	19.72		ug/L		99	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-389017/2-A ^2
Matrix: Water
Analysis Batch: 389242

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389017

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	10.0	8.64		ug/L		86	80 - 120
Cadmium	10.0	9.22		ug/L		92	80 - 120
Cobalt	10.0	9.22		ug/L		92	80 - 120
Chromium	20.0	18.48		ug/L		92	80 - 120
Copper	20.0	17.97		ug/L		90	80 - 120
Manganese	100	95.54		ug/L		96	80 - 120
Nickel	20.0	18.16		ug/L		91	80 - 120
Lead	10.0	9.47		ug/L		95	80 - 120
Antimony	10.0	8.90		ug/L		89	80 - 120
Selenium	20.0	18.98		ug/L		95	80 - 120
Vanadium	20.0	18.85		ug/L		94	80 - 120
Zinc	100	91.54		ug/L		92	80 - 120
Aluminum	1000	983.4		ug/L		98	80 - 120
Sodium	1000	903.0		ug/L		90	80 - 120
Magnesium	1000	975.8		ug/L		98	80 - 120
Calcium	1000	1041		ug/L		104	80 - 120
Iron	1000	996.6		ug/L		100	80 - 120
Thallium	8.00	7.50		ug/L		94	80 - 120

Lab Sample ID: LCS 460-389017/2-A ^2
Matrix: Water
Analysis Batch: 389580

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389017

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	1000	925.2		ug/L		93	80 - 120

Lab Sample ID: MB 460-389010/1-B ^2
Matrix: Water
Analysis Batch: 389242

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 389017

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 11:28	09/07/16 14:26	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/07/16 11:28	09/07/16 14:26	2
Barium	1.2	U	4.0	1.2	ug/L		09/07/16 11:28	09/07/16 14:26	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 11:28	09/07/16 14:26	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 11:28	09/07/16 14:26	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 14:26	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 11:28	09/07/16 14:26	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 14:26	2
Manganese	2.5	U	8.0	2.5	ug/L		09/07/16 11:28	09/07/16 14:26	2
Nickel	1.4	U	4.0	1.4	ug/L		09/07/16 11:28	09/07/16 14:26	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 11:28	09/07/16 14:26	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 11:28	09/07/16 14:26	2
Selenium	0.73	U	10.0	0.73	ug/L		09/07/16 11:28	09/07/16 14:26	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 11:28	09/07/16 14:26	2
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 11:28	09/07/16 14:26	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/07/16 11:28	09/07/16 14:26	2
Sodium	69.0	U	200	69.0	ug/L		09/07/16 11:28	09/07/16 14:26	2
Magnesium	63.6	U	200	63.6	ug/L		09/07/16 11:28	09/07/16 14:26	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-389010/1-B ^2
Matrix: Water
Analysis Batch: 389242

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 389017

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	60.5	U	200	60.5	ug/L		09/07/16 11:28	09/07/16 14:26	2
Iron	42.4	U	120	42.4	ug/L		09/07/16 11:28	09/07/16 14:26	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 11:28	09/07/16 14:26	2

Lab Sample ID: MB 460-389010/1-B ^2
Matrix: Water
Analysis Batch: 389580

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 389017

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	91.4	U	200	91.4	ug/L		09/07/16 11:28	09/09/16 12:10	2

Lab Sample ID: 460-119333-F-3-I MS ^2
Matrix: Water
Analysis Batch: 389242

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 389017

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.3	U	10.0	8.01		ug/L		80	75 - 125
Arsenic	1.7	J	20.0	19.17		ug/L		87	75 - 125
Barium	78.3		20.0	95.38		ug/L		85	75 - 125
Beryllium	0.24	U	10.0	8.07		ug/L		81	75 - 125
Cadmium	0.71	U	10.0	8.36		ug/L		84	75 - 125
Cobalt	2.8	J	10.0	11.06		ug/L		82	75 - 125
Chromium	1.8	J	20.0	16.85		ug/L		75	75 - 125
Copper	7.7		20.0	22.70		ug/L		75	75 - 125
Manganese	1280		100	1351	4	ug/L		73	75 - 125
Nickel	8.3		20.0	24.26		ug/L		80	75 - 125
Lead	0.62	J	10.0	9.24		ug/L		86	75 - 125
Antimony	0.62	U	10.0	8.22		ug/L		82	75 - 125
Selenium	0.73	U	20.0	17.68		ug/L		88	75 - 125
Vanadium	1.9	U	20.0	16.85		ug/L		84	75 - 125
Zinc	11.1	J	100	96.02		ug/L		85	75 - 125
Aluminum	205		1000	1097		ug/L		89	75 - 125
Sodium	18500		1000	19450	4	ug/L		99	75 - 125
Magnesium	5360		1000	6210	4	ug/L		85	75 - 125
Calcium	12400		1000	13310	4	ug/L		87	75 - 125
Iron	486	F1	1000	932.2	F1	ug/L		45	75 - 125
Thallium	0.26	U	8.00	6.74		ug/L		84	75 - 125

Lab Sample ID: 460-119333-F-3-I MS ^2
Matrix: Water
Analysis Batch: 389580

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 389017

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	4590		1000	5366	4	ug/L		77	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119333-F-3-H DU ^2
Matrix: Water
Analysis Batch: 389242

Client Sample ID: Duplicate
Prep Type: Dissolved
Prep Batch: 389017

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.3	U	1.3	U	ug/L		NC	20
Arsenic	1.7	J	1.82	J	ug/L		8	20
Barium	78.3		84.40		ug/L		7	20
Beryllium	0.24	U	0.24	U	ug/L		NC	20
Cadmium	0.71	U	0.71	U	ug/L		NC	20
Cobalt	2.8	J	3.04	J	ug/L		8	20
Chromium	1.8	J	1.3	U	ug/L		NC	20
Copper	7.7		6.67		ug/L		15	20
Manganese	1280		1358		ug/L		6	20
Nickel	8.3		8.61		ug/L		4	20
Lead	0.62	J	0.602	J	ug/L		2	20
Antimony	0.62	U	0.62	U	ug/L		NC	20
Selenium	0.73	U	0.73	U	ug/L		NC	20
Vanadium	1.9	U	1.9	U	ug/L		NC	20
Zinc	11.1	J	12.62	J	ug/L		13	20
Aluminum	205		219.4		ug/L		7	20
Sodium	18500		19690		ug/L		6	20
Magnesium	5360		5742		ug/L		7	20
Calcium	12400		13220		ug/L		6	20
Iron	486	F1	62.62	J F3	ug/L		154	20
Thallium	0.26	U	0.26	U	ug/L		NC	20

Lab Sample ID: 460-119333-F-3-H DU ^2
Matrix: Water
Analysis Batch: 389580

Client Sample ID: Duplicate
Prep Type: Dissolved
Prep Batch: 389017

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Potassium	4590		4496		ug/L		2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-388129/1-A
Matrix: Water
Analysis Batch: 388212

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388129

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/01/16 10:15	09/01/16 13:15	1

Lab Sample ID: LCS 460-388129/2-A
Matrix: Water
Analysis Batch: 388212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388129

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.913		ug/L		91	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 460-119189-E-9-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 388212 — **Prep Batch: 388129**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.17	U	1.00	0.944		ug/L		94	75 - 125

Lab Sample ID: 460-119189-B-9-A DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 388212 — **Prep Batch: 388129**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.17	U	0.17	U	ug/L		NC	20

Lab Sample ID: MB 460-388820/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 388881 — **Prep Batch: 388820**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/06/16 11:43	09/06/16 13:27	1

Lab Sample ID: LCS 460-388820/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 388881 — **Prep Batch: 388820**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.912		ug/L		91	80 - 120

Lab Sample ID: 460-119333-E-3-F MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 388881 — **Prep Batch: 388820**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.17	U	1.00	1.01		ug/L		101	75 - 125

Lab Sample ID: 460-119333-E-3-E DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 388881 — **Prep Batch: 388820**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.17	U	0.17	U	ug/L		NC	20

Lab Sample ID: MB 460-389021/4-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 389094 — **Prep Batch: 389021**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:41	09/07/16 14:41	1

Lab Sample ID: LCS 460-389021/5-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 389094 — **Prep Batch: 389021**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	1.12		ug/L		112	80 - 120

Lab Sample ID: 460-119333-F-3-L MS
Matrix: Water
Analysis Batch: 389094

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 389021

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.17	U	1.00	1.09		ug/L		109	75 - 125

Lab Sample ID: 460-119333-F-3-K DU
Matrix: Water
Analysis Batch: 389094

Client Sample ID: Duplicate
Prep Type: Dissolved
Prep Batch: 389021

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.17	U	0.17	U	ug/L		NC	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 460-389013/1-A
Matrix: Water
Analysis Batch: 389070

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389013

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 11:08	09/07/16 14:21	1

Lab Sample ID: HLCS 460-389013/3-A
Matrix: Water
Analysis Batch: 389070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389013

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.200	0.202		mg/L		101	80 - 120

Lab Sample ID: LLCS 460-389013/2-A
Matrix: Water
Analysis Batch: 389070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389013

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0950		mg/L		95	80 - 120

Lab Sample ID: 460-119270-2 MS
Matrix: Water
Analysis Batch: 389070

Client Sample ID: RW-4A(62-72)-082516
Prep Type: Total/NA
Prep Batch: 389013

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0020	U	0.200	0.168		mg/L		84	75 - 125

Lab Sample ID: 460-119270-2 MSD
Matrix: Water
Analysis Batch: 389070

Client Sample ID: RW-4A(62-72)-082516
Prep Type: Total/NA
Prep Batch: 389013

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0020	U	0.200	0.166		mg/L		83	75 - 125	1	20

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: MB 460-389074/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 389260 — **Prep Batch: 389074**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 15:17	09/08/16 10:05	1

Lab Sample ID: HLCS 460-389074/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 389260 — **Prep Batch: 389074**

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.200	0.185		mg/L		93	80 - 120

Lab Sample ID: LLCS 460-389074/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 389260 — **Prep Batch: 389074**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0947		mg/L		95	80 - 120

Lab Sample ID: 460-119489-F-4-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 389260 — **Prep Batch: 389074**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0022	J	0.200	0.175		mg/L		86	75 - 125

Lab Sample ID: 460-119489-F-4-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 389260 — **Prep Batch: 389074**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0022	J	0.200	0.182		mg/L		90	75 - 125	4	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 460-389331/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 389331

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/08/16 15:18	1
Alkalinity	5.0	U	5.0	5.0	mg/L			09/08/16 15:18	1

Lab Sample ID: LCSSRM 460-389331/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 389331

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	44.1	44.22		mg/L		100.3	90.5 - 107.9

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 460-119156-J-6 DU
Matrix: Water
Analysis Batch: 389331

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	266			266.3		mg/L				0.1	17
Alkalinity	266			266.3		mg/L				0	17

GC/MS VOA

Analysis Batch: 387733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-1	TB-08-082516	Total/NA	Water	8260C SIM	
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	8260C SIM	
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	8260C SIM	
460-119270-4	RW-12(130-140)-082516	Total/NA	Water	8260C SIM	
460-119270-5	RW-8(204-214)-082516	Total/NA	Water	8260C SIM	
460-119270-6	RW-8(163-173)-082516	Total/NA	Water	8260C SIM	
460-119270-7	RW-13(100-120)-082616	Total/NA	Water	8260C SIM	
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	8260C SIM	
460-119270-9	Dup-05-082616	Total/NA	Water	8260C SIM	
460-119270-10	RW-10(185-195)-082616	Total/NA	Water	8260C SIM	
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	8260C SIM	
MB 460-387733/8	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-387733/4	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 460-387733/5	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 387955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-1	TB-08-082516	Total/NA	Water	8260C	
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	8260C	
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	8260C	
460-119270-4	RW-12(130-140)-082516	Total/NA	Water	8260C	
460-119270-5	RW-8(204-214)-082516	Total/NA	Water	8260C	
460-119270-6	RW-8(163-173)-082516	Total/NA	Water	8260C	
460-119270-7	RW-13(100-120)-082616	Total/NA	Water	8260C	
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	8260C	
460-119270-9	Dup-05-082616	Total/NA	Water	8260C	
460-119270-10	RW-10(185-195)-082616	Total/NA	Water	8260C	
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	8260C	
MB 460-387955/7	Method Blank	Total/NA	Water	8260C	
LCS 460-387955/3	Lab Control Sample	Total/NA	Water	8260C	
460-119372-B-7 MS	Matrix Spike	Total/NA	Water	8260C	
460-119372-B-7 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 387456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	3510C	
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	3510C	
460-119270-4	RW-12(130-140)-082516	Total/NA	Water	3510C	
460-119270-5	RW-8(204-214)-082516	Total/NA	Water	3510C	
460-119270-6	RW-8(163-173)-082516	Total/NA	Water	3510C	
460-119270-7	RW-13(100-120)-082616	Total/NA	Water	3510C	
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	3510C	
460-119270-9	Dup-05-082616	Total/NA	Water	3510C	
460-119270-10	RW-10(185-195)-082616	Total/NA	Water	3510C	
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	3510C	
MB 460-387456/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-387456/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-387456/3-A	Lab Control Sample	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 387456 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-387456/4-A	Lab Control Sample	Total/NA	Water	3510C	
460-119177-J-5-A MS	Matrix Spike	Total/NA	Water	3510C	
460-119177-K-5-A MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 388366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-387456/1-A	Method Blank	Total/NA	Water	8270D SIM	387456
LCS 460-387456/4-A	Lab Control Sample	Total/NA	Water	8270D SIM	387456

Analysis Batch: 388683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	8270D	387456
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	8270D	387456
460-119270-4	RW-12(130-140)-082516	Total/NA	Water	8270D	387456
460-119270-5	RW-8(204-214)-082516	Total/NA	Water	8270D	387456
460-119270-6	RW-8(163-173)-082516	Total/NA	Water	8270D	387456
460-119270-7	RW-13(100-120)-082616	Total/NA	Water	8270D	387456
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	8270D	387456
460-119270-9	Dup-05-082616	Total/NA	Water	8270D	387456
460-119270-10	RW-10(185-195)-082616	Total/NA	Water	8270D	387456
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	8270D	387456
MB 460-387456/1-A	Method Blank	Total/NA	Water	8270D	387456
LCS 460-387456/2-A	Lab Control Sample	Total/NA	Water	8270D	387456
LCS 460-387456/3-A	Lab Control Sample	Total/NA	Water	8270D	387456
460-119177-J-5-A MS	Matrix Spike	Total/NA	Water	8270D	387456
460-119177-K-5-A MSD	Matrix Spike Duplicate	Total/NA	Water	8270D	387456

Analysis Batch: 388728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	8270D SIM	387456
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	8270D SIM	387456
460-119270-4	RW-12(130-140)-082516	Total/NA	Water	8270D SIM	387456
460-119270-5	RW-8(204-214)-082516	Total/NA	Water	8270D SIM	387456
460-119270-6	RW-8(163-173)-082516	Total/NA	Water	8270D SIM	387456
460-119270-7	RW-13(100-120)-082616	Total/NA	Water	8270D SIM	387456
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	8270D SIM	387456
460-119270-9	Dup-05-082616	Total/NA	Water	8270D SIM	387456
460-119270-10	RW-10(185-195)-082616	Total/NA	Water	8270D SIM	387456
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	8270D SIM	387456

GC Semi VOA

Prep Batch: 387586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	3510C	
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	3510C	
460-119270-4	RW-12(130-140)-082516	Total/NA	Water	3510C	
460-119270-5	RW-8(204-214)-082516	Total/NA	Water	3510C	
460-119270-6	RW-8(163-173)-082516	Total/NA	Water	3510C	
460-119270-7	RW-13(100-120)-082616	Total/NA	Water	3510C	

GC Semi VOA (Continued)

Prep Batch: 387586 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	3510C	
460-119270-9	Dup-05-082616	Total/NA	Water	3510C	
460-119270-10	RW-10(185-195)-082616	Total/NA	Water	3510C	
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	3510C	
MB 460-387586/1-A	Method Blank	Total/NA	Water	3510C	
MB 460-387586/1-A - RA	Method Blank	Total/NA	Water	3510C	
LCS 460-387586/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-387586/2-A - RA	Lab Control Sample	Total/NA	Water	3510C	
460-119177-L-5-A MS	Matrix Spike	Total/NA	Water	3510C	
460-119177-L-5-B MSD	Matrix Spike Duplicate	Total/NA	Water	3510C	

Analysis Batch: 387810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	8082A	387586
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	8082A	387586
460-119270-4	RW-12(130-140)-082516	Total/NA	Water	8082A	387586
460-119270-5	RW-8(204-214)-082516	Total/NA	Water	8082A	387586
460-119270-6	RW-8(163-173)-082516	Total/NA	Water	8082A	387586
460-119270-7	RW-13(100-120)-082616	Total/NA	Water	8082A	387586
460-119270-9	Dup-05-082616	Total/NA	Water	8082A	387586
460-119270-10	RW-10(185-195)-082616	Total/NA	Water	8082A	387586
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	8082A	387586
MB 460-387586/1-A	Method Blank	Total/NA	Water	8082A	387586
LCS 460-387586/2-A	Lab Control Sample	Total/NA	Water	8082A	387586
460-119177-L-5-A MS	Matrix Spike	Total/NA	Water	8082A	387586
460-119177-L-5-B MSD	Matrix Spike Duplicate	Total/NA	Water	8082A	387586

Analysis Batch: 388284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	8082A	387586
MB 460-387586/1-A - RA	Method Blank	Total/NA	Water	8082A	387586
LCS 460-387586/2-A - RA	Lab Control Sample	Total/NA	Water	8082A	387586

HPLC/IC

Analysis Batch: 389346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	9056A	
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	9056A	
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	9056A	
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	9056A	
MB 460-389346/3	Method Blank	Total/NA	Water	9056A	
LCS 460-389346/44	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-389346/45	Lab Control Sample Dup	Total/NA	Water	9056A	
460-119177-E-5 MS	Matrix Spike	Total/NA	Water	9056A	
460-119177-E-5 MS - DL2	Matrix Spike	Total/NA	Water	9056A	
460-119177-E-5 MSD	Matrix Spike Duplicate	Total/NA	Water	9056A	
460-119177-E-5 MSD - DL2	Matrix Spike Duplicate	Total/NA	Water	9056A	
460-119177-E-5 DU	Duplicate	Total/NA	Water	9056A	
460-119177-E-5 DU - DL2	Duplicate	Total/NA	Water	9056A	

HPLC/IC (Continued)

Analysis Batch: 389772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-3 - DL	RW-13(71-91)-082516	Total/NA	Water	9056A	
460-119270-4 - DL	RW-12(130-140)-082516	Total/NA	Water	9056A	
460-119270-5 - DL	RW-8(204-214)-082516	Total/NA	Water	9056A	
460-119270-6 - DL	RW-8(163-173)-082516	Total/NA	Water	9056A	
460-119270-8 - DL	RW-13(150-170)-082616	Total/NA	Water	9056A	
460-119270-9 - DL	Dup-05-082616	Total/NA	Water	9056A	
460-119270-10 - DL	RW-10(185-195)-082616	Total/NA	Water	9056A	
460-119270-11 - DL	RW-10A(75-85)-082616	Total/NA	Water	9056A	
MB 460-389772/3	Method Blank	Total/NA	Water	9056A	
LCS 460-389772/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-389772/5	Lab Control Sample Dup	Total/NA	Water	9056A	
460-119489-B-4 MS	Matrix Spike	Total/NA	Water	9056A	
460-119489-B-4 MSD	Matrix Spike Duplicate	Total/NA	Water	9056A	
460-119489-B-4 DU	Duplicate	Total/NA	Water	9056A	

Metals

Prep Batch: 388129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	7470A	
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	7470A	
460-119270-4	RW-12(130-140)-082516	Total/NA	Water	7470A	
460-119270-5	RW-8(204-214)-082516	Total/NA	Water	7470A	
460-119270-6	RW-8(163-173)-082516	Total/NA	Water	7470A	
460-119270-7	RW-13(100-120)-082616	Total/NA	Water	7470A	
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	7470A	
460-119270-9	Dup-05-082616	Total/NA	Water	7470A	
MB 460-388129/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-388129/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-119189-E-9-A MS	Matrix Spike	Total/NA	Water	7470A	
460-119189-B-9-A DU	Duplicate	Total/NA	Water	7470A	

Analysis Batch: 388212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	7470A	388129
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	7470A	388129
460-119270-4	RW-12(130-140)-082516	Total/NA	Water	7470A	388129
460-119270-5	RW-8(204-214)-082516	Total/NA	Water	7470A	388129
460-119270-6	RW-8(163-173)-082516	Total/NA	Water	7470A	388129
460-119270-7	RW-13(100-120)-082616	Total/NA	Water	7470A	388129
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	7470A	388129
460-119270-9	Dup-05-082616	Total/NA	Water	7470A	388129
MB 460-388129/1-A	Method Blank	Total/NA	Water	7470A	388129
LCS 460-388129/2-A	Lab Control Sample	Total/NA	Water	7470A	388129
460-119189-E-9-A MS	Matrix Spike	Total/NA	Water	7470A	388129
460-119189-B-9-A DU	Duplicate	Total/NA	Water	7470A	388129

Prep Batch: 388629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	3010A	

Metals (Continued)

Prep Batch: 388629 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	3010A	
460-119270-4	RW-12(130-140)-082516	Total/NA	Water	3010A	
460-119270-5	RW-8(204-214)-082516	Total/NA	Water	3010A	
460-119270-6	RW-8(163-173)-082516	Total/NA	Water	3010A	
460-119270-7	RW-13(100-120)-082616	Total/NA	Water	3010A	
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	3010A	
460-119270-9	Dup-05-082616	Total/NA	Water	3010A	
460-119270-10	RW-10(185-195)-082616	Total/NA	Water	3010A	
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	3010A	
MB 460-388629/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-388629/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-119189-E-9-D MS ^2	Matrix Spike	Total/NA	Water	3010A	
460-119189-C-9-A DU ^2	Duplicate	Total/NA	Water	3010A	

Prep Batch: 388820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-10	RW-10(185-195)-082616	Total/NA	Water	7470A	
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	7470A	
MB 460-388820/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-388820/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-119333-E-3-F MS	Matrix Spike	Total/NA	Water	7470A	
460-119333-E-3-E DU	Duplicate	Total/NA	Water	7470A	

Analysis Batch: 388881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-10	RW-10(185-195)-082616	Total/NA	Water	7470A	388820
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	7470A	388820
MB 460-388820/1-A	Method Blank	Total/NA	Water	7470A	388820
LCS 460-388820/2-A	Lab Control Sample	Total/NA	Water	7470A	388820
460-119333-E-3-F MS	Matrix Spike	Total/NA	Water	7470A	388820
460-119333-E-3-E DU	Duplicate	Total/NA	Water	7470A	388820

Filtration Batch: 388897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Dissolved	Water	FILTRATION	
460-119270-3	RW-13(71-91)-082516	Dissolved	Water	FILTRATION	
460-119270-4	RW-12(130-140)-082516	Dissolved	Water	FILTRATION	
460-119270-5	RW-8(204-214)-082516	Dissolved	Water	FILTRATION	
460-119270-6	RW-8(163-173)-082516	Dissolved	Water	FILTRATION	
460-119270-8	RW-13(150-170)-082616	Dissolved	Water	FILTRATION	
460-119270-9	Dup-05-082616	Dissolved	Water	FILTRATION	
460-119270-10	RW-10(185-195)-082616	Dissolved	Water	FILTRATION	
460-119270-11	RW-10A(75-85)-082616	Dissolved	Water	FILTRATION	
460-119333-F-3-L MS	Matrix Spike	Dissolved	Water	FILTRATION	
460-119333-F-3-K DU	Duplicate	Dissolved	Water	FILTRATION	

Filtration Batch: 389010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Dissolved	Water	FILTRATION	
460-119270-3	RW-13(71-91)-082516	Dissolved	Water	FILTRATION	
460-119270-4	RW-12(130-140)-082516	Dissolved	Water	FILTRATION	

Metals (Continued)

Filtration Batch: 389010 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-5	RW-8(204-214)-082516	Dissolved	Water	FILTRATION	
460-119270-6	RW-8(163-173)-082516	Dissolved	Water	FILTRATION	
460-119270-8	RW-13(150-170)-082616	Dissolved	Water	FILTRATION	
460-119270-9	Dup-05-082616	Dissolved	Water	FILTRATION	
460-119270-10	RW-10(185-195)-082616	Dissolved	Water	FILTRATION	
460-119270-11	RW-10A(75-85)-082616	Dissolved	Water	FILTRATION	
MB 460-389010/1-B ^2	Method Blank	Dissolved	Water	FILTRATION	
460-119333-F-3-I MS ^2	Matrix Spike	Dissolved	Water	FILTRATION	
460-119333-F-3-H DU ^2	Duplicate	Dissolved	Water	FILTRATION	

Prep Batch: 389017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Dissolved	Water	3010A	389010
460-119270-3	RW-13(71-91)-082516	Dissolved	Water	3010A	389010
460-119270-4	RW-12(130-140)-082516	Dissolved	Water	3010A	389010
460-119270-5	RW-8(204-214)-082516	Dissolved	Water	3010A	389010
460-119270-6	RW-8(163-173)-082516	Dissolved	Water	3010A	389010
460-119270-8	RW-13(150-170)-082616	Dissolved	Water	3010A	389010
460-119270-9	Dup-05-082616	Dissolved	Water	3010A	389010
460-119270-10	RW-10(185-195)-082616	Dissolved	Water	3010A	389010
460-119270-11	RW-10A(75-85)-082616	Dissolved	Water	3010A	389010
MB 460-389010/1-B ^2	Method Blank	Dissolved	Water	3010A	389010
LCS 460-389017/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-119333-F-3-I MS ^2	Matrix Spike	Dissolved	Water	3010A	389010
460-119333-F-3-H DU ^2	Duplicate	Dissolved	Water	3010A	389010

Prep Batch: 389021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Dissolved	Water	7470A	388897
460-119270-3	RW-13(71-91)-082516	Dissolved	Water	7470A	388897
460-119270-4	RW-12(130-140)-082516	Dissolved	Water	7470A	388897
460-119270-5	RW-8(204-214)-082516	Dissolved	Water	7470A	388897
460-119270-6	RW-8(163-173)-082516	Dissolved	Water	7470A	388897
460-119270-8	RW-13(150-170)-082616	Dissolved	Water	7470A	388897
460-119270-9	Dup-05-082616	Dissolved	Water	7470A	388897
460-119270-10	RW-10(185-195)-082616	Dissolved	Water	7470A	388897
460-119270-11	RW-10A(75-85)-082616	Dissolved	Water	7470A	388897
MB 460-389021/4-A	Method Blank	Total/NA	Water	7470A	
LCS 460-389021/5-A	Lab Control Sample	Total/NA	Water	7470A	
460-119333-F-3-L MS	Matrix Spike	Dissolved	Water	7470A	388897
460-119333-F-3-K DU	Duplicate	Dissolved	Water	7470A	388897

Analysis Batch: 389094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Dissolved	Water	7470A	389021
460-119270-3	RW-13(71-91)-082516	Dissolved	Water	7470A	389021
460-119270-4	RW-12(130-140)-082516	Dissolved	Water	7470A	389021
460-119270-5	RW-8(204-214)-082516	Dissolved	Water	7470A	389021
460-119270-6	RW-8(163-173)-082516	Dissolved	Water	7470A	389021
460-119270-8	RW-13(150-170)-082616	Dissolved	Water	7470A	389021
460-119270-9	Dup-05-082616	Dissolved	Water	7470A	389021

Metals (Continued)

Analysis Batch: 389094 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-10	RW-10(185-195)-082616	Dissolved	Water	7470A	389021
460-119270-11	RW-10A(75-85)-082616	Dissolved	Water	7470A	389021
MB 460-389021/4-A	Method Blank	Total/NA	Water	7470A	389021
LCS 460-389021/5-A	Lab Control Sample	Total/NA	Water	7470A	389021
460-119333-F-3-L MS	Matrix Spike	Dissolved	Water	7470A	389021
460-119333-F-3-K DU	Duplicate	Dissolved	Water	7470A	389021

Analysis Batch: 389242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Dissolved	Water	6020A	389017
460-119270-3	RW-13(71-91)-082516	Dissolved	Water	6020A	389017
460-119270-4	RW-12(130-140)-082516	Dissolved	Water	6020A	389017
460-119270-5	RW-8(204-214)-082516	Dissolved	Water	6020A	389017
460-119270-6	RW-8(163-173)-082516	Dissolved	Water	6020A	389017
460-119270-8	RW-13(150-170)-082616	Dissolved	Water	6020A	389017
460-119270-9	Dup-05-082616	Dissolved	Water	6020A	389017
460-119270-10	RW-10(185-195)-082616	Dissolved	Water	6020A	389017
460-119270-11	RW-10A(75-85)-082616	Dissolved	Water	6020A	389017
MB 460-389010/1-B ^2	Method Blank	Dissolved	Water	6020A	389017
LCS 460-389017/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	389017
460-119333-F-3-I MS ^2	Matrix Spike	Dissolved	Water	6020A	389017
460-119333-F-3-H DU ^2	Duplicate	Dissolved	Water	6020A	389017

Analysis Batch: 389269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	6020A	388629
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	6020A	388629
460-119270-4	RW-12(130-140)-082516	Total/NA	Water	6020A	388629
460-119270-5	RW-8(204-214)-082516	Total/NA	Water	6020A	388629
460-119270-6	RW-8(163-173)-082516	Total/NA	Water	6020A	388629
460-119270-7	RW-13(100-120)-082616	Total/NA	Water	6020A	388629
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	6020A	388629
460-119270-9	Dup-05-082616	Total/NA	Water	6020A	388629
460-119270-10	RW-10(185-195)-082616	Total/NA	Water	6020A	388629
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	6020A	388629
MB 460-388629/1-A ^2	Method Blank	Total/NA	Water	6020A	388629
LCS 460-388629/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	388629
460-119189-E-9-D MS ^2	Matrix Spike	Total/NA	Water	6020A	388629
460-119189-C-9-A DU ^2	Duplicate	Total/NA	Water	6020A	388629

Analysis Batch: 389580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Dissolved	Water	6020A	389017
460-119270-3	RW-13(71-91)-082516	Dissolved	Water	6020A	389017
460-119270-4	RW-12(130-140)-082516	Dissolved	Water	6020A	389017
460-119270-5	RW-8(204-214)-082516	Dissolved	Water	6020A	389017
460-119270-6	RW-8(163-173)-082516	Dissolved	Water	6020A	389017
460-119270-8	RW-13(150-170)-082616	Dissolved	Water	6020A	389017
460-119270-9	Dup-05-082616	Dissolved	Water	6020A	389017
460-119270-10	RW-10(185-195)-082616	Dissolved	Water	6020A	389017
460-119270-11	RW-10A(75-85)-082616	Dissolved	Water	6020A	389017

Metals (Continued)

Analysis Batch: 389580 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-389010/1-B ^2	Method Blank	Dissolved	Water	6020A	389017
LCS 460-389017/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	389017
460-119333-F-3-I MS ^2	Matrix Spike	Dissolved	Water	6020A	389017
460-119333-F-3-H DU ^2	Duplicate	Dissolved	Water	6020A	389017

Analysis Batch: 389608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	6020A	388629
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	6020A	388629
460-119270-4	RW-12(130-140)-082516	Total/NA	Water	6020A	388629
460-119270-5	RW-8(204-214)-082516	Total/NA	Water	6020A	388629
460-119270-6	RW-8(163-173)-082516	Total/NA	Water	6020A	388629
460-119270-7	RW-13(100-120)-082616	Total/NA	Water	6020A	388629
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	6020A	388629
460-119270-9	Dup-05-082616	Total/NA	Water	6020A	388629
460-119270-10	RW-10(185-195)-082616	Total/NA	Water	6020A	388629
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	6020A	388629
MB 460-388629/1-A ^2	Method Blank	Total/NA	Water	6020A	388629
LCS 460-388629/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	388629
460-119189-E-9-D MS ^2	Matrix Spike	Total/NA	Water	6020A	388629
460-119189-C-9-A DU ^2	Duplicate	Total/NA	Water	6020A	388629

General Chemistry

Prep Batch: 389013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	9012B	
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	9012B	
460-119270-4	RW-12(130-140)-082516	Total/NA	Water	9012B	
460-119270-5	RW-8(204-214)-082516	Total/NA	Water	9012B	
460-119270-6	RW-8(163-173)-082516	Total/NA	Water	9012B	
460-119270-7	RW-13(100-120)-082616	Total/NA	Water	9012B	
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	9012B	
460-119270-9	Dup-05-082616	Total/NA	Water	9012B	
460-119270-10	RW-10(185-195)-082616	Total/NA	Water	9012B	
MB 460-389013/1-A	Method Blank	Total/NA	Water	9012B	
HLCS 460-389013/3-A	Lab Control Sample	Total/NA	Water	9012B	
LLCS 460-389013/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-119270-2 MS	RW-4A(62-72)-082516	Total/NA	Water	9012B	
460-119270-2 MSD	RW-4A(62-72)-082516	Total/NA	Water	9012B	

Analysis Batch: 389070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	9012B	389013
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	9012B	389013
460-119270-4	RW-12(130-140)-082516	Total/NA	Water	9012B	389013
460-119270-5	RW-8(204-214)-082516	Total/NA	Water	9012B	389013
460-119270-6	RW-8(163-173)-082516	Total/NA	Water	9012B	389013
460-119270-7	RW-13(100-120)-082616	Total/NA	Water	9012B	389013
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	9012B	389013

General Chemistry (Continued)

Analysis Batch: 389070 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-9	Dup-05-082616	Total/NA	Water	9012B	389013
460-119270-10	RW-10(185-195)-082616	Total/NA	Water	9012B	389013
MB 460-389013/1-A	Method Blank	Total/NA	Water	9012B	389013
HLCS 460-389013/3-A	Lab Control Sample	Total/NA	Water	9012B	389013
LLCS 460-389013/2-A	Lab Control Sample	Total/NA	Water	9012B	389013
460-119270-2 MS	RW-4A(62-72)-082516	Total/NA	Water	9012B	389013
460-119270-2 MSD	RW-4A(62-72)-082516	Total/NA	Water	9012B	389013

Prep Batch: 389074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	9012B	
MB 460-389074/1-A	Method Blank	Total/NA	Water	9012B	
HLCS 460-389074/3-A	Lab Control Sample	Total/NA	Water	9012B	
LLCS 460-389074/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-119489-F-4-B MS	Matrix Spike	Total/NA	Water	9012B	
460-119489-F-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	9012B	

Analysis Batch: 389260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	9012B	389074
MB 460-389074/1-A	Method Blank	Total/NA	Water	9012B	389074
HLCS 460-389074/3-A	Lab Control Sample	Total/NA	Water	9012B	389074
LLCS 460-389074/2-A	Lab Control Sample	Total/NA	Water	9012B	389074
460-119489-F-4-B MS	Matrix Spike	Total/NA	Water	9012B	389074
460-119489-F-4-C MSD	Matrix Spike Duplicate	Total/NA	Water	9012B	389074

Analysis Batch: 389331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119270-2	RW-4A(62-72)-082516	Total/NA	Water	SM 2320B	
460-119270-3	RW-13(71-91)-082516	Total/NA	Water	SM 2320B	
460-119270-4	RW-12(130-140)-082516	Total/NA	Water	SM 2320B	
460-119270-5	RW-8(204-214)-082516	Total/NA	Water	SM 2320B	
460-119270-6	RW-8(163-173)-082516	Total/NA	Water	SM 2320B	
460-119270-8	RW-13(150-170)-082616	Total/NA	Water	SM 2320B	
460-119270-9	Dup-05-082616	Total/NA	Water	SM 2320B	
460-119270-10	RW-10(185-195)-082616	Total/NA	Water	SM 2320B	
460-119270-11	RW-10A(75-85)-082616	Total/NA	Water	SM 2320B	
MB 460-389331/1	Method Blank	Total/NA	Water	SM 2320B	
LCSSRM 460-389331/2	Lab Control Sample	Total/NA	Water	SM 2320B	
460-119156-J-6 DU	Duplicate	Total/NA	Water	SM 2320B	

Client Sample ID: TB-08-082516

Lab Sample ID: 460-119270-1

Date Collected: 08/25/16 00:00

Matrix: Water

Date Received: 08/26/16 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387955	09/01/16 03:40	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 01:04	DAS	TAL EDI

Client Sample ID: RW-4A(62-72)-082516

Lab Sample ID: 460-119270-2

Date Collected: 08/25/16 08:10

Matrix: Water

Date Received: 08/26/16 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387955	09/01/16 04:06	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 05:14	DAS	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 12:44	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388728	09/06/16 15:41	CAZ	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 14:07	JHP	TAL EDI
Total/NA	Analysis	9056A		1	389346	09/09/16 02:48	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389242	09/07/16 15:50	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389580	09/09/16 13:29	MDC	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389269	09/08/16 06:48	VAD	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389608	09/09/16 00:41	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			388897	09/06/16 17:16	RBS	TAL EDI
Dissolved	Prep	7470A			389021	09/07/16 11:41	RBS	TAL EDI
Dissolved	Analysis	7470A		1	389094	09/07/16 14:54	RBS	TAL EDI
Total/NA	Prep	7470A			388129	09/01/16 10:15	RBS	TAL EDI
Total/NA	Analysis	7470A		1	388212	09/01/16 13:44	RBS	TAL EDI
Total/NA	Prep	9012B			389013	09/07/16 11:08	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389070	09/07/16 14:27	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	389331	09/08/16 15:18	RAK	TAL EDI

Client Sample ID: RW-13(71-91)-082516

Lab Sample ID: 460-119270-3

Date Collected: 08/25/16 09:45

Matrix: Water

Date Received: 08/26/16 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387955	09/01/16 04:32	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 05:39	DAS	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 13:04	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388728	09/06/16 16:10	CAZ	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 13:50	JHP	TAL EDI
Total/NA	Analysis	9056A		1	389346	09/09/16 04:56	CDC	TAL EDI
Total/NA	Analysis	9056A	DL	200	389772	09/11/16 03:46	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389242	09/07/16 15:55	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389580	09/09/16 13:34	MDC	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389269	09/08/16 06:54	VAD	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389608	09/09/16 00:47	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			388897	09/06/16 17:16	RBS	TAL EDI
Dissolved	Prep	7470A			389021	09/07/16 11:41	RBS	TAL EDI
Dissolved	Analysis	7470A		1	389094	09/07/16 15:08	RBS	TAL EDI
Total/NA	Prep	7470A			388129	09/01/16 10:15	RBS	TAL EDI
Total/NA	Analysis	7470A		1	388212	09/01/16 13:46	RBS	TAL EDI
Total/NA	Prep	9012B			389013	09/07/16 11:08	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389070	09/07/16 14:29	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	389331	09/08/16 15:18	RAK	TAL EDI

Client Sample ID: RW-12(130-140)-082516

Lab Sample ID: 460-119270-4

Date Collected: 08/25/16 12:25

Matrix: Water

Date Received: 08/26/16 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387955	09/01/16 04:58	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 06:04	DAS	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 13:23	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388728	09/06/16 16:40	CAZ	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 13:32	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	100	389772	09/11/16 04:04	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389242	09/07/16 16:01	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389580	09/09/16 13:40	MDC	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-12(130-140)-082516

Lab Sample ID: 460-119270-4

Date Collected: 08/25/16 12:25

Matrix: Water

Date Received: 08/26/16 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6020A		2	389269	09/08/16 07:00	VAD	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389608	09/09/16 00:53	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			388897	09/06/16 17:16	RBS	TAL EDI
Dissolved	Prep	7470A			389021	09/07/16 11:41	RBS	TAL EDI
Dissolved	Analysis	7470A		1	389094	09/07/16 15:10	RBS	TAL EDI
Total/NA	Prep	7470A			388129	09/01/16 10:15	RBS	TAL EDI
Total/NA	Analysis	7470A		1	388212	09/01/16 13:48	RBS	TAL EDI
Total/NA	Prep	9012B			389013	09/07/16 11:08	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389070	09/07/16 14:30	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	389331	09/08/16 15:18	RAK	TAL EDI

Client Sample ID: RW-8(204-214)-082516

Lab Sample ID: 460-119270-5

Date Collected: 08/25/16 13:45

Matrix: Water

Date Received: 08/26/16 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387955	09/01/16 05:24	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 06:29	DAS	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 13:43	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388728	09/06/16 17:09	CAZ	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 13:14	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	100	389772	09/11/16 04:23	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389242	09/07/16 16:07	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389580	09/09/16 13:45	MDC	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389269	09/08/16 07:11	VAD	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389608	09/09/16 00:59	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			388897	09/06/16 17:16	RBS	TAL EDI
Dissolved	Prep	7470A			389021	09/07/16 11:41	RBS	TAL EDI
Dissolved	Analysis	7470A		1	389094	09/07/16 15:12	RBS	TAL EDI
Total/NA	Prep	7470A			388129	09/01/16 10:15	RBS	TAL EDI
Total/NA	Analysis	7470A		1	388212	09/01/16 13:50	RBS	TAL EDI
Total/NA	Prep	9012B			389013	09/07/16 11:08	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389070	09/07/16 14:31	HTV	TAL EDI

Client Sample ID: RW-8(204-214)-082516

Lab Sample ID: 460-119270-5

Date Collected: 08/25/16 13:45

Matrix: Water

Date Received: 08/26/16 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2320B		1	389331	09/08/16 15:18	RAK	TAL EDI

Client Sample ID: RW-8(163-173)-082516

Lab Sample ID: 460-119270-6

Date Collected: 08/25/16 16:05

Matrix: Water

Date Received: 08/26/16 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387955	09/01/16 05:49	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 06:54	DAS	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 14:03	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388728	09/06/16 17:38	CAZ	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 12:56	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	100	389772	09/11/16 04:41	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389242	09/07/16 16:12	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389580	09/09/16 13:51	MDC	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389269	09/08/16 07:35	VAD	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389608	09/09/16 01:05	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			388897	09/06/16 17:16	RBS	TAL EDI
Dissolved	Prep	7470A			389021	09/07/16 11:41	RBS	TAL EDI
Dissolved	Analysis	7470A		1	389094	09/07/16 15:14	RBS	TAL EDI
Total/NA	Prep	7470A			388129	09/01/16 10:15	RBS	TAL EDI
Total/NA	Analysis	7470A		1	388212	09/01/16 13:56	RBS	TAL EDI
Total/NA	Prep	9012B			389013	09/07/16 11:08	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389070	09/07/16 14:32	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	389331	09/08/16 15:18	RAK	TAL EDI

Client Sample ID: RW-13(100-120)-082616

Lab Sample ID: 460-119270-7

Date Collected: 08/26/16 07:45

Matrix: Water

Date Received: 08/26/16 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387955	09/01/16 06:15	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 07:19	DAS	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI

Client Sample ID: RW-13(100-120)-082616

Lab Sample ID: 460-119270-7

Date Collected: 08/26/16 07:45

Matrix: Water

Date Received: 08/26/16 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D		1	388683	09/05/16 14:22	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388728	09/06/16 18:08	CAZ	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 12:38	JHP	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389269	09/08/16 07:40	VAD	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389608	09/09/16 01:10	VAD	TAL EDI
Total/NA	Prep	7470A			388129	09/01/16 10:15	RBS	TAL EDI
Total/NA	Analysis	7470A		1	388212	09/01/16 13:57	RBS	TAL EDI
Total/NA	Prep	9012B			389013	09/07/16 11:08	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389070	09/07/16 14:33	HTV	TAL EDI

Client Sample ID: RW-13(150-170)-082616

Lab Sample ID: 460-119270-8

Date Collected: 08/26/16 08:25

Matrix: Water

Date Received: 08/26/16 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387955	09/01/16 06:41	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 07:44	DAS	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 14:42	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388728	09/06/16 18:37	CAZ	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	388284	09/02/16 04:55	JHP	TAL EDI
Total/NA	Analysis	9056A		10	389346	09/09/16 06:09	CDC	TAL EDI
Total/NA	Analysis	9056A	DL	100	389772	09/11/16 04:59	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389242	09/07/16 16:18	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389580	09/09/16 13:57	MDC	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389269	09/08/16 07:46	VAD	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389608	09/09/16 01:16	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			388897	09/06/16 17:16	RBS	TAL EDI
Dissolved	Prep	7470A			389021	09/07/16 11:41	RBS	TAL EDI
Dissolved	Analysis	7470A		1	389094	09/07/16 15:16	RBS	TAL EDI
Total/NA	Prep	7470A			388129	09/01/16 10:15	RBS	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-13(150-170)-082616

Date Collected: 08/26/16 08:25
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	388212	09/01/16 13:59	RBS	TAL EDI
Total/NA	Prep	9012B			389013	09/07/16 11:08	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389070	09/07/16 14:37	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	389331	09/08/16 15:18	RAK	TAL EDI

Client Sample ID: Dup-05-082616

Date Collected: 08/26/16 12:00
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387955	09/01/16 07:07	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 08:09	DAS	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 15:02	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388728	09/06/16 19:06	CAZ	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 11:51	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	100	389772	09/11/16 05:17	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389242	09/07/16 16:24	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389580	09/09/16 14:02	MDC	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389269	09/08/16 07:52	VAD	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389608	09/09/16 01:22	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			388897	09/06/16 17:16	RBS	TAL EDI
Dissolved	Prep	7470A			389021	09/07/16 11:41	RBS	TAL EDI
Dissolved	Analysis	7470A		1	389094	09/07/16 15:18	RBS	TAL EDI
Total/NA	Prep	7470A			388129	09/01/16 10:15	RBS	TAL EDI
Total/NA	Analysis	7470A		1	388212	09/01/16 14:01	RBS	TAL EDI
Total/NA	Prep	9012B			389013	09/07/16 11:08	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389070	09/07/16 14:38	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	389331	09/08/16 15:18	RAK	TAL EDI

Client Sample ID: RW-10(185-195)-082616

Lab Sample ID: 460-119270-10

Date Collected: 08/26/16 13:05

Matrix: Water

Date Received: 08/26/16 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387955	09/01/16 07:33	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 08:34	DAS	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 15:21	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388728	09/06/16 19:36	CAZ	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 11:33	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	100	389772	09/11/16 05:36	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389242	09/07/16 16:29	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389580	09/09/16 14:08	MDC	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389269	09/08/16 07:58	VAD	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389608	09/09/16 01:34	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			388897	09/06/16 17:16	RBS	TAL EDI
Dissolved	Prep	7470A			389021	09/07/16 11:41	RBS	TAL EDI
Dissolved	Analysis	7470A		1	389094	09/07/16 15:19	RBS	TAL EDI
Total/NA	Prep	7470A			388820	09/06/16 11:43	RBS	TAL EDI
Total/NA	Analysis	7470A		1	388881	09/06/16 14:08	RBS	TAL EDI
Total/NA	Prep	9012B			389013	09/07/16 11:08	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389070	09/07/16 14:39	HTV	TAL EDI
Total/NA	Analysis	SM 2320B		1	389331	09/08/16 15:18	RAK	TAL EDI

Client Sample ID: RW-10A(75-85)-082616

Lab Sample ID: 460-119270-11

Date Collected: 08/26/16 14:15

Matrix: Water

Date Received: 08/26/16 17:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	387955	09/01/16 07:59	EMM	TAL EDI
Total/NA	Analysis	8260C SIM		1	387733	08/31/16 08:59	DAS	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388683	09/05/16 15:41	MMC	TAL EDI
Total/NA	Prep	3510C			387456	08/29/16 14:39	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388728	09/06/16 20:05	CAZ	TAL EDI
Total/NA	Prep	3510C			387586	08/30/16 08:03	HAW	TAL EDI
Total/NA	Analysis	8082A		1	387810	08/31/16 11:15	JHP	TAL EDI
Total/NA	Analysis	9056A		10	389346	09/09/16 07:04	CDC	TAL EDI
Total/NA	Analysis	9056A	DL	100	389772	09/11/16 05:54	CDC	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Client Sample ID: RW-10A(75-85)-082616

Date Collected: 08/26/16 14:15
Date Received: 08/26/16 17:40

Lab Sample ID: 460-119270-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389242	09/07/16 16:35	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389017	09/07/16 11:28	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389580	09/09/16 14:13	MDC	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389269	09/08/16 08:04	VAD	TAL EDI
Total/NA	Prep	3010A			388629	09/03/16 19:37	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389608	09/09/16 01:57	VAD	TAL EDI
Dissolved	Filtration	FILTRATION			388897	09/06/16 17:16	RBS	TAL EDI
Dissolved	Prep	7470A			389021	09/07/16 11:41	RBS	TAL EDI
Dissolved	Analysis	7470A		1	389094	09/07/16 15:21	RBS	TAL EDI
Total/NA	Prep	7470A			388820	09/06/16 11:43	RBS	TAL EDI
Total/NA	Analysis	7470A		1	388881	09/06/16 14:10	RBS	TAL EDI
Total/NA	Prep	9012B			389074	09/07/16 15:17	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389260	09/08/16 10:11	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	389331	09/08/16 15:18	RAK	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Certification Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Laboratory: TestAmerica Edison

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New Jersey	NELAP	2	12028	06-30-17

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,4-Trichlorobenzene
8260C SIM		Water	1,2,3-Trichloropropane
8260C SIM		Water	1,2-Dibromo-3-Chloropropane
8260C SIM		Water	Ethylene Dibromide
8270D SIM	3510C	Water	Bis(2-chloroethyl)ether
9056A		Water	Chloride
9056A		Water	Sulfate

Method Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
9056A	Anions, Ion Chromatography	SW846	TAL EDI
6020A	Metals (ICP/MS)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
9012B	Cyanide, Total andor Amenable	SW846	TAL EDI
SM 2320B	Alkalinity	SM	TAL EDI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119270-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-119270-1	TB-08-082516	Water	08/25/16 00:00	08/26/16 17:40
460-119270-2	RW-4A(62-72)-082516	Water	08/25/16 08:10	08/26/16 17:40
460-119270-3	RW-13(71-91)-082516	Water	08/25/16 09:45	08/26/16 17:40
460-119270-4	RW-12(130-140)-082516	Water	08/25/16 12:25	08/26/16 17:40
460-119270-5	RW-8(204-214)-082516	Water	08/25/16 13:45	08/26/16 17:40
460-119270-6	RW-8(163-173)-082516	Water	08/25/16 16:05	08/26/16 17:40
460-119270-7	RW-13(100-120)-082616	Water	08/26/16 07:45	08/26/16 17:40
460-119270-8	RW-13(150-170)-082616	Water	08/26/16 08:25	08/26/16 17:40
460-119270-9	Dup-05-082616	Water	08/26/16 12:00	08/26/16 17:40
460-119270-10	RW-10(185-195)-082616	Water	08/26/16 13:05	08/26/16 17:40
460-119270-11	RW-10A(75-85)-082616	Water	08/26/16 14:15	08/26/16 17:40

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777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

460-119270 Chain of Custody

CHAIN OF CUSTODY REQUEST

Page 1 of 2

Name (for report and invoice): Tim Roeper	Samplers Name (Printed): Robert Lastaberry	Site/Project Identification: Ford - Rhinewood
Company: Cornerstone Environmental Group	P. O. #: 140802-015	State (Location of site): NJ: X NY: Other:
		Regulatory Program: DKQP:
Address: 100 Crystal Run Rd, Suite 108	Analysis Turnaround Time: Standard X	
City: Middletown State: NY 10941	Rush Charges Authorized For: 2 Week 1 Week Other	
Phone: 845 695 0200 Fax:		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

LAB USE ONLY
Project No:
Job No: 119270

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + 6 TICs 8260B	TCL SVOC + 6 TICs 8270C	TAL Metals, Total + Filtered, 6010B/7470A	PCB's 8082	4 Alkalinity, Total as CaCO3, 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	Total TAL Metals	Sample Numbers
TB-08-082616	8/26/16	—	BW	3	✓									-1
RW-4A(62-72)-082516	8/25/16	08:10	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-2
RW-13(71-91)-082516	8/25/16	09:45	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-3
RW-12(130-140)-082516	8/25/16	12:25	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-4
RW-8(204-214)-082516	8/25/16	13:45	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-5
RW-8(163-173)-082516	8/25/16	16:05	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-6
RW-13(100-120)-082616	8/26/16	07:45	GW	9	✓	✓		✓				✓	✓	-7
RW-13(150-170)-082616	8/26/16	08:25	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-8
DUP-05-082616	8/26/16	12:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-9
RW-10(185-195)-082616	8/26/16	13:05	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-10

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other _____, 7 = Other _____

Soil:
Water:

Special Instructions Do not report 1,4 Dioxane for VOCs + SVOCs

Water Metals Filtered (Yes/No)? No

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/26/16 1545	1)	TA
Relinquished by 2)	Company TA	Date / Time 8/26/16 17:40	Received by 2)	Company TA GC
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

(1) 2-8 (2) 3-4
(3) 3-6 (4) 1-9

RBT AVG

9/12/2016

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

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CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice): Tim Roeper	Samplers Name (Printed): Robert Lautenberg	Site/Project Identification: Ford - Ringwood
Company: Cornerstone Environmental Group	P. O. #: 140802-015	State (Location of site): NJ: ☒ NY: ☐ Other:
		Regulatory Program: DKQP: ☐
Address: 100 Crystal Run Rd, Suite 106	Analysis Turnaround Time: Standard ☒	
City: Middletown State: NY 10941	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone: 845 695 0200 Fax:		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOCs + TICs 8260B	TCL SVOCs + TICs 8270C	TAL Metals, Total and Trivalent Chromium	PCBs	Alkalinity, Total as CaCO3, SM2320B	Chloride 300.0/9056	Sulfate 300.0/9056	Cyanide	Sample Numbers
RW-10A (75-85)-082616	8/26/16	1415	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-11

LAB USE ONLY
Project No:
Job No: 119770

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other _____, 7 = Other _____
Soil: Water:

Special Instructions: Do not report 1,4 Dioxane for VOC's + SVOC's
Water Metals Filtered (Yes/No)? No

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/26/16 1515	1)	TA
2)	TA	8/26/16 1700	2)	TA 60
3)			3)	
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

Page 1 of 2

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 119270

Number of Coolers: 4 IR Gun # 7

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	2.2°C	°C	Cooler #4:	1.9°C	°C	Cooler #7:	°C	°C
Cooler #2:	3.6°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	3.4°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
2				<2								>12			
3				*<2								>12			
4				<2								>12			
5				<2								>12			
6				<2								>12			
7				<2								>12			
8				<2								>12			
9				<2								>12			
10				<2								>12			
11				<2								>12			

If pH adjustments are required record the information below:

Sample No(s). adjusted: N/A

Preservative Name/Conc.: N/A Volume of Preservative used (ml): N/A

Lot # of Preservative(s): N/A Expiration Date: N/A

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

**Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: [signature] Date: 8/26/16

EDS-WI-038, Rev 4, 06/09/2014

9/12/2016

Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 460-119270-1

Login Number: 119270
List Number: 1
Creator: Rivera, Kenneth

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8°C, 3.6°C, 3.4°C, 1.9°C IR #7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

TestAmerica Job ID: 460-119489-1
Client Project/Site: FORD Ringwood Mines E203361

For:
Cornerstone Environmental Group, LLC
100 Crystal Run Road
Suite 101
Middletown, New York 10941

Attn: Tim Roeper

Authorized for release by:
9/14/2016 3:44:34 PM
Cynthia Romero, Project Management Assistant I
cynthia.romero@testamericainc.com

Designee for

Marie Meidhof, Project Manager II
(732)549-3900
marie.meidhof@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	This flag indicates the presumptive evidence of a compound.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	This flag indicates the presumptive evidence of a compound.

GC Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
F1	MS and/or MSD Recovery is outside acceptance limits.
E	Result exceeded calibration range.

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD Recovery is outside acceptance limits.
*	LCS or LCSD is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 460-119489-1

Laboratory: TestAmerica Edison

Narrative

CASE NARRATIVE

Client: Cornerstone Environmental Group, LLC

Project: FORD Ringwood Mines E203361

Report Number: 460-119489-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 8/30/2016 7:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.0º C, 1.2º C and 1.6º C.

Receipt Exceptions

Limited sample volume was provided for the following sample for the SVOC analysis: RW-9(206-216)-083016 (460-119489-8). 1 container received for SVOC.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS DKQP AQUEOUS

Samples TB-09-082916 (460-119489-1), FB-05-082916 (460-119489-2), RW-14S(135-155)-082916 (460-119489-3), RW-14D(175-185) -082916 (460-119489-4), RW-10A(51-61)-082916 (460-119489-5), RW-10S(120-130)-082916 (460-119489-6), RW-9A(85-95)-083016 (460-119489-7) and RW-9(206-216)-083016 (460-119489-8) were analyzed for Volatile organic compounds DKQP Aqueous in accordance with EPA SW-846 Methods 8260C DKQP. The samples were analyzed on 09/02/2016.

The continuing calibration verification (CCV) associated with batch 460-388349 recovered above the upper control limit for Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Bromoform failed the recovery criteria low for the matrix spike (MS) and matrix spike duplicate (MSD) of sample RW-14D(175-185) -082916MS (460-119489-4) in batch 460-388349.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

Job ID: 460-119489-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

No other difficulties were encountered during the Volatile organic compounds DKQP Aqueous analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS) DKQP

Samples FB-05-082916 (460-119489-2), RW-14S(135-155)-082916 (460-119489-3), RW-14D(175-185)-082916 (460-119489-4), RW-10A(51-61)-082916 (460-119489-5), RW-10S(120-130)-082916 (460-119489-6), RW-9A(85-95)-083016 (460-119489-7) and RW-9(206-216)-083016 (460-119489-8) were analyzed for Semivolatile organic compounds (GC/MS) DKQP in accordance with EPA SW-846 Method 8270D DKQP. The samples were prepared on 09/02/2016 and analyzed on 09/06/2016.

The continuing calibration verification (CCV) analyzed in batch 460-388875 was outside the method criteria for the following analyte(s): 1,1'-Biphenyl, Hexachlorocyclopentadiene, Caprolactam and Atrazine. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for five analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 460-388379 had four analytes (Naphthalene, 2-Methylnaphthalene, 2-Methylphenol and Hexachlorobutadiene) outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

The laboratory control sample (LCS) for preparation batch 460-388379 and analytical batch 460-388720 recovered outside control limits for the following analyte: Caprolactam. This analyte was not detected in the associated samples; therefore, the data have been reported.

The following laboratory control sample (LCS) associated with batch 460-388379 contained one acid/base surrogate outside acceptance limits:(LCS 460-388379/3-A). The laboratory’s SOP allows one acid and/or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. Phenol-d5 (Surr) failed the surrogate recovery criteria low for LCS 460-388379/3-A. Method(s) 8270D: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for five analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 460-388379 had four analytes (Naphthalene, 2-Methylnaphthalene, 2-Methylphenol and Hexachlorobutadiene) outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

The laboratory control sample (LCS) for preparation batch 460-388379 and analytical batch 460-388720 recovered outside control limits for the following analyte: Caprolactam. This analyte was not detected in the associated samples; therefore, the data have been reported.

The following laboratory control sample (LCS) associated with batch 460-388379 contained one acid/base surrogate outside acceptance limits:(LCS 460-388379/3-A). The laboratory’s SOP allows one acid and/or one base surrogate to be outside acceptance limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Several analytes failed the recovery criteria low for the matrix spike (MS) and matrix spike duplicate (MSD) of sample RW-14D(175-185) -082916MS (460-119489-4) in batch 460-388720. 2,4-Dinitrotoluene, 2-Methylphenol and 3,3'-Dichlorobenzidine exceeded the RPD limit.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)

Samples FB-05-082916 (460-119489-2), RW-14S(135-155)-082916 (460-119489-3), RW-14D(175-185)-082916 (460-119489-4), RW-10A(51-61)-082916 (460-119489-5), RW-10S(120-130)-082916 (460-119489-6), RW-9A(85-95)-083016 (460-119489-7) and RW-9(206-216)-083016 (460-119489-8) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) in accordance with EPA Method 8270C SIM DKQP. The samples were prepared on 09/02/2016 and analyzed on 09/04/2016 and 09/06/2016.

Job ID: 460-119489-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

The continuing calibration verification (CCV) analyzed in 460-388366 was outside the method criteria for the following analytes: Bis(2-chloroethyl)ether. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatile organic compounds - Selected Ion Mode (SIM) analysis.

All other quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS) DKQP

Samples TB-09-082916 (460-119489-1), FB-05-082916 (460-119489-2), RW-14S(135-155)-082916 (460-119489-3), RW-14D(175-185)-082916 (460-119489-4), RW-10A(51-61)-082916 (460-119489-5), RW-10S(120-130)-082916 (460-119489-6), RW-9A(85-95)-083016 (460-119489-7) and RW-9(206-216)-083016 (460-119489-8) were analyzed for volatile organic compounds (GC-MS) DKQP in accordance with EPA SW-846 Method 8260C SIM DKQP. The samples were analyzed on 09/01/2016 and 09/02/2016.

No difficulties were encountered during the volatile organic compounds (GC-MS) DKQP analysis.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS) DKQP

Samples FB-05-082916 (460-119489-2), RW-14S(135-155)-082916 (460-119489-3), RW-14D(175-185)-082916 (460-119489-4), RW-10A(51-61)-082916 (460-119489-5), RW-10S(120-130)-082916 (460-119489-6) and RW-9A(85-95)-083016 (460-119489-7) were analyzed for polychlorinated biphenyls (PCBs) DKQP in accordance with EPA SW-846 Method 8082A DKQP. The samples were prepared on 09/02/2016 and analyzed on 09/06/2016.

PCB-1016 and PCB-1260 failed the recovery criteria high for LCS 460-388507/2-A.

PCB-1016 and PCB-1260 failed the recovery criteria high for the MSD of sample RW-14D(175-185)-082916MSD (460-119489-4) in batch 460-388760.

Refer to the QC report for details.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

METALS DKQP

Samples FB-05-082916 (460-119489-2), RW-14S(135-155)-082916 (460-119489-3), RW-14D(175-185)-082916 (460-119489-4), RW-10A(51-61)-082916 (460-119489-5), RW-10S(120-130)-082916 (460-119489-6) and RW-9A(85-95)-083016 (460-119489-7) were analyzed for Metals DKQP in accordance with EPA SW-846 Method 6020A DKQP. The samples were prepared on 09/07/2016 and analyzed on 09/07/2016 and 09/08/2016.

Several analytes failed the recovery criteria low for the MS of sample RW-14D(175-185)-082916MS (460-119489-4) in batch 460-389242.

Refer to the QC report for details.

No other difficulties were encountered during the Metals DKQP analysis.

All other quality control parameters were within the acceptance limits.

METALS

Samples FB-05-082916 (460-119489-2), RW-14S(135-155)-082916 (460-119489-3), RW-14D(175-185)-082916 (460-119489-4), RW-10A(51-61)-082916 (460-119489-5), RW-10S(120-130)-082916 (460-119489-6), RW-9A(85-95)-083016 (460-119489-7) and RW-9(206-216)-083016 (460-119489-8) were analyzed for Metals in accordance with EPA SW-846 Method 6020A DKQP. The samples

Job ID: 460-119489-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

were prepared on 09/04/2016 and 09/06/2016 and analyzed on 09/07/2016, 09/10/2016 and 09/11/2016.

Calcium and Sodium failed the recovery criteria low for the MS of sample RW-14D(175-185)-082916MS (460-119489-4) in batch 460-389976.

Refer to the QC report for details.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

MERCURY DKQP

Samples FB-05-082916 (460-119489-2), RW-14S(135-155)-082916 (460-119489-3), RW-14D(175-185)-082916 (460-119489-4), RW-10A(51-61)-082916 (460-119489-5), RW-10S(120-130)-082916 (460-119489-6) and RW-9A(85-95)-083016 (460-119489-7) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 09/07/2016 and 09/08/2016.

No difficulties were encountered during the dissolved Hg analysis.

All quality control parameters were within the acceptance limits.

MERCURY DKQP

Samples FB-05-082916 (460-119489-2), RW-14S(135-155)-082916 (460-119489-3), RW-14D(175-185)-082916 (460-119489-4), RW-10A(51-61)-082916 (460-119489-5), RW-10S(120-130)-082916 (460-119489-6), RW-9A(85-95)-083016 (460-119489-7) and RW-9(206-216)-083016 (460-119489-8) were analyzed for mercury DKQP in accordance with EPA SW-846 Method 7470A DKQP. The samples were prepared and analyzed on 09/07/2016.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

ANIONS

Samples FB-05-082916 (460-119489-2), RW-14S(135-155)-082916 (460-119489-3), RW-14D(175-185)-082916 (460-119489-4), RW-10A(51-61)-082916 (460-119489-5), RW-10S(120-130)-082916 (460-119489-6) and RW-9A(85-95)-083016 (460-119489-7) were analyzed for anions in accordance with EPA SW-846 Method 9056. The samples were analyzed on 09/11/2016, 09/12/2016 and 09/13/2016.

Sulfate failed the recovery criteria high for the MSD of sample RW-10S(120-130)-082916MSD (460-119489-6) in batch 460-390003.

Refer to the QC report for details.

The following samples was diluted to bring the concentration of target analytes within the calibration range: RW-14S(135-155)-082916 (460-119489-3), RW-14D(175-185)-082916 (460-119489-4), RW-10S(120-130)-082916 (460-119489-6), (460-119489-H-6 MS), (460-119489-H-6 MSD), (460-119679-A-2), (460-119679-A-2 DU), (460-119679-A-2 MS) and (460-119679-A-2 MSD) at 20.0, 20.0, 10.0, 10.0, 10.0, 20.0, 20.0, 20.0 and 20.0. Elevated reporting limits (RLs) are provided.

The following samples was diluted to bring the concentration of target analytes within the calibration range: RW-10A(51-61)-082916 (460-119489-5), (460-119489-I-5 DU), (460-119489-I-5 MS) and (460-119489-I-5 MSD) at 5.0, 5.0, 5.0 and 5.0. Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the anions analysis.

All other quality control parameters were within the acceptance limits.

ALKALINITY

Job ID: 460-119489-1 (Continued)

Laboratory: TestAmerica Edison (Continued)

Samples FB-05-082916 (460-119489-2), RW-14S(135-155)-082916 (460-119489-3), RW-14D(175-185)-082916 (460-119489-4), RW-10A(51-61)-082916 (460-119489-5), RW-10S(120-130)-082916 (460-119489-6) and RW-9A(85-95)-083016 (460-119489-7) were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 09/09/2016.

No difficulties were encountered during the alkalinity analysis.

All quality control parameters were within the acceptance limits.

CYANIDE

Samples FB-05-082916 (460-119489-2), RW-14S(135-155)-082916 (460-119489-3), RW-14D(175-185)-082916 (460-119489-4), RW-10A(51-61)-082916 (460-119489-5), RW-10S(120-130)-082916 (460-119489-6), RW-9A(85-95)-083016 (460-119489-7) and RW-9(206-216)-083016 (460-119489-8) were analyzed for cyanide in accordance with EPA SW-846 Method 9012B (DKQP). The samples were prepared on 09/07/2016 and analyzed on 09/08/2016.

No difficulties were encountered during the cyanide analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Client Sample ID: TB-09-082916 — Lab Sample ID: 460-119489-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.4		5.0	1.1	ug/L	1		8260C	Total/NA

Client Sample ID: FB-05-082916 — Lab Sample ID: 460-119489-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.4		5.0	1.1	ug/L	1		8260C	Total/NA
Methylene Chloride	0.87	J	1.0	0.21	ug/L	1		8260C	Total/NA
Trichloroethene	0.26	J	1.0	0.22	ug/L	1		8260C	Total/NA
Chloride	0.15		0.12	0.030	mg/L	1		9056A	Total/NA

Client Sample ID: RW-14S(135-155)-082916 — Lab Sample ID: 460-119489-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13		5.0	1.1	ug/L	1		8260C	Total/NA
Carbon disulfide	0.56	J	1.0	0.22	ug/L	1		8260C	Total/NA
Toluene	0.96	J	1.0	0.25	ug/L	1		8260C	Total/NA
Chloride - DL	40.2	D	2.40	0.60	mg/L	20		9056A	Total/NA
Sulfate - DL	75.5	D	12.0	2.10	mg/L	20		9056A	Total/NA
Arsenic	14.0		2.0	0.64	ug/L	2		6020A	Total/NA
Barium	18.1		4.0	1.2	ug/L	2		6020A	Total/NA
Copper	3.2	J	4.0	1.4	ug/L	2		6020A	Total/NA
Manganese	110		8.0	2.5	ug/L	2		6020A	Total/NA
Nickel	2.5	J	4.0	1.4	ug/L	2		6020A	Total/NA
Lead	0.81	J	1.2	0.38	ug/L	2		6020A	Total/NA
Vanadium	2.1	J	4.0	1.9	ug/L	2		6020A	Total/NA
Sodium	58900		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	8490		200	63.6	ug/L	2		6020A	Total/NA
Potassium	4300		200	91.4	ug/L	2		6020A	Total/NA
Calcium	40000		200	60.5	ug/L	2		6020A	Total/NA
Iron	3400		120	42.4	ug/L	2		6020A	Total/NA
Arsenic	11.3		2.0	0.64	ug/L	2		6020A	Dissolved
Barium	16.0		4.0	1.2	ug/L	2		6020A	Dissolved
Manganese	101		8.0	2.5	ug/L	2		6020A	Dissolved
Nickel	1.4	J	4.0	1.4	ug/L	2		6020A	Dissolved
Sodium	53900		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	8150		200	63.6	ug/L	2		6020A	Dissolved
Potassium	4230		200	91.4	ug/L	2		6020A	Dissolved
Calcium	41600		200	60.5	ug/L	2		6020A	Dissolved
Iron	1890		120	42.4	ug/L	2		6020A	Dissolved
Bicarbonate Alkalinity as CaCO3	119		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	119		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-14D(175-185)-082916 — Lab Sample ID: 460-119489-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	3.5	J	5.0	2.2	ug/L	1		8260C	Total/NA
Acetone	15		5.0	1.1	ug/L	1		8260C	Total/NA
Benzene	0.31	J	1.0	0.090	ug/L	1		8260C	Total/NA
Carbon disulfide	1.0		1.0	0.22	ug/L	1		8260C	Total/NA
Toluene	0.85	J	1.0	0.25	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RW-14D(175-185)-082916 (Continued) — Lab Sample ID: 460-119489-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride - DL	43.4	D	2.40	0.60	mg/L	20		9056A	Total/NA
Sulfate - DL	163	D	12.0	2.10	mg/L	20		9056A	Total/NA
Arsenic	8.8		2.0	0.64	ug/L	2		6020A	Total/NA
Barium	30.9		4.0	1.2	ug/L	2		6020A	Total/NA
Copper	1.4	J	4.0	1.4	ug/L	2		6020A	Total/NA
Manganese	608		8.0	2.5	ug/L	2		6020A	Total/NA
Nickel	1.6	J	4.0	1.4	ug/L	2		6020A	Total/NA
Sodium	68200		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	14300		200	63.6	ug/L	2		6020A	Total/NA
Potassium	3960		200	91.4	ug/L	2		6020A	Total/NA
Calcium	64800		200	60.5	ug/L	2		6020A	Total/NA
Iron	26000		120	42.4	ug/L	2		6020A	Total/NA
Arsenic	1.1	J	2.0	0.64	ug/L	2		6020A	Dissolved
Barium	31.6		4.0	1.2	ug/L	2		6020A	Dissolved
Manganese	889		8.0	2.5	ug/L	2		6020A	Dissolved
Sodium	115000		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	18600		200	63.6	ug/L	2		6020A	Dissolved
Potassium	5690		200	91.4	ug/L	2		6020A	Dissolved
Calcium	93400		200	60.5	ug/L	2		6020A	Dissolved
Iron	3990	F1	120	42.4	ug/L	2		6020A	Dissolved
Cyanide, Total	0.0022	J	0.010	0.0020	mg/L	1		9012B	Total/NA
Bicarbonate Alkalinity as CaCO3	146		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	146		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-10A(51-61)-082916 — Lab Sample ID: 460-119489-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.0		5.0	1.1	ug/L	1		8260C	Total/NA
Chloride	3.70		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate - DL2	50.9	D	3.00	0.53	mg/L	5		9056A	Total/NA
Arsenic	0.86	J	2.0	0.64	ug/L	2		6020A	Total/NA
Barium	11.4		4.0	1.2	ug/L	2		6020A	Total/NA
Cobalt	4.2		4.0	1.3	ug/L	2		6020A	Total/NA
Copper	2.9	J	4.0	1.4	ug/L	2		6020A	Total/NA
Manganese	2460		8.0	2.5	ug/L	2		6020A	Total/NA
Nickel	18.2		4.0	1.4	ug/L	2		6020A	Total/NA
Sodium	20300		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	15100		200	63.6	ug/L	2		6020A	Total/NA
Potassium	2760		200	91.4	ug/L	2		6020A	Total/NA
Calcium	53300		200	60.5	ug/L	2		6020A	Total/NA
Iron	648		120	42.4	ug/L	2		6020A	Total/NA
Arsenic	0.79	J	2.0	0.64	ug/L	2		6020A	Dissolved
Barium	10.8		4.0	1.2	ug/L	2		6020A	Dissolved
Cobalt	3.4	J	4.0	1.3	ug/L	2		6020A	Dissolved
Manganese	2310		8.0	2.5	ug/L	2		6020A	Dissolved
Nickel	11.4		4.0	1.4	ug/L	2		6020A	Dissolved
Sodium	17400		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	14200		200	63.6	ug/L	2		6020A	Dissolved
Potassium	2750		200	91.4	ug/L	2		6020A	Dissolved
Calcium	55400		200	60.5	ug/L	2		6020A	Dissolved

This Detection Summary does not include radiochemical test results.

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Client Sample ID: RW-10A(51-61)-082916 (Continued) — Lab Sample ID: 460-119489-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	185		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	185		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-10S(120-130)-082916 — Lab Sample ID: 460-119489-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	4.7	J	5.0	2.2	ug/L	1		8260C	Total/NA
2-Hexanone	0.75	J	5.0	0.72	ug/L	1		8260C	Total/NA
Acetone	48		5.0	1.1	ug/L	1		8260C	Total/NA
Carbon disulfide	0.53	J	1.0	0.22	ug/L	1		8260C	Total/NA
Phenol	7.4	J	11	0.44	ug/L	1		8270D	Total/NA
Isophorone	1.3	J	11	0.71	ug/L	1		8270D	Total/NA
Chloride - DL	11.0	D	1.20	0.30	mg/L	10		9056A	Total/NA
Sulfate - DL	143	D F1	6.00	1.05	mg/L	10		9056A	Total/NA
Arsenic	6.6		2.0	0.64	ug/L	2		6020A	Total/NA
Barium	13.1		4.0	1.2	ug/L	2		6020A	Total/NA
Nickel	11.4		4.0	1.4	ug/L	2		6020A	Total/NA
Antimony	0.88	J	2.0	0.62	ug/L	2		6020A	Total/NA
Selenium	2.5	J	10.0	0.73	ug/L	2		6020A	Total/NA
Vanadium	5.9		4.0	1.9	ug/L	2		6020A	Total/NA
Aluminum	114		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	68800		200	69.0	ug/L	2		6020A	Total/NA
Potassium	21600		200	91.4	ug/L	2		6020A	Total/NA
Calcium	44400		200	60.5	ug/L	2		6020A	Total/NA
Arsenic	7.2		2.0	0.64	ug/L	2		6020A	Dissolved
Barium	12.5		4.0	1.2	ug/L	2		6020A	Dissolved
Nickel	9.3		4.0	1.4	ug/L	2		6020A	Dissolved
Selenium	2.5	J	10.0	0.73	ug/L	2		6020A	Dissolved
Vanadium	5.8		4.0	1.9	ug/L	2		6020A	Dissolved
Aluminum	100		40.0	18.2	ug/L	2		6020A	Dissolved
Sodium	63600		200	69.0	ug/L	2		6020A	Dissolved
Potassium	22600		200	91.4	ug/L	2		6020A	Dissolved
Calcium	44100		200	60.5	ug/L	2		6020A	Dissolved
Alkalinity	130		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-9A(85-95)-083016 — Lab Sample ID: 460-119489-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.7		5.0	1.1	ug/L	1		8260C	Total/NA
Chloride	1.60		0.12	0.030	mg/L	1		9056A	Total/NA
Sulfate	12.3		0.60	0.11	mg/L	1		9056A	Total/NA
Arsenic	3.0		2.0	0.64	ug/L	2		6020A	Total/NA
Barium	11.3		4.0	1.2	ug/L	2		6020A	Total/NA
Manganese	35.4		8.0	2.5	ug/L	2		6020A	Total/NA
Nickel	8.2		4.0	1.4	ug/L	2		6020A	Total/NA
Aluminum	107		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	4830		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	5710		200	63.6	ug/L	2		6020A	Total/NA
Potassium	2020		200	91.4	ug/L	2		6020A	Total/NA
Calcium	23400		200	60.5	ug/L	2		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RW-9A(85-95)-083016 (Continued)

Lab Sample ID: 460-119489-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	405		120	42.4	ug/L	2		6020A	Total/NA
Arsenic	2.9		2.0	0.64	ug/L	2		6020A	Dissolved
Barium	10.1		4.0	1.2	ug/L	2		6020A	Dissolved
Manganese	31.6		8.0	2.5	ug/L	2		6020A	Dissolved
Sodium	4500		200	69.0	ug/L	2		6020A	Dissolved
Magnesium	5390		200	63.6	ug/L	2		6020A	Dissolved
Potassium	1910	*	200	91.4	ug/L	2		6020A	Dissolved
Calcium	24000		200	60.5	ug/L	2		6020A	Dissolved
Cyanide, Total	0.0065	J	0.010	0.0020	mg/L	1		9012B	Total/NA
Bicarbonate Alkalinity as CaCO3	81.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA
Alkalinity	81.4		5.0	5.0	mg/L	1		SM 2320B	Total/NA

Client Sample ID: RW-9(206-216)-083016

Lab Sample ID: 460-119489-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.1		5.0	1.1	ug/L	1		8260C	Total/NA
Benzene	0.15	J	1.0	0.090	ug/L	1		8260C	Total/NA
Arsenic	2.8		2.0	0.64	ug/L	2		6020A	Total/NA
Barium	59.6		4.0	1.2	ug/L	2		6020A	Total/NA
Manganese	316		8.0	2.5	ug/L	2		6020A	Total/NA
Nickel	2.3	J	4.0	1.4	ug/L	2		6020A	Total/NA
Aluminum	62.3		40.0	18.2	ug/L	2		6020A	Total/NA
Sodium	166000		200	69.0	ug/L	2		6020A	Total/NA
Magnesium	16300		200	63.6	ug/L	2		6020A	Total/NA
Potassium	16300		200	91.4	ug/L	2		6020A	Total/NA
Calcium	82700		200	60.5	ug/L	2		6020A	Total/NA
Iron	663		120	42.4	ug/L	2		6020A	Total/NA
Cyanide, Total	0.0068	J	0.010	0.0020	mg/L	1		9012B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-09-082916

Date Collected: 08/29/16 00:00
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-1

Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			09/01/16 21:03	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			09/01/16 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*70 - 130*		*09/01/16 21:03*	*1*
4-Bromofluorobenzene	*87*		*70 - 130*		*09/01/16 21:03*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/02/16 11:33	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/02/16 11:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/02/16 11:33	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/02/16 11:33	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/02/16 11:33	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/02/16 11:33	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/02/16 11:33	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/02/16 11:33	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/02/16 11:33	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/02/16 11:33	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/02/16 11:33	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 11:33	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 11:33	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/02/16 11:33	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/02/16 11:33	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/02/16 11:33	1
Acetone	**7.4**		5.0	1.1	ug/L			09/02/16 11:33	1
Benzene	0.090	U	1.0	0.090	ug/L			09/02/16 11:33	1
Bromoform	0.18	U	1.0	0.18	ug/L			09/02/16 11:33	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/02/16 11:33	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			09/02/16 11:33	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/02/16 11:33	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/02/16 11:33	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/02/16 11:33	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/02/16 11:33	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/02/16 11:33	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/02/16 11:33	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/02/16 11:33	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/02/16 11:33	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/02/16 11:33	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/02/16 11:33	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/02/16 11:33	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/02/16 11:33	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/02/16 11:33	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/02/16 11:33	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/02/16 11:33	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/02/16 11:33	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/02/16 11:33	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/02/16 11:33	1
Styrene	0.17	U	1.0	0.17	ug/L			09/02/16 11:33	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/02/16 11:33	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Client Sample ID: TB-09-082916

Lab Sample ID: 460-119489-1

Date Collected: 08/29/16 00:00

Matrix: Water

Date Received: 08/30/16 19:30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.25	U	1.0	0.25	ug/L			09/02/16 11:33	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/02/16 11:33	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/02/16 11:33	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/02/16 11:33	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/02/16 11:33	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/02/16 11:33	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/02/16 11:33	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/02/16 11:33*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*09/02/16 11:33*	*1*
4-Bromofluorobenzene	*103*		*70 - 130*		*09/02/16 11:33*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*09/02/16 11:33*	*1*
Toluene-d8 (Surr)	*105*		*70 - 130*		*09/02/16 11:33*	*1*

Client Sample ID: FB-05-082916

Lab Sample ID: 460-119489-2

Date Collected: 08/29/16 07:20

Matrix: Water

Date Received: 08/30/16 19:30

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			09/01/16 21:28	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			09/01/16 21:28	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			09/01/16 21:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*113*		*70 - 130*		*09/01/16 21:28*	*1*
4-Bromofluorobenzene	*83*		*70 - 130*		*09/01/16 21:28*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/02/16 11:59	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/02/16 11:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/02/16 11:59	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/02/16 11:59	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/02/16 11:59	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/02/16 11:59	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/02/16 11:59	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/02/16 11:59	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/02/16 11:59	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/02/16 11:59	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/02/16 11:59	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 11:59	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 11:59	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/02/16 11:59	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/02/16 11:59	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/02/16 11:59	1
Acetone	**7.4**		5.0	1.1	ug/L			09/02/16 11:59	1
Benzene	0.090	U	1.0	0.090	ug/L			09/02/16 11:59	1

Client Sample ID: FB-05-082916
Date Collected: 08/29/16 07:20
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	0.18	U	1.0	0.18	ug/L			09/02/16 11:59	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/02/16 11:59	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			09/02/16 11:59	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/02/16 11:59	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/02/16 11:59	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/02/16 11:59	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/02/16 11:59	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/02/16 11:59	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/02/16 11:59	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/02/16 11:59	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/02/16 11:59	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/02/16 11:59	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/02/16 11:59	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/02/16 11:59	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/02/16 11:59	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/02/16 11:59	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/02/16 11:59	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/02/16 11:59	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/02/16 11:59	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/02/16 11:59	1
Methylene Chloride	**0.87**	**J**	1.0	0.21	ug/L			09/02/16 11:59	1
Styrene	0.17	U	1.0	0.17	ug/L			09/02/16 11:59	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/02/16 11:59	1
Toluene	0.25	U	1.0	0.25	ug/L			09/02/16 11:59	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/02/16 11:59	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/02/16 11:59	1
Trichloroethene	**0.26**	**J**	1.0	0.22	ug/L			09/02/16 11:59	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/02/16 11:59	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/02/16 11:59	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/02/16 11:59	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/02/16 11:59*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*09/02/16 11:59*	*1*
4-Bromofluorobenzene	*97*		*70 - 130*		*09/02/16 11:59*	*1*
Dibromofluoromethane (Surr)	*94*		*70 - 130*		*09/02/16 11:59*	*1*
Toluene-d8 (Surr)	*100*		*70 - 130*		*09/02/16 11:59*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		09/02/16 09:20	09/04/16 21:02	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		09/02/16 09:20	09/04/16 21:02	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		09/02/16 09:20	09/04/16 21:02	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		09/02/16 09:20	09/04/16 21:02	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		09/02/16 09:20	09/04/16 21:02	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		09/02/16 09:20	09/04/16 21:02	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		09/02/16 09:20	09/04/16 21:02	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		09/02/16 09:20	09/04/16 21:02	1

Client Sample ID: FB-05-082916
Date Collected: 08/29/16 07:20
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		09/02/16 09:20	09/06/16 11:57	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		09/02/16 09:20	09/06/16 11:57	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		09/02/16 09:20	09/06/16 11:57	1
4-Methylphenol	0.87	U	10	0.87	ug/L		09/02/16 09:20	09/06/16 11:57	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		09/02/16 09:20	09/06/16 11:57	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		09/02/16 09:20	09/06/16 11:57	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		09/02/16 09:20	09/06/16 11:57	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		09/02/16 09:20	09/06/16 11:57	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		09/02/16 09:20	09/06/16 11:57	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		09/02/16 09:20	09/06/16 11:57	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		09/02/16 09:20	09/06/16 11:57	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		09/02/16 09:20	09/06/16 11:57	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		09/02/16 09:20	09/06/16 11:57	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		09/02/16 09:20	09/06/16 11:57	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		09/02/16 09:20	09/06/16 11:57	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		09/02/16 09:20	09/06/16 11:57	1
Isophorone	0.67	U	10	0.67	ug/L		09/02/16 09:20	09/06/16 11:57	1
Naphthalene	0.80	U *	10	0.80	ug/L		09/02/16 09:20	09/06/16 11:57	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		09/02/16 09:20	09/06/16 11:57	1
Hexachlorobutadiene	0.76	U *	1.0	0.76	ug/L		09/02/16 09:20	09/06/16 11:57	1
2-Methylnaphthalene	0.88	U *	10	0.88	ug/L		09/02/16 09:20	09/06/16 11:57	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		09/02/16 09:20	09/06/16 11:57	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		09/02/16 09:20	09/06/16 11:57	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		09/02/16 09:20	09/06/16 11:57	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		09/02/16 09:20	09/06/16 11:57	1
Acenaphthylene	0.65	U	10	0.65	ug/L		09/02/16 09:20	09/06/16 11:57	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		09/02/16 09:20	09/06/16 11:57	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		09/02/16 09:20	09/06/16 11:57	1
Acenaphthene	0.88	U	10	0.88	ug/L		09/02/16 09:20	09/06/16 11:57	1
Dibenzofuran	0.85	U	10	0.85	ug/L		09/02/16 09:20	09/06/16 11:57	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		09/02/16 09:20	09/06/16 11:57	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 11:57	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		09/02/16 09:20	09/06/16 11:57	1
Fluorene	0.80	U	10	0.80	ug/L		09/02/16 09:20	09/06/16 11:57	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		09/02/16 09:20	09/06/16 11:57	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		09/02/16 09:20	09/06/16 11:57	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 11:57	1
Phenanthrene	0.65	U	10	0.65	ug/L		09/02/16 09:20	09/06/16 11:57	1
Anthracene	0.57	U	10	0.57	ug/L		09/02/16 09:20	09/06/16 11:57	1
Carbazole	0.85	U	10	0.85	ug/L		09/02/16 09:20	09/06/16 11:57	1
Di-n-butyl phthalate	0.82	U	10	0.82	ug/L		09/02/16 09:20	09/06/16 11:57	1
Fluoranthene	0.72	U	10	0.72	ug/L		09/02/16 09:20	09/06/16 11:57	1
Pyrene	0.83	U	10	0.83	ug/L		09/02/16 09:20	09/06/16 11:57	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		09/02/16 09:20	09/06/16 11:57	1
Chrysene	0.67	U	2.0	0.67	ug/L		09/02/16 09:20	09/06/16 11:57	1
Bis(2-ethylhexyl) phthalate	0.72	U	2.0	0.72	ug/L		09/02/16 09:20	09/06/16 11:57	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		09/02/16 09:20	09/06/16 11:57	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		09/02/16 09:20	09/06/16 11:57	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		09/02/16 09:20	09/06/16 11:57	1

Client Sample ID: FB-05-082916
Date Collected: 08/29/16 07:20
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		09/02/16 09:20	09/06/16 11:57	1
Acetophenone	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 11:57	1
Benzaldehyde	0.86	U	10	0.86	ug/L		09/02/16 09:20	09/06/16 11:57	1
Caprolactam	1.1	U *	10	1.1	ug/L		09/02/16 09:20	09/06/16 11:57	1
Atrazine	0.77	U	2.0	0.77	ug/L		09/02/16 09:20	09/06/16 11:57	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		09/02/16 09:20	09/06/16 11:57	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		09/02/16 09:20	09/06/16 11:57	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		09/02/16 09:20	09/06/16 11:57	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 11:57	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		09/02/16 09:20	09/06/16 11:57	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*				*09/02/16 09:20*	*09/06/16 11:57*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*77*		*30 - 130*	*09/02/16 09:20*	*09/06/16 11:57*	*1*
Phenol-d5 (Surr)	*20*		*15 - 110*	*09/02/16 09:20*	*09/06/16 11:57*	*1*
Terphenyl-d14 (Surr)	*88*		*30 - 130*	*09/02/16 09:20*	*09/06/16 11:57*	*1*
2,4,6-Tribromophenol (Surr)	*69*		*15 - 110*	*09/02/16 09:20*	*09/06/16 11:57*	*1*
2-Fluorophenol (Surr)	*27*		*15 - 110*	*09/02/16 09:20*	*09/06/16 11:57*	*1*
2-Fluorobiphenyl	*66*		*30 - 130*	*09/02/16 09:20*	*09/06/16 11:57*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 15:12	1
PCB-1016	0.098	U *	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 15:12	1
PCB-1221	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 15:12	1
PCB-1232	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 15:12	1
PCB-1242	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 15:12	1
PCB-1248	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 15:12	1
PCB-1254	0.084	U	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 15:12	1
PCB-1260	0.084	U *	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 15:12	1
PCB-1262	0.084	U	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 15:12	1
PCB-1268	0.084	U	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 15:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*90*		*30 - 150*	*09/02/16 19:39*	*09/06/16 15:12*	*1*
Tetrachloro-m-xylene	*101*		*30 - 150*	*09/02/16 19:39*	*09/06/16 15:12*	*1*
DCB Decachlorobiphenyl	*86*		*30 - 150*	*09/02/16 19:39*	*09/06/16 15:12*	*1*
DCB Decachlorobiphenyl	*95*		*30 - 150*	*09/02/16 19:39*	*09/06/16 15:12*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**0.15**		0.12	0.030	mg/L			09/11/16 06:12	1
Sulfate	0.11	U	0.60	0.11	mg/L			09/11/16 06:12	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/04/16 19:27	09/10/16 08:39	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/04/16 19:27	09/07/16 11:34	2
Barium	1.2	U	4.0	1.2	ug/L		09/04/16 19:27	09/07/16 11:34	2

Client Sample ID: FB-05-082916
Date Collected: 08/29/16 07:20
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-2
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.24	U	0.80	0.24	ug/L		09/04/16 19:27	09/07/16 11:34	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/04/16 19:27	09/07/16 11:34	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/04/16 19:27	09/07/16 11:34	2
Chromium	1.3	U	4.0	1.3	ug/L		09/04/16 19:27	09/07/16 11:34	2
Copper	1.4	U	4.0	1.4	ug/L		09/04/16 19:27	09/07/16 11:34	2
Manganese	2.5	U	8.0	2.5	ug/L		09/04/16 19:27	09/07/16 11:34	2
Nickel	1.4	U	4.0	1.4	ug/L		09/04/16 19:27	09/07/16 11:34	2
Lead	0.38	U	1.2	0.38	ug/L		09/04/16 19:27	09/07/16 11:34	2
Antimony	0.62	U	2.0	0.62	ug/L		09/04/16 19:27	09/07/16 11:34	2
Selenium	0.73	U	10.0	0.73	ug/L		09/04/16 19:27	09/07/16 11:34	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/04/16 19:27	09/07/16 11:34	2
Zinc	7.0	U	16.0	7.0	ug/L		09/04/16 19:27	09/07/16 11:34	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/04/16 19:27	09/07/16 11:34	2
Sodium	69.0	U	200	69.0	ug/L		09/04/16 19:27	09/07/16 11:34	2
Magnesium	63.6	U	200	63.6	ug/L		09/04/16 19:27	09/07/16 11:34	2
Potassium	91.4	U	200	91.4	ug/L		09/04/16 19:27	09/07/16 11:34	2
Calcium	60.5	U	200	60.5	ug/L		09/04/16 19:27	09/07/16 11:34	2
Iron	42.4	U	120	42.4	ug/L		09/04/16 19:27	09/07/16 11:34	2
Thallium	0.26	U	0.80	0.26	ug/L		09/04/16 19:27	09/07/16 11:34	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:36	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/07/16 12:41	09/07/16 17:36	2
Barium	1.2	U	4.0	1.2	ug/L		09/07/16 12:41	09/07/16 17:36	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 12:41	09/07/16 17:36	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 12:41	09/07/16 17:36	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:36	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:36	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 12:41	09/07/16 17:36	2
Manganese	2.5	U	8.0	2.5	ug/L		09/07/16 12:41	09/07/16 17:36	2
Nickel	1.4	U	4.0	1.4	ug/L		09/07/16 12:41	09/07/16 17:36	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 12:41	09/07/16 17:36	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 12:41	09/07/16 17:36	2
Selenium	0.73	U	10.0	0.73	ug/L		09/07/16 12:41	09/07/16 17:36	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 12:41	09/07/16 17:36	2
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 12:41	09/07/16 17:36	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/07/16 12:41	09/07/16 17:36	2
Sodium	69.0	U	200	69.0	ug/L		09/07/16 12:41	09/07/16 17:36	2
Magnesium	63.6	U	200	63.6	ug/L		09/07/16 12:41	09/07/16 17:36	2
Potassium	91.4	U	200	91.4	ug/L		09/07/16 12:41	09/07/16 17:36	2
Calcium	60.5	U	200	60.5	ug/L		09/07/16 12:41	09/07/16 17:36	2
Iron	42.4	U	120	42.4	ug/L		09/07/16 12:41	09/07/16 17:36	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 12:41	09/07/16 17:36	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:28	09/07/16 13:47	1

Client Sample ID: FB-05-082916

Lab Sample ID: 460-119489-2

Date Collected: 08/29/16 07:20

Matrix: Water

Date Received: 08/30/16 19:30

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:41	09/07/16 15:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 15:17	09/08/16 10:12	1
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/09/16 13:57	1
Alkalinity	5.0	U	5.0	5.0	mg/L			09/09/16 13:57	1

Client Sample ID: RW-14S(135-155)-082916

Lab Sample ID: 460-119489-3

Date Collected: 08/29/16 08:45

Matrix: Water

Date Received: 08/30/16 19:30

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			09/02/16 01:38	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			09/02/16 01:38	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			09/02/16 01:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*09/02/16 01:38*	*1*
4-Bromofluorobenzene	*86*		*70 - 130*		*09/02/16 01:38*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/02/16 13:18	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/02/16 13:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/02/16 13:18	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/02/16 13:18	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/02/16 13:18	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/02/16 13:18	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/02/16 13:18	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/02/16 13:18	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/02/16 13:18	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/02/16 13:18	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/02/16 13:18	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 13:18	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 13:18	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/02/16 13:18	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/02/16 13:18	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/02/16 13:18	1
Acetone	**13**		5.0	1.1	ug/L			09/02/16 13:18	1
Benzene	0.090	U	1.0	0.090	ug/L			09/02/16 13:18	1
Bromoform	0.18	U	1.0	0.18	ug/L			09/02/16 13:18	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/02/16 13:18	1
Carbon disulfide	**0.56**	**J**	1.0	0.22	ug/L			09/02/16 13:18	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/02/16 13:18	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/02/16 13:18	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/02/16 13:18	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/02/16 13:18	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/02/16 13:18	1

Client Sample ID: RW-14S(135-155)-082916

Date Collected: 08/29/16 08:45
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	0.22	U	1.0	0.22	ug/L			09/02/16 13:18	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/02/16 13:18	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/02/16 13:18	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/02/16 13:18	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/02/16 13:18	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/02/16 13:18	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/02/16 13:18	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/02/16 13:18	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/02/16 13:18	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/02/16 13:18	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/02/16 13:18	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/02/16 13:18	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/02/16 13:18	1
Styrene	0.17	U	1.0	0.17	ug/L			09/02/16 13:18	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/02/16 13:18	1
Toluene	**0.96**	**J**	1.0	0.25	ug/L			09/02/16 13:18	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/02/16 13:18	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/02/16 13:18	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/02/16 13:18	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/02/16 13:18	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/02/16 13:18	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/02/16 13:18	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/02/16 13:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*75*		*70 - 130*		*09/02/16 13:18*	*1*
4-Bromofluorobenzene	*78*		*70 - 130*		*09/02/16 13:18*	*1*
Dibromofluoromethane (Surr)	*74*		*70 - 130*		*09/02/16 13:18*	*1*
Toluene-d8 (Surr)	*79*		*70 - 130*		*09/02/16 13:18*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		09/02/16 09:20	09/04/16 21:30	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		09/02/16 09:20	09/04/16 21:30	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		09/02/16 09:20	09/04/16 21:30	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		09/02/16 09:20	09/04/16 21:30	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		09/02/16 09:20	09/04/16 21:30	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		09/02/16 09:20	09/04/16 21:30	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		09/02/16 09:20	09/04/16 21:30	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		09/02/16 09:20	09/04/16 21:30	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		09/02/16 09:20	09/06/16 12:17	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		09/02/16 09:20	09/06/16 12:17	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		09/02/16 09:20	09/06/16 12:17	1
4-Methylphenol	0.87	U	10	0.87	ug/L		09/02/16 09:20	09/06/16 12:17	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		09/02/16 09:20	09/06/16 12:17	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Client Sample ID: RW-14S(135-155)-082916
Date Collected: 08/29/16 08:45
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		09/02/16 09:20	09/06/16 12:17	1
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		09/02/16 09:20	09/06/16 12:17	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		09/02/16 09:20	09/06/16 12:17	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		09/02/16 09:20	09/06/16 12:17	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		09/02/16 09:20	09/06/16 12:17	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		09/02/16 09:20	09/06/16 12:17	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		09/02/16 09:20	09/06/16 12:17	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		09/02/16 09:20	09/06/16 12:17	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		09/02/16 09:20	09/06/16 12:17	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		09/02/16 09:20	09/06/16 12:17	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		09/02/16 09:20	09/06/16 12:17	1
Isophorone	0.67	U	10	0.67	ug/L		09/02/16 09:20	09/06/16 12:17	1
Naphthalene	0.80	U *	10	0.80	ug/L		09/02/16 09:20	09/06/16 12:17	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		09/02/16 09:20	09/06/16 12:17	1
Hexachlorobutadiene	0.76	U *	1.0	0.76	ug/L		09/02/16 09:20	09/06/16 12:17	1
2-Methylnaphthalene	0.88	U *	10	0.88	ug/L		09/02/16 09:20	09/06/16 12:17	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		09/02/16 09:20	09/06/16 12:17	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		09/02/16 09:20	09/06/16 12:17	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		09/02/16 09:20	09/06/16 12:17	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		09/02/16 09:20	09/06/16 12:17	1
Acenaphthylene	0.65	U	10	0.65	ug/L		09/02/16 09:20	09/06/16 12:17	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		09/02/16 09:20	09/06/16 12:17	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		09/02/16 09:20	09/06/16 12:17	1
Acenaphthene	0.88	U	10	0.88	ug/L		09/02/16 09:20	09/06/16 12:17	1
Dibenzofuran	0.85	U	10	0.85	ug/L		09/02/16 09:20	09/06/16 12:17	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		09/02/16 09:20	09/06/16 12:17	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 12:17	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		09/02/16 09:20	09/06/16 12:17	1
Fluorene	0.80	U	10	0.80	ug/L		09/02/16 09:20	09/06/16 12:17	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		09/02/16 09:20	09/06/16 12:17	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		09/02/16 09:20	09/06/16 12:17	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 12:17	1
Phenanthrene	0.65	U	10	0.65	ug/L		09/02/16 09:20	09/06/16 12:17	1
Anthracene	0.57	U	10	0.57	ug/L		09/02/16 09:20	09/06/16 12:17	1
Carbazole	0.85	U	10	0.85	ug/L		09/02/16 09:20	09/06/16 12:17	1
Di-n-butyl phthalate	0.82	U	10	0.82	ug/L		09/02/16 09:20	09/06/16 12:17	1
Fluoranthene	0.72	U	10	0.72	ug/L		09/02/16 09:20	09/06/16 12:17	1
Pyrene	0.83	U	10	0.83	ug/L		09/02/16 09:20	09/06/16 12:17	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		09/02/16 09:20	09/06/16 12:17	1
Chrysene	0.67	U	2.0	0.67	ug/L		09/02/16 09:20	09/06/16 12:17	1
Bis(2-ethylhexyl) phthalate	0.72	U	2.0	0.72	ug/L		09/02/16 09:20	09/06/16 12:17	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		09/02/16 09:20	09/06/16 12:17	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		09/02/16 09:20	09/06/16 12:17	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		09/02/16 09:20	09/06/16 12:17	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		09/02/16 09:20	09/06/16 12:17	1
Acetophenone	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 12:17	1
Benzaldehyde	0.86	U	10	0.86	ug/L		09/02/16 09:20	09/06/16 12:17	1
Caprolactam	1.1	U *	10	1.1	ug/L		09/02/16 09:20	09/06/16 12:17	1
Atrazine	0.77	U	2.0	0.77	ug/L		09/02/16 09:20	09/06/16 12:17	1

Client Sample ID: RW-14S(135-155)-082916

Date Collected: 08/29/16 08:45
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-3

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		09/02/16 09:20	09/06/16 12:17	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		09/02/16 09:20	09/06/16 12:17	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		09/02/16 09:20	09/06/16 12:17	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 12:17	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		09/02/16 09:20	09/06/16 12:17	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzenesulfonamide, N-butyl-	*790*	*J N*	*ug/L*		*7.88*	*3622-84-2*	*09/02/16 09:20*	*09/06/16 12:17*	*1*
Unknown	*9.5*	*J*	*ug/L*		*8.89*		*09/02/16 09:20*	*09/06/16 12:17*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*65*		*30 - 130*	*09/02/16 09:20*	*09/06/16 12:17*	*1*
Phenol-d5 (Surr)	*15*		*15 - 110*	*09/02/16 09:20*	*09/06/16 12:17*	*1*
Terphenyl-d14 (Surr)	*82*		*30 - 130*	*09/02/16 09:20*	*09/06/16 12:17*	*1*
2,4,6-Tribromophenol (Surr)	*86*		*15 - 110*	*09/02/16 09:20*	*09/06/16 12:17*	*1*
2-Fluorophenol (Surr)	*28*		*15 - 110*	*09/02/16 09:20*	*09/06/16 12:17*	*1*
2-Fluorobiphenyl	*69*		*30 - 130*	*09/02/16 09:20*	*09/06/16 12:17*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 14:57	1
PCB-1016	0.098	U *	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 14:57	1
PCB-1221	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 14:57	1
PCB-1232	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 14:57	1
PCB-1242	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 14:57	1
PCB-1248	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 14:57	1
PCB-1254	0.084	U	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 14:57	1
PCB-1260	0.084	U *	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 14:57	1
PCB-1262	0.084	U	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 14:57	1
PCB-1268	0.084	U	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*80*		*30 - 150*	*09/02/16 19:39*	*09/06/16 14:57*	*1*
Tetrachloro-m-xylene	*99*		*30 - 150*	*09/02/16 19:39*	*09/06/16 14:57*	*1*
DCB Decachlorobiphenyl	*88*		*30 - 150*	*09/02/16 19:39*	*09/06/16 14:57*	*1*
DCB Decachlorobiphenyl	*100*		*30 - 150*	*09/02/16 19:39*	*09/06/16 14:57*	*1*

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**40.2**	**D**	2.40	0.60	mg/L			09/12/16 17:05	20
Sulfate	**75.5**	**D**	12.0	2.10	mg/L			09/12/16 17:05	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/06/16 09:51	09/10/16 19:44	2
Arsenic	**14.0**		2.0	0.64	ug/L		09/06/16 09:51	09/10/16 19:44	2
Barium	**18.1**		4.0	1.2	ug/L		09/06/16 09:51	09/10/16 19:44	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/06/16 09:51	09/10/16 19:44	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/06/16 09:51	09/10/16 19:44	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/06/16 09:51	09/10/16 19:44	2
Chromium	1.3	U	4.0	1.3	ug/L		09/06/16 09:51	09/10/16 19:44	2

Client Sample ID: RW-14S(135-155)-082916
Date Collected: 08/29/16 08:45
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-3
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	**3.2**	**J**	4.0	1.4	ug/L		09/06/16 09:51	09/10/16 19:44	2
Manganese	**110**		8.0	2.5	ug/L		09/06/16 09:51	09/10/16 19:44	2
Nickel	**2.5**	**J**	4.0	1.4	ug/L		09/06/16 09:51	09/10/16 19:44	2
Lead	**0.81**	**J**	1.2	0.38	ug/L		09/06/16 09:51	09/10/16 19:44	2
Antimony	0.62	U	2.0	0.62	ug/L		09/06/16 09:51	09/10/16 19:44	2
Selenium	0.73	U	10.0	0.73	ug/L		09/06/16 09:51	09/10/16 19:44	2
Vanadium	**2.1**	**J**	4.0	1.9	ug/L		09/06/16 09:51	09/10/16 19:44	2
Zinc	7.0	U	16.0	7.0	ug/L		09/06/16 09:51	09/10/16 19:44	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/06/16 09:51	09/10/16 19:44	2
Sodium	**58900**		200	69.0	ug/L		09/06/16 09:51	09/10/16 19:44	2
Magnesium	**8490**		200	63.6	ug/L		09/06/16 09:51	09/10/16 19:44	2
Potassium	**4300**		200	91.4	ug/L		09/06/16 09:51	09/10/16 19:44	2
Calcium	**40000**		200	60.5	ug/L		09/06/16 09:51	09/10/16 19:44	2
Iron	**3400**		120	42.4	ug/L		09/06/16 09:51	09/11/16 19:16	2
Thallium	0.26	U	0.80	0.26	ug/L		09/06/16 09:51	09/10/16 19:44	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:42	2
Arsenic	**11.3**		2.0	0.64	ug/L		09/07/16 12:41	09/07/16 17:42	2
Barium	**16.0**		4.0	1.2	ug/L		09/07/16 12:41	09/07/16 17:42	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 12:41	09/07/16 17:42	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 12:41	09/07/16 17:42	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:42	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:42	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 12:41	09/07/16 17:42	2
Manganese	**101**		8.0	2.5	ug/L		09/07/16 12:41	09/07/16 17:42	2
Nickel	**1.4**	**J**	4.0	1.4	ug/L		09/07/16 12:41	09/07/16 17:42	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 12:41	09/07/16 17:42	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 12:41	09/07/16 17:42	2
Selenium	0.73	U	10.0	0.73	ug/L		09/07/16 12:41	09/07/16 17:42	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 12:41	09/07/16 17:42	2
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 12:41	09/07/16 17:42	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/07/16 12:41	09/07/16 17:42	2
Sodium	**53900**		200	69.0	ug/L		09/07/16 12:41	09/07/16 17:42	2
Magnesium	**8150**		200	63.6	ug/L		09/07/16 12:41	09/07/16 17:42	2
Potassium	**4230**		200	91.4	ug/L		09/07/16 12:41	09/07/16 17:42	2
Calcium	**41600**		200	60.5	ug/L		09/07/16 12:41	09/07/16 17:42	2
Iron	**1890**		120	42.4	ug/L		09/07/16 12:41	09/07/16 17:42	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 12:41	09/07/16 17:42	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:28	09/07/16 14:06	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:41	09/07/16 15:40	1

Client Sample ID: RW-14S(135-155)-082916

Lab Sample ID: 460-119489-3

Date Collected: 08/29/16 08:45

Matrix: Water

Date Received: 08/30/16 19:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 15:17	09/08/16 10:16	1
Bicarbonate Alkalinity as CaCO3	**119**		5.0	5.0	mg/L			09/09/16 13:57	1
Alkalinity	**119**		5.0	5.0	mg/L			09/09/16 13:57	1

Client Sample ID: RW-14D(175-185)-082916

Lab Sample ID: 460-119489-4

Date Collected: 08/29/16 09:40

Matrix: Water

Date Received: 08/30/16 19:30

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			09/02/16 02:03	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			09/02/16 02:03	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			09/02/16 02:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*		*09/02/16 02:03*	*1*
4-Bromofluorobenzene	*83*		*70 - 130*		*09/02/16 02:03*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/02/16 12:52	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/02/16 12:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/02/16 12:52	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/02/16 12:52	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/02/16 12:52	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/02/16 12:52	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/02/16 12:52	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/02/16 12:52	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/02/16 12:52	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/02/16 12:52	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/02/16 12:52	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 12:52	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 12:52	1
2-Butanone (MEK)	**3.5**	**J**	5.0	2.2	ug/L			09/02/16 12:52	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/02/16 12:52	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/02/16 12:52	1
Acetone	**15**		5.0	1.1	ug/L			09/02/16 12:52	1
Benzene	**0.31**	**J**	1.0	0.090	ug/L			09/02/16 12:52	1
Bromoform	0.18	U F1	1.0	0.18	ug/L			09/02/16 12:52	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/02/16 12:52	1
Carbon disulfide	**1.0**		1.0	0.22	ug/L			09/02/16 12:52	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/02/16 12:52	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/02/16 12:52	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/02/16 12:52	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/02/16 12:52	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/02/16 12:52	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/02/16 12:52	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/02/16 12:52	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/02/16 12:52	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/02/16 12:52	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Client Sample ID: RW-14D(175-185)-082916
Date Collected: 08/29/16 09:40
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/02/16 12:52	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/02/16 12:52	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/02/16 12:52	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/02/16 12:52	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/02/16 12:52	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/02/16 12:52	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/02/16 12:52	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/02/16 12:52	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/02/16 12:52	1
Styrene	0.17	U	1.0	0.17	ug/L			09/02/16 12:52	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/02/16 12:52	1
Toluene	**0.85**	**J**	1.0	0.25	ug/L			09/02/16 12:52	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/02/16 12:52	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/02/16 12:52	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/02/16 12:52	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/02/16 12:52	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/02/16 12:52	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/02/16 12:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/02/16 12:52*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 130*		*09/02/16 12:52*	*1*
4-Bromofluorobenzene	*99*		*70 - 130*		*09/02/16 12:52*	*1*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*09/02/16 12:52*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*09/02/16 12:52*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		09/02/16 09:20	09/04/16 20:33	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		09/02/16 09:20	09/04/16 20:33	1
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		09/02/16 09:20	09/04/16 20:33	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		09/02/16 09:20	09/04/16 20:33	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		09/02/16 09:20	09/04/16 20:33	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		09/02/16 09:20	09/04/16 20:33	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		09/02/16 09:20	09/04/16 20:33	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		09/02/16 09:20	09/04/16 20:33	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		09/02/16 09:20	09/06/16 11:38	1
2-Chlorophenol	0.74	U F1	10	0.74	ug/L		09/02/16 09:20	09/06/16 11:38	1
2-Methylphenol	1.3	U F1 * F2	10	1.3	ug/L		09/02/16 09:20	09/06/16 11:38	1
4-Methylphenol	0.87	U	10	0.87	ug/L		09/02/16 09:20	09/06/16 11:38	1
2-Nitrophenol	0.59	U F1	10	0.59	ug/L		09/02/16 09:20	09/06/16 11:38	1
2,4-Dimethylphenol	0.91	U F1	10	0.91	ug/L		09/02/16 09:20	09/06/16 11:38	1
2,4-Dichlorophenol	0.63	U F1	10	0.63	ug/L		09/02/16 09:20	09/06/16 11:38	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		09/02/16 09:20	09/06/16 11:38	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		09/02/16 09:20	09/06/16 11:38	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Client Sample ID: RW-14D(175-185)-082916
Date Collected: 08/29/16 09:40
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		09/02/16 09:20	09/06/16 11:38	1
2,4-Dinitrotoluene	1.0	U F2	2.0	1.0	ug/L		09/02/16 09:20	09/06/16 11:38	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		09/02/16 09:20	09/06/16 11:38	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		09/02/16 09:20	09/06/16 11:38	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		09/02/16 09:20	09/06/16 11:38	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		09/02/16 09:20	09/06/16 11:38	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		09/02/16 09:20	09/06/16 11:38	1
Isophorone	0.67	U F1	10	0.67	ug/L		09/02/16 09:20	09/06/16 11:38	1
Naphthalene	0.80	U F1 *	10	0.80	ug/L		09/02/16 09:20	09/06/16 11:38	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		09/02/16 09:20	09/06/16 11:38	1
Hexachlorobutadiene	0.76	U F1 *	1.0	0.76	ug/L		09/02/16 09:20	09/06/16 11:38	1
2-Methylnaphthalene	0.88	U F1 *	10	0.88	ug/L		09/02/16 09:20	09/06/16 11:38	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		09/02/16 09:20	09/06/16 11:38	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		09/02/16 09:20	09/06/16 11:38	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		09/02/16 09:20	09/06/16 11:38	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		09/02/16 09:20	09/06/16 11:38	1
Acenaphthylene	0.65	U	10	0.65	ug/L		09/02/16 09:20	09/06/16 11:38	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		09/02/16 09:20	09/06/16 11:38	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		09/02/16 09:20	09/06/16 11:38	1
Acenaphthene	0.88	U	10	0.88	ug/L		09/02/16 09:20	09/06/16 11:38	1
Dibenzofuran	0.85	U	10	0.85	ug/L		09/02/16 09:20	09/06/16 11:38	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		09/02/16 09:20	09/06/16 11:38	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 11:38	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		09/02/16 09:20	09/06/16 11:38	1
Fluorene	0.80	U	10	0.80	ug/L		09/02/16 09:20	09/06/16 11:38	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		09/02/16 09:20	09/06/16 11:38	1
N-Nitrosodiphenylamine	0.74	U F1	10	0.74	ug/L		09/02/16 09:20	09/06/16 11:38	1
4-Bromophenyl phenyl ether	1.0	U F1	10	1.0	ug/L		09/02/16 09:20	09/06/16 11:38	1
Phenanthrene	0.65	U	10	0.65	ug/L		09/02/16 09:20	09/06/16 11:38	1
Anthracene	0.57	U F1	10	0.57	ug/L		09/02/16 09:20	09/06/16 11:38	1
Carbazole	0.85	U F1	10	0.85	ug/L		09/02/16 09:20	09/06/16 11:38	1
Di-n-butyl phthalate	0.82	U F1	10	0.82	ug/L		09/02/16 09:20	09/06/16 11:38	1
Fluoranthene	0.72	U F1	10	0.72	ug/L		09/02/16 09:20	09/06/16 11:38	1
Pyrene	0.83	U	10	0.83	ug/L		09/02/16 09:20	09/06/16 11:38	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		09/02/16 09:20	09/06/16 11:38	1
Chrysene	0.67	U	2.0	0.67	ug/L		09/02/16 09:20	09/06/16 11:38	1
Bis(2-ethylhexyl) phthalate	0.72	U	2.0	0.72	ug/L		09/02/16 09:20	09/06/16 11:38	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		09/02/16 09:20	09/06/16 11:38	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		09/02/16 09:20	09/06/16 11:38	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		09/02/16 09:20	09/06/16 11:38	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		09/02/16 09:20	09/06/16 11:38	1
Acetophenone	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 11:38	1
Benzaldehyde	0.86	U	10	0.86	ug/L		09/02/16 09:20	09/06/16 11:38	1
Caprolactam	1.1	U F1 *	10	1.1	ug/L		09/02/16 09:20	09/06/16 11:38	1
Atrazine	0.77	U F1	2.0	0.77	ug/L		09/02/16 09:20	09/06/16 11:38	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		09/02/16 09:20	09/06/16 11:38	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		09/02/16 09:20	09/06/16 11:38	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		09/02/16 09:20	09/06/16 11:38	1
3,3'-Dichlorobenzidine	1.0	U F1 F2	10	1.0	ug/L		09/02/16 09:20	09/06/16 11:38	1

Client Sample ID: RW-14D(175-185)-082916
Date Collected: 08/29/16 09:40
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.69	U F1	10	0.69	ug/L		09/02/16 09:20	09/06/16 11:38	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*8.3*	*J*	*ug/L*		*6.44*		*09/02/16 09:20*	*09/06/16 11:38*	*1*
Unknown	*16*	*J*	*ug/L*		*7.45*		*09/02/16 09:20*	*09/06/16 11:38*	*1*
Unknown	*10*	*J*	*ug/L*		*7.59*		*09/02/16 09:20*	*09/06/16 11:38*	*1*
Unknown	*6.5*	*J*	*ug/L*		*7.69*		*09/02/16 09:20*	*09/06/16 11:38*	*1*
Benzenesulfonamide, N-butyl-	*1500*	*J N*	*ug/L*		*7.92*	*3622-84-2*	*09/02/16 09:20*	*09/06/16 11:38*	*1*
Unknown	*8.8*	*J*	*ug/L*		*9.30*		*09/02/16 09:20*	*09/06/16 11:38*	*1*
Unknown	*9.1*	*J*	*ug/L*		*13.80*		*09/02/16 09:20*	*09/06/16 11:38*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*57*		*30 - 130*	*09/02/16 09:20*	*09/06/16 11:38*	*1*
Phenol-d5 (Surr)	*21*		*15 - 110*	*09/02/16 09:20*	*09/06/16 11:38*	*1*
Terphenyl-d14 (Surr)	*74*		*30 - 130*	*09/02/16 09:20*	*09/06/16 11:38*	*1*
2,4,6-Tribromophenol (Surr)	*107*		*15 - 110*	*09/02/16 09:20*	*09/06/16 11:38*	*1*
2-Fluorophenol (Surr)	*33*		*15 - 110*	*09/02/16 09:20*	*09/06/16 11:38*	*1*
2-Fluorobiphenyl	*79*		*30 - 130*	*09/02/16 09:20*	*09/06/16 11:38*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 11:58	1
PCB-1016	0.098	U * F1	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 11:58	1
PCB-1221	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 11:58	1
PCB-1232	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 11:58	1
PCB-1242	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 11:58	1
PCB-1248	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 11:58	1
PCB-1254	0.084	U	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 11:58	1
PCB-1260	0.084	U * F1	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 11:58	1
PCB-1262	0.084	U	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 11:58	1
PCB-1268	0.084	U	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 11:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*87*		*30 - 150*	*09/02/16 19:39*	*09/06/16 11:58*	*1*
Tetrachloro-m-xylene	*82*		*30 - 150*	*09/02/16 19:39*	*09/06/16 11:58*	*1*
DCB Decachlorobiphenyl	*98*		*30 - 150*	*09/02/16 19:39*	*09/06/16 11:58*	*1*
DCB Decachlorobiphenyl	*96*		*30 - 150*	*09/02/16 19:39*	*09/06/16 11:58*	*1*

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**43.4**	**D**	2.40	0.60	mg/L			09/12/16 17:24	20
Sulfate	**163**	**D**	12.0	2.10	mg/L			09/12/16 17:24	20

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/06/16 09:51	09/11/16 19:02	2
Arsenic	**8.8**		2.0	0.64	ug/L		09/06/16 09:51	09/11/16 19:02	2
Barium	**30.9**		4.0	1.2	ug/L		09/06/16 09:51	09/11/16 19:02	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/06/16 09:51	09/11/16 19:02	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/06/16 09:51	09/11/16 19:02	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/06/16 09:51	09/11/16 19:02	2

Client Sample ID: RW-14D(175-185)-082916
Date Collected: 08/29/16 09:40
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-4
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1.3	U	4.0	1.3	ug/L		09/06/16 09:51	09/11/16 19:02	2
Copper	**1.4**	**J**	4.0	1.4	ug/L		09/06/16 09:51	09/11/16 19:02	2
Manganese	**608**		8.0	2.5	ug/L		09/06/16 09:51	09/11/16 19:02	2
Nickel	**1.6**	**J**	4.0	1.4	ug/L		09/06/16 09:51	09/11/16 19:02	2
Lead	0.38	U	1.2	0.38	ug/L		09/06/16 09:51	09/11/16 19:02	2
Antimony	0.62	U	2.0	0.62	ug/L		09/06/16 09:51	09/11/16 19:02	2
Selenium	0.73	U	10.0	0.73	ug/L		09/06/16 09:51	09/11/16 19:02	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/06/16 09:51	09/11/16 19:02	2
Zinc	7.0	U	16.0	7.0	ug/L		09/06/16 09:51	09/11/16 19:02	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/06/16 09:51	09/11/16 19:02	2
Sodium	**68200**		200	69.0	ug/L		09/06/16 09:51	09/11/16 19:02	2
Magnesium	**14300**		200	63.6	ug/L		09/06/16 09:51	09/11/16 19:02	2
Potassium	**3960**		200	91.4	ug/L		09/06/16 09:51	09/11/16 19:02	2
Calcium	**64800**		200	60.5	ug/L		09/06/16 09:51	09/11/16 19:02	2
Iron	**26000**		120	42.4	ug/L		09/06/16 09:51	09/11/16 19:02	2
Thallium	0.26	U	0.80	0.26	ug/L		09/06/16 09:51	09/11/16 19:02	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:25	2
Arsenic	**1.1**	**J**	2.0	0.64	ug/L		09/07/16 12:41	09/07/16 17:25	2
Barium	**31.6**		4.0	1.2	ug/L		09/07/16 12:41	09/07/16 17:25	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 12:41	09/07/16 17:25	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 12:41	09/07/16 17:25	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:25	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:25	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 12:41	09/07/16 17:25	2
Manganese	**889**		8.0	2.5	ug/L		09/07/16 12:41	09/07/16 17:25	2
Nickel	1.4	U	4.0	1.4	ug/L		09/07/16 12:41	09/07/16 17:25	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 12:41	09/07/16 17:25	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 12:41	09/07/16 17:25	2
Selenium	0.73	U	10.0	0.73	ug/L		09/07/16 12:41	09/07/16 17:25	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 12:41	09/07/16 17:25	2
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 12:41	09/07/16 17:25	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/07/16 12:41	09/07/16 17:25	2
Sodium	**115000**		200	69.0	ug/L		09/07/16 12:41	09/07/16 17:25	2
Magnesium	**18600**		200	63.6	ug/L		09/07/16 12:41	09/07/16 17:25	2
Potassium	**5690**		200	91.4	ug/L		09/07/16 12:41	09/07/16 17:25	2
Calcium	**93400**		200	60.5	ug/L		09/07/16 12:41	09/07/16 17:25	2
Iron	**3990**	**F1**	120	42.4	ug/L		09/07/16 12:41	09/07/16 17:25	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 12:41	09/07/16 17:25	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:28	09/07/16 13:24	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/08/16 11:54	09/08/16 15:32	1

Client Sample ID: RW-14D(175-185)-082916

Lab Sample ID: 460-119489-4

Date Collected: 08/29/16 09:40

Matrix: Water

Date Received: 08/30/16 19:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0022**	**J**	0.010	0.0020	mg/L		09/07/16 15:17	09/08/16 10:08	1
Bicarbonate Alkalinity as CaCO3	**146**		5.0	5.0	mg/L			09/09/16 13:57	1
Alkalinity	**146**		5.0	5.0	mg/L			09/09/16 13:57	1

Client Sample ID: RW-10A(51-61)-082916

Lab Sample ID: 460-119489-5

Date Collected: 08/29/16 12:20

Matrix: Water

Date Received: 08/30/16 19:30

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			09/02/16 02:28	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			09/02/16 02:28	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			09/02/16 02:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 130*		*09/02/16 02:28*	*1*
4-Bromofluorobenzene	*85*		*70 - 130*		*09/02/16 02:28*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/02/16 13:44	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/02/16 13:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/02/16 13:44	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/02/16 13:44	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/02/16 13:44	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/02/16 13:44	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/02/16 13:44	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/02/16 13:44	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/02/16 13:44	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/02/16 13:44	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/02/16 13:44	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 13:44	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 13:44	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/02/16 13:44	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/02/16 13:44	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/02/16 13:44	1
Acetone	**5.0**		5.0	1.1	ug/L			09/02/16 13:44	1
Benzene	0.090	U	1.0	0.090	ug/L			09/02/16 13:44	1
Bromoform	0.18	U	1.0	0.18	ug/L			09/02/16 13:44	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/02/16 13:44	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			09/02/16 13:44	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/02/16 13:44	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/02/16 13:44	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/02/16 13:44	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/02/16 13:44	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/02/16 13:44	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/02/16 13:44	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/02/16 13:44	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/02/16 13:44	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/02/16 13:44	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Client Sample ID: RW-10A(51-61)-082916
Date Collected: 08/29/16 12:20
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/02/16 13:44	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/02/16 13:44	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/02/16 13:44	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/02/16 13:44	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/02/16 13:44	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/02/16 13:44	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/02/16 13:44	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/02/16 13:44	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/02/16 13:44	1
Styrene	0.17	U	1.0	0.17	ug/L			09/02/16 13:44	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/02/16 13:44	1
Toluene	0.25	U	1.0	0.25	ug/L			09/02/16 13:44	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/02/16 13:44	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/02/16 13:44	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/02/16 13:44	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/02/16 13:44	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/02/16 13:44	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/02/16 13:44	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/02/16 13:44*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*		*09/02/16 13:44*	*1*
4-Bromofluorobenzene	*104*		*70 - 130*		*09/02/16 13:44*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*09/02/16 13:44*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*09/02/16 13:44*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		09/02/16 09:20	09/04/16 21:59	1
Benzo[a]pyrene	0.028	U	0.053	0.028	ug/L		09/02/16 09:20	09/04/16 21:59	1
Benzo[b]fluoranthene	0.013	U	0.053	0.013	ug/L		09/02/16 09:20	09/04/16 21:59	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		09/02/16 09:20	09/04/16 21:59	1
Dibenz(a,h)anthracene	0.023	U	0.053	0.023	ug/L		09/02/16 09:20	09/04/16 21:59	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		09/02/16 09:20	09/04/16 21:59	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		09/02/16 09:20	09/04/16 21:59	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		09/02/16 09:20	09/04/16 21:59	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.44	U	11	0.44	ug/L		09/02/16 09:20	09/06/16 12:37	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		09/02/16 09:20	09/06/16 12:37	1
2-Methylphenol	1.4	U *	11	1.4	ug/L		09/02/16 09:20	09/06/16 12:37	1
4-Methylphenol	0.93	U	11	0.93	ug/L		09/02/16 09:20	09/06/16 12:37	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		09/02/16 09:20	09/06/16 12:37	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		09/02/16 09:20	09/06/16 12:37	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		09/02/16 09:20	09/06/16 12:37	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		09/02/16 09:20	09/06/16 12:37	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		09/02/16 09:20	09/06/16 12:37	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Client Sample ID: RW-10A(51-61)-082916
Date Collected: 08/29/16 12:20
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		09/02/16 09:20	09/06/16 12:37	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		09/02/16 09:20	09/06/16 12:37	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		09/02/16 09:20	09/06/16 12:37	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		09/02/16 09:20	09/06/16 12:37	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		09/02/16 09:20	09/06/16 12:37	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		09/02/16 09:20	09/06/16 12:37	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		09/02/16 09:20	09/06/16 12:37	1
Isophorone	0.71	U	11	0.71	ug/L		09/02/16 09:20	09/06/16 12:37	1
Naphthalene	0.85	U *	11	0.85	ug/L		09/02/16 09:20	09/06/16 12:37	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		09/02/16 09:20	09/06/16 12:37	1
Hexachlorobutadiene	0.81	U *	1.1	0.81	ug/L		09/02/16 09:20	09/06/16 12:37	1
2-Methylnaphthalene	0.94	U *	11	0.94	ug/L		09/02/16 09:20	09/06/16 12:37	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		09/02/16 09:20	09/06/16 12:37	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		09/02/16 09:20	09/06/16 12:37	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		09/02/16 09:20	09/06/16 12:37	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		09/02/16 09:20	09/06/16 12:37	1
Acenaphthylene	0.69	U	11	0.69	ug/L		09/02/16 09:20	09/06/16 12:37	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		09/02/16 09:20	09/06/16 12:37	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		09/02/16 09:20	09/06/16 12:37	1
Acenaphthene	0.94	U	11	0.94	ug/L		09/02/16 09:20	09/06/16 12:37	1
Dibenzofuran	0.90	U	11	0.90	ug/L		09/02/16 09:20	09/06/16 12:37	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		09/02/16 09:20	09/06/16 12:37	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		09/02/16 09:20	09/06/16 12:37	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		09/02/16 09:20	09/06/16 12:37	1
Fluorene	0.85	U	11	0.85	ug/L		09/02/16 09:20	09/06/16 12:37	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		09/02/16 09:20	09/06/16 12:37	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		09/02/16 09:20	09/06/16 12:37	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		09/02/16 09:20	09/06/16 12:37	1
Phenanthrene	0.69	U	11	0.69	ug/L		09/02/16 09:20	09/06/16 12:37	1
Anthracene	0.61	U	11	0.61	ug/L		09/02/16 09:20	09/06/16 12:37	1
Carbazole	0.90	U	11	0.90	ug/L		09/02/16 09:20	09/06/16 12:37	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		09/02/16 09:20	09/06/16 12:37	1
Fluoranthene	0.77	U	11	0.77	ug/L		09/02/16 09:20	09/06/16 12:37	1
Pyrene	0.88	U	11	0.88	ug/L		09/02/16 09:20	09/06/16 12:37	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		09/02/16 09:20	09/06/16 12:37	1
Chrysene	0.71	U	2.1	0.71	ug/L		09/02/16 09:20	09/06/16 12:37	1
Bis(2-ethylhexyl) phthalate	0.77	U	2.1	0.77	ug/L		09/02/16 09:20	09/06/16 12:37	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		09/02/16 09:20	09/06/16 12:37	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		09/02/16 09:20	09/06/16 12:37	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		09/02/16 09:20	09/06/16 12:37	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		09/02/16 09:20	09/06/16 12:37	1
Acetophenone	1.1	U	11	1.1	ug/L		09/02/16 09:20	09/06/16 12:37	1
Benzaldehyde	0.91	U	11	0.91	ug/L		09/02/16 09:20	09/06/16 12:37	1
Caprolactam	1.1	U *	11	1.1	ug/L		09/02/16 09:20	09/06/16 12:37	1
Atrazine	0.82	U	2.1	0.82	ug/L		09/02/16 09:20	09/06/16 12:37	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		09/02/16 09:20	09/06/16 12:37	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		09/02/16 09:20	09/06/16 12:37	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		09/02/16 09:20	09/06/16 12:37	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		09/02/16 09:20	09/06/16 12:37	1

Client Sample ID: RW-10A(51-61)-082916

Date Collected: 08/29/16 12:20
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-5

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		09/02/16 09:20	09/06/16 12:37	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*				*09/02/16 09:20*	*09/06/16 12:37*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*70*		*30 - 130*	*09/02/16 09:20*	*09/06/16 12:37*	*1*
Phenol-d5 (Surr)	*21*		*15 - 110*	*09/02/16 09:20*	*09/06/16 12:37*	*1*
Terphenyl-d14 (Surr)	*86*		*30 - 130*	*09/02/16 09:20*	*09/06/16 12:37*	*1*
2,4,6-Tribromophenol (Surr)	*80*		*15 - 110*	*09/02/16 09:20*	*09/06/16 12:37*	*1*
2-Fluorophenol (Surr)	*39*		*15 - 110*	*09/02/16 09:20*	*09/06/16 12:37*	*1*
2-Fluorobiphenyl	*70*		*30 - 130*	*09/02/16 09:20*	*09/06/16 12:37*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.13	U	0.51	0.13	ug/L		09/02/16 19:39	09/06/16 14:09	1
PCB-1016	0.13	U *	0.51	0.13	ug/L		09/02/16 19:39	09/06/16 14:09	1
PCB-1221	0.13	U	0.51	0.13	ug/L		09/02/16 19:39	09/06/16 14:09	1
PCB-1232	0.13	U	0.51	0.13	ug/L		09/02/16 19:39	09/06/16 14:09	1
PCB-1242	0.13	U	0.51	0.13	ug/L		09/02/16 19:39	09/06/16 14:09	1
PCB-1248	0.13	U	0.51	0.13	ug/L		09/02/16 19:39	09/06/16 14:09	1
PCB-1254	0.11	U	0.51	0.11	ug/L		09/02/16 19:39	09/06/16 14:09	1
PCB-1260	0.11	U *	0.51	0.11	ug/L		09/02/16 19:39	09/06/16 14:09	1
PCB-1262	0.11	U	0.51	0.11	ug/L		09/02/16 19:39	09/06/16 14:09	1
PCB-1268	0.11	U	0.51	0.11	ug/L		09/02/16 19:39	09/06/16 14:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*99*		*30 - 150*	*09/02/16 19:39*	*09/06/16 14:09*	*1*
Tetrachloro-m-xylene	*110*		*30 - 150*	*09/02/16 19:39*	*09/06/16 14:09*	*1*
DCB Decachlorobiphenyl	*108*		*30 - 150*	*09/02/16 19:39*	*09/06/16 14:09*	*1*
DCB Decachlorobiphenyl	*120*		*30 - 150*	*09/02/16 19:39*	*09/06/16 14:09*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**3.70**		0.12	0.030	mg/L			09/11/16 07:44	1

Method: 9056A - Anions, Ion Chromatography - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**50.9**	**D**	3.00	0.53	mg/L			09/13/16 14:46	5

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/06/16 09:51	09/10/16 19:46	2
Arsenic	**0.86**	**J**	2.0	0.64	ug/L		09/06/16 09:51	09/10/16 19:46	2
Barium	**11.4**		4.0	1.2	ug/L		09/06/16 09:51	09/10/16 19:46	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/06/16 09:51	09/10/16 19:46	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/06/16 09:51	09/10/16 19:46	2
Cobalt	**4.2**		4.0	1.3	ug/L		09/06/16 09:51	09/10/16 19:46	2
Chromium	1.3	U	4.0	1.3	ug/L		09/06/16 09:51	09/10/16 19:46	2
Copper	**2.9**	**J**	4.0	1.4	ug/L		09/06/16 09:51	09/10/16 19:46	2
Manganese	**2460**		8.0	2.5	ug/L		09/06/16 09:51	09/10/16 19:46	2

Client Sample ID: RW-10A(51-61)-082916
Date Collected: 08/29/16 12:20
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-5
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	**18.2**		4.0	1.4	ug/L		09/06/16 09:51	09/10/16 19:46	2
Lead	0.38	U	1.2	0.38	ug/L		09/06/16 09:51	09/10/16 19:46	2
Antimony	0.62	U	2.0	0.62	ug/L		09/06/16 09:51	09/10/16 19:46	2
Selenium	0.73	U	10.0	0.73	ug/L		09/06/16 09:51	09/10/16 19:46	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/06/16 09:51	09/10/16 19:46	2
Zinc	7.0	U	16.0	7.0	ug/L		09/06/16 09:51	09/10/16 19:46	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/06/16 09:51	09/10/16 19:46	2
Sodium	**20300**		200	69.0	ug/L		09/06/16 09:51	09/10/16 19:46	2
Magnesium	**15100**		200	63.6	ug/L		09/06/16 09:51	09/10/16 19:46	2
Potassium	**2760**		200	91.4	ug/L		09/06/16 09:51	09/10/16 19:46	2
Calcium	**53300**		200	60.5	ug/L		09/06/16 09:51	09/10/16 19:46	2
Iron	**648**		120	42.4	ug/L		09/06/16 09:51	09/11/16 19:18	2
Thallium	0.26	U	0.80	0.26	ug/L		09/06/16 09:51	09/10/16 19:46	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:48	2
Arsenic	**0.79**	**J**	2.0	0.64	ug/L		09/07/16 12:41	09/07/16 17:48	2
Barium	**10.8**		4.0	1.2	ug/L		09/07/16 12:41	09/07/16 17:48	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 12:41	09/07/16 17:48	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 12:41	09/07/16 17:48	2
Cobalt	**3.4**	**J**	4.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:48	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:48	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 12:41	09/07/16 17:48	2
Manganese	**2310**		8.0	2.5	ug/L		09/07/16 12:41	09/07/16 17:48	2
Nickel	**11.4**		4.0	1.4	ug/L		09/07/16 12:41	09/07/16 17:48	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 12:41	09/07/16 17:48	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 12:41	09/07/16 17:48	2
Selenium	0.73	U	10.0	0.73	ug/L		09/07/16 12:41	09/07/16 17:48	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 12:41	09/07/16 17:48	2
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 12:41	09/07/16 17:48	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/07/16 12:41	09/07/16 17:48	2
Sodium	**17400**		200	69.0	ug/L		09/07/16 12:41	09/07/16 17:48	2
Magnesium	**14200**		200	63.6	ug/L		09/07/16 12:41	09/07/16 17:48	2
Potassium	**2750**		200	91.4	ug/L		09/07/16 12:41	09/07/16 17:48	2
Calcium	**55400**		200	60.5	ug/L		09/07/16 12:41	09/07/16 17:48	2
Iron	42.4	U	120	42.4	ug/L		09/07/16 12:41	09/07/16 17:48	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 12:41	09/07/16 17:48	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:28	09/07/16 14:08	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/08/16 11:54	09/08/16 16:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 15:17	09/08/16 10:17	1

Client Sample ID: RW-10A(51-61)-082916

Lab Sample ID: 460-119489-5

Date Collected: 08/29/16 12:20

Matrix: Water

Date Received: 08/30/16 19:30

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	**185**		5.0	5.0	mg/L			09/09/16 13:57	1
Alkalinity	**185**		5.0	5.0	mg/L			09/09/16 13:57	1

Client Sample ID: RW-10S(120-130)-082916

Lab Sample ID: 460-119489-6

Date Collected: 08/29/16 14:30

Matrix: Water

Date Received: 08/30/16 19:30

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			09/02/16 02:53	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			09/02/16 02:53	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			09/02/16 02:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*09/02/16 02:53*	*1*
4-Bromofluorobenzene	*88*		*70 - 130*		*09/02/16 02:53*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/02/16 14:10	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/02/16 14:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/02/16 14:10	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/02/16 14:10	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/02/16 14:10	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/02/16 14:10	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/02/16 14:10	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/02/16 14:10	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/02/16 14:10	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/02/16 14:10	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/02/16 14:10	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 14:10	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 14:10	1
2-Butanone (MEK)	**4.7**	**J**	5.0	2.2	ug/L			09/02/16 14:10	1
2-Hexanone	**0.75**	**J**	5.0	0.72	ug/L			09/02/16 14:10	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/02/16 14:10	1
Acetone	**48**		5.0	1.1	ug/L			09/02/16 14:10	1
Benzene	0.090	U	1.0	0.090	ug/L			09/02/16 14:10	1
Bromoform	0.18	U	1.0	0.18	ug/L			09/02/16 14:10	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/02/16 14:10	1
Carbon disulfide	**0.53**	**J**	1.0	0.22	ug/L			09/02/16 14:10	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/02/16 14:10	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/02/16 14:10	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/02/16 14:10	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/02/16 14:10	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/02/16 14:10	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/02/16 14:10	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/02/16 14:10	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/02/16 14:10	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/02/16 14:10	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/02/16 14:10	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Client Sample ID: RW-10S(120-130)-082916
Date Collected: 08/29/16 14:30
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/02/16 14:10	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/02/16 14:10	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/02/16 14:10	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/02/16 14:10	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/02/16 14:10	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/02/16 14:10	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/02/16 14:10	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/02/16 14:10	1
Styrene	0.17	U	1.0	0.17	ug/L			09/02/16 14:10	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/02/16 14:10	1
Toluene	0.25	U	1.0	0.25	ug/L			09/02/16 14:10	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/02/16 14:10	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/02/16 14:10	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/02/16 14:10	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/02/16 14:10	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/02/16 14:10	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/02/16 14:10	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Sulfur dioxide	*27*	*J N*	*ug/L*		*0.99*	*7446-09-5*		*09/02/16 14:10*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*		*09/02/16 14:10*	*1*
4-Bromofluorobenzene	*96*		*70 - 130*		*09/02/16 14:10*	*1*
Dibromofluoromethane (Surr)	*95*		*70 - 130*		*09/02/16 14:10*	*1*
Toluene-d8 (Surr)	*96*		*70 - 130*		*09/02/16 14:10*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		09/02/16 09:20	09/06/16 20:34	1
Benzo[a]pyrene	0.028	U	0.053	0.028	ug/L		09/02/16 09:20	09/06/16 20:34	1
Benzo[b]fluoranthene	0.013	U	0.053	0.013	ug/L		09/02/16 09:20	09/06/16 20:34	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		09/02/16 09:20	09/06/16 20:34	1
Dibenz(a,h)anthracene	0.023	U	0.053	0.023	ug/L		09/02/16 09:20	09/06/16 20:34	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		09/02/16 09:20	09/06/16 20:34	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		09/02/16 09:20	09/06/16 20:34	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		09/02/16 09:20	09/06/16 20:34	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	**7.4**	**J**	11	0.44	ug/L		09/02/16 09:20	09/06/16 12:56	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		09/02/16 09:20	09/06/16 12:56	1
2-Methylphenol	1.4	U *	11	1.4	ug/L		09/02/16 09:20	09/06/16 12:56	1
4-Methylphenol	0.93	U	11	0.93	ug/L		09/02/16 09:20	09/06/16 12:56	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		09/02/16 09:20	09/06/16 12:56	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		09/02/16 09:20	09/06/16 12:56	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		09/02/16 09:20	09/06/16 12:56	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		09/02/16 09:20	09/06/16 12:56	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		09/02/16 09:20	09/06/16 12:56	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		09/02/16 09:20	09/06/16 12:56	1

Client Sample ID: RW-10S(120-130)-082916
Date Collected: 08/29/16 14:30
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		09/02/16 09:20	09/06/16 12:56	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		09/02/16 09:20	09/06/16 12:56	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		09/02/16 09:20	09/06/16 12:56	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		09/02/16 09:20	09/06/16 12:56	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		09/02/16 09:20	09/06/16 12:56	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		09/02/16 09:20	09/06/16 12:56	1
Isophorone	**1.3**	**J**	11	0.71	ug/L		09/02/16 09:20	09/06/16 12:56	1
Naphthalene	0.85	U *	11	0.85	ug/L		09/02/16 09:20	09/06/16 12:56	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		09/02/16 09:20	09/06/16 12:56	1
Hexachlorobutadiene	0.81	U *	1.1	0.81	ug/L		09/02/16 09:20	09/06/16 12:56	1
2-Methylnaphthalene	0.94	U *	11	0.94	ug/L		09/02/16 09:20	09/06/16 12:56	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		09/02/16 09:20	09/06/16 12:56	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		09/02/16 09:20	09/06/16 12:56	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		09/02/16 09:20	09/06/16 12:56	1
Dimethyl phthalate	1.0	U	11	1.0	ug/L		09/02/16 09:20	09/06/16 12:56	1
Acenaphthylene	0.69	U	11	0.69	ug/L		09/02/16 09:20	09/06/16 12:56	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		09/02/16 09:20	09/06/16 12:56	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		09/02/16 09:20	09/06/16 12:56	1
Acenaphthene	0.94	U	11	0.94	ug/L		09/02/16 09:20	09/06/16 12:56	1
Dibenzofuran	0.90	U	11	0.90	ug/L		09/02/16 09:20	09/06/16 12:56	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		09/02/16 09:20	09/06/16 12:56	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		09/02/16 09:20	09/06/16 12:56	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		09/02/16 09:20	09/06/16 12:56	1
Fluorene	0.85	U	11	0.85	ug/L		09/02/16 09:20	09/06/16 12:56	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		09/02/16 09:20	09/06/16 12:56	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		09/02/16 09:20	09/06/16 12:56	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		09/02/16 09:20	09/06/16 12:56	1
Phenanthrene	0.69	U	11	0.69	ug/L		09/02/16 09:20	09/06/16 12:56	1
Anthracene	0.61	U	11	0.61	ug/L		09/02/16 09:20	09/06/16 12:56	1
Carbazole	0.90	U	11	0.90	ug/L		09/02/16 09:20	09/06/16 12:56	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		09/02/16 09:20	09/06/16 12:56	1
Fluoranthene	0.77	U	11	0.77	ug/L		09/02/16 09:20	09/06/16 12:56	1
Pyrene	0.88	U	11	0.88	ug/L		09/02/16 09:20	09/06/16 12:56	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		09/02/16 09:20	09/06/16 12:56	1
Chrysene	0.71	U	2.1	0.71	ug/L		09/02/16 09:20	09/06/16 12:56	1
Bis(2-ethylhexyl) phthalate	0.77	U	2.1	0.77	ug/L		09/02/16 09:20	09/06/16 12:56	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		09/02/16 09:20	09/06/16 12:56	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		09/02/16 09:20	09/06/16 12:56	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		09/02/16 09:20	09/06/16 12:56	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		09/02/16 09:20	09/06/16 12:56	1
Acetophenone	1.1	U	11	1.1	ug/L		09/02/16 09:20	09/06/16 12:56	1
Benzaldehyde	0.91	U	11	0.91	ug/L		09/02/16 09:20	09/06/16 12:56	1
Caprolactam	1.1	U *	11	1.1	ug/L		09/02/16 09:20	09/06/16 12:56	1
Atrazine	0.82	U	2.1	0.82	ug/L		09/02/16 09:20	09/06/16 12:56	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		09/02/16 09:20	09/06/16 12:56	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		09/02/16 09:20	09/06/16 12:56	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		09/02/16 09:20	09/06/16 12:56	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		09/02/16 09:20	09/06/16 12:56	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		09/02/16 09:20	09/06/16 12:56	1

Client Sample ID: RW-10S(120-130)-082916

Date Collected: 08/29/16 14:30
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-6

Matrix: Water

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L				09/02/16 09:20	09/06/16 12:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	71		30 - 130	09/02/16 09:20	09/06/16 12:56	1
Phenol-d5 (Surr)	23		15 - 110	09/02/16 09:20	09/06/16 12:56	1
Terphenyl-d14 (Surr)	83		30 - 130	09/02/16 09:20	09/06/16 12:56	1
2,4,6-Tribromophenol (Surr)	80		15 - 110	09/02/16 09:20	09/06/16 12:56	1
2-Fluorophenol (Surr)	38		15 - 110	09/02/16 09:20	09/06/16 12:56	1
2-Fluorobiphenyl	65		30 - 130	09/02/16 09:20	09/06/16 12:56	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.12	U	0.49	0.12	ug/L		09/02/16 19:39	09/06/16 13:54	1
PCB-1016	0.12	U *	0.49	0.12	ug/L		09/02/16 19:39	09/06/16 13:54	1
PCB-1221	0.12	U	0.49	0.12	ug/L		09/02/16 19:39	09/06/16 13:54	1
PCB-1232	0.12	U	0.49	0.12	ug/L		09/02/16 19:39	09/06/16 13:54	1
PCB-1242	0.12	U	0.49	0.12	ug/L		09/02/16 19:39	09/06/16 13:54	1
PCB-1248	0.12	U	0.49	0.12	ug/L		09/02/16 19:39	09/06/16 13:54	1
PCB-1254	0.10	U	0.49	0.10	ug/L		09/02/16 19:39	09/06/16 13:54	1
PCB-1260	0.10	U *	0.49	0.10	ug/L		09/02/16 19:39	09/06/16 13:54	1
PCB-1262	0.10	U	0.49	0.10	ug/L		09/02/16 19:39	09/06/16 13:54	1
PCB-1268	0.10	U	0.49	0.10	ug/L		09/02/16 19:39	09/06/16 13:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	92		30 - 150	09/02/16 19:39	09/06/16 13:54	1
Tetrachloro-m-xylene	104		30 - 150	09/02/16 19:39	09/06/16 13:54	1
DCB Decachlorobiphenyl	107		30 - 150	09/02/16 19:39	09/06/16 13:54	1
DCB Decachlorobiphenyl	123		30 - 150	09/02/16 19:39	09/06/16 13:54	1

Method: 9056A - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.0**	**D**	1.20	0.30	mg/L			09/12/16 18:00	10
Sulfate	**143**	**D F1**	6.00	1.05	mg/L			09/12/16 18:00	10

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/06/16 09:51	09/10/16 19:57	2
Arsenic	**6.6**		2.0	0.64	ug/L		09/06/16 09:51	09/10/16 19:57	2
Barium	**13.1**		4.0	1.2	ug/L		09/06/16 09:51	09/10/16 19:57	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/06/16 09:51	09/10/16 19:57	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/06/16 09:51	09/10/16 19:57	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/06/16 09:51	09/10/16 19:57	2
Chromium	1.3	U	4.0	1.3	ug/L		09/06/16 09:51	09/10/16 19:57	2
Copper	1.4	U	4.0	1.4	ug/L		09/06/16 09:51	09/10/16 19:57	2
Manganese	2.5	U	8.0	2.5	ug/L		09/06/16 09:51	09/10/16 19:57	2
Nickel	**11.4**		4.0	1.4	ug/L		09/06/16 09:51	09/10/16 19:57	2
Lead	0.38	U	1.2	0.38	ug/L		09/06/16 09:51	09/10/16 19:57	2
Antimony	**0.88**	**J**	2.0	0.62	ug/L		09/06/16 09:51	09/10/16 19:57	2
Selenium	**2.5**	**J**	10.0	0.73	ug/L		09/06/16 09:51	09/10/16 19:57	2
Vanadium	**5.9**		4.0	1.9	ug/L		09/06/16 09:51	09/10/16 19:57	2
Zinc	7.0	U	16.0	7.0	ug/L		09/06/16 09:51	09/10/16 19:57	2

Client Sample ID: RW-10S(120-130)-082916
Date Collected: 08/29/16 14:30
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-6
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**114**		40.0	18.2	ug/L		09/06/16 09:51	09/10/16 19:57	2
Sodium	**68800**		200	69.0	ug/L		09/06/16 09:51	09/10/16 19:57	2
Magnesium	63.6	U	200	63.6	ug/L		09/06/16 09:51	09/10/16 19:57	2
Potassium	**21600**		200	91.4	ug/L		09/06/16 09:51	09/10/16 19:57	2
Calcium	**44400**		200	60.5	ug/L		09/06/16 09:51	09/10/16 19:57	2
Iron	42.4	U	120	42.4	ug/L		09/06/16 09:51	09/11/16 19:21	2
Thallium	0.26	U	0.80	0.26	ug/L		09/06/16 09:51	09/10/16 19:57	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:53	2
Arsenic	**7.2**		2.0	0.64	ug/L		09/07/16 12:41	09/07/16 17:53	2
Barium	**12.5**		4.0	1.2	ug/L		09/07/16 12:41	09/07/16 17:53	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 12:41	09/07/16 17:53	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 12:41	09/07/16 17:53	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:53	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:53	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 12:41	09/07/16 17:53	2
Manganese	2.5	U	8.0	2.5	ug/L		09/07/16 12:41	09/07/16 17:53	2
Nickel	**9.3**		4.0	1.4	ug/L		09/07/16 12:41	09/07/16 17:53	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 12:41	09/07/16 17:53	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 12:41	09/07/16 17:53	2
Selenium	**2.5**	**J**	10.0	0.73	ug/L		09/07/16 12:41	09/07/16 17:53	2
Vanadium	**5.8**		4.0	1.9	ug/L		09/07/16 12:41	09/07/16 17:53	2
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 12:41	09/07/16 17:53	2
Aluminum	**100**		40.0	18.2	ug/L		09/07/16 12:41	09/07/16 17:53	2
Sodium	**63600**		200	69.0	ug/L		09/07/16 12:41	09/07/16 17:53	2
Magnesium	63.6	U	200	63.6	ug/L		09/07/16 12:41	09/07/16 17:53	2
Potassium	**22600**		200	91.4	ug/L		09/07/16 12:41	09/07/16 17:53	2
Calcium	**44100**		200	60.5	ug/L		09/07/16 12:41	09/07/16 17:53	2
Iron	42.4	U	120	42.4	ug/L		09/07/16 12:41	09/07/16 17:53	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 12:41	09/07/16 17:53	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:28	09/07/16 14:09	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/08/16 11:54	09/08/16 16:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 15:17	09/08/16 10:18	1
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/09/16 13:57	1
Alkalinity	**130**		5.0	5.0	mg/L			09/09/16 13:57	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Client Sample ID: RW-9A(85-95)-083016
Date Collected: 08/30/16 07:50
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-7
Matrix: Water

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			09/02/16 03:18	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			09/02/16 03:18	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			09/02/16 03:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*70 - 130*		*09/02/16 03:18*	*1*
4-Bromofluorobenzene	*82*		*70 - 130*		*09/02/16 03:18*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/02/16 14:36	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/02/16 14:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/02/16 14:36	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/02/16 14:36	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/02/16 14:36	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/02/16 14:36	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/02/16 14:36	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/02/16 14:36	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/02/16 14:36	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/02/16 14:36	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/02/16 14:36	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 14:36	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 14:36	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/02/16 14:36	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/02/16 14:36	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/02/16 14:36	1
Acetone	**6.7**		5.0	1.1	ug/L			09/02/16 14:36	1
Benzene	0.090	U	1.0	0.090	ug/L			09/02/16 14:36	1
Bromoform	0.18	U	1.0	0.18	ug/L			09/02/16 14:36	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/02/16 14:36	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			09/02/16 14:36	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/02/16 14:36	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/02/16 14:36	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/02/16 14:36	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/02/16 14:36	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/02/16 14:36	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/02/16 14:36	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/02/16 14:36	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/02/16 14:36	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/02/16 14:36	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/02/16 14:36	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/02/16 14:36	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/02/16 14:36	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/02/16 14:36	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/02/16 14:36	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/02/16 14:36	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/02/16 14:36	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/02/16 14:36	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/02/16 14:36	1
Styrene	0.17	U	1.0	0.17	ug/L			09/02/16 14:36	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Client Sample ID: RW-9A(85-95)-083016
Date Collected: 08/30/16 07:50
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/02/16 14:36	1
Toluene	0.25	U	1.0	0.25	ug/L			09/02/16 14:36	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/02/16 14:36	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/02/16 14:36	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/02/16 14:36	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/02/16 14:36	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/02/16 14:36	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/02/16 14:36	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/02/16 14:36*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*09/02/16 14:36*	*1*
4-Bromofluorobenzene	*96*		*70 - 130*		*09/02/16 14:36*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*		*09/02/16 14:36*	*1*
Toluene-d8 (Surr)	*103*		*70 - 130*		*09/02/16 14:36*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.052	0.039	ug/L		09/02/16 09:20	09/06/16 21:04	1
Benzo[a]pyrene	0.027	U	0.052	0.027	ug/L		09/02/16 09:20	09/06/16 21:04	1
Benzo[b]fluoranthene	0.013	U	0.052	0.013	ug/L		09/02/16 09:20	09/06/16 21:04	1
Bis(2-chloroethyl)ether	0.0094	U	0.021	0.0094	ug/L		09/02/16 09:20	09/06/16 21:04	1
Dibenz(a,h)anthracene	0.023	U	0.052	0.023	ug/L		09/02/16 09:20	09/06/16 21:04	1
Hexachlorobenzene	0.0094	U	0.021	0.0094	ug/L		09/02/16 09:20	09/06/16 21:04	1
Indeno[1,2,3-cd]pyrene	0.028	U	0.052	0.028	ug/L		09/02/16 09:20	09/06/16 21:04	1
Pentachlorophenol	0.080	U	0.21	0.080	ug/L		09/02/16 09:20	09/06/16 21:04	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.43	U	10	0.43	ug/L		09/02/16 09:20	09/06/16 20:43	1
2-Chlorophenol	0.77	U	10	0.77	ug/L		09/02/16 09:20	09/06/16 20:43	1
2-Methylphenol	1.3	U *	10	1.3	ug/L		09/02/16 09:20	09/06/16 20:43	1
4-Methylphenol	0.91	U	10	0.91	ug/L		09/02/16 09:20	09/06/16 20:43	1
2-Nitrophenol	0.61	U	10	0.61	ug/L		09/02/16 09:20	09/06/16 20:43	1
2,4-Dimethylphenol	0.95	U	10	0.95	ug/L		09/02/16 09:20	09/06/16 20:43	1
2,4-Dichlorophenol	0.66	U	10	0.66	ug/L		09/02/16 09:20	09/06/16 20:43	1
4-Chloro-3-methylphenol	0.79	U	10	0.79	ug/L		09/02/16 09:20	09/06/16 20:43	1
2,4,6-Trichlorophenol	0.55	U	10	0.55	ug/L		09/02/16 09:20	09/06/16 20:43	1
2,4,5-Trichlorophenol	0.51	U	10	0.51	ug/L		09/02/16 09:20	09/06/16 20:43	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		09/02/16 09:20	09/06/16 20:43	1
4-Nitrophenol	4.8	U	21	4.8	ug/L		09/02/16 09:20	09/06/16 20:43	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		09/02/16 09:20	09/06/16 20:43	1
N-Nitrosodi-n-propylamine	0.86	U	1.0	0.86	ug/L		09/02/16 09:20	09/06/16 20:43	1
Hexachloroethane	0.094	U	1.0	0.094	ug/L		09/02/16 09:20	09/06/16 20:43	1
Nitrobenzene	0.51	U	1.0	0.51	ug/L		09/02/16 09:20	09/06/16 20:43	1
Isophorone	0.70	U	10	0.70	ug/L		09/02/16 09:20	09/06/16 20:43	1
Naphthalene	0.83	U *	10	0.83	ug/L		09/02/16 09:20	09/06/16 20:43	1
4-Chloroaniline	0.76	U	10	0.76	ug/L		09/02/16 09:20	09/06/16 20:43	1

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Client Sample ID: RW-9A(85-95)-083016
Date Collected: 08/30/16 07:50
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	0.79	U *	1.0	0.79	ug/L		09/02/16 09:20	09/06/16 20:43	1
2-Methylnaphthalene	0.92	U *	10	0.92	ug/L		09/02/16 09:20	09/06/16 20:43	1
Hexachlorocyclopentadiene	0.64	U	10	0.64	ug/L		09/02/16 09:20	09/06/16 20:43	1
2-Chloronaphthalene	0.64	U	10	0.64	ug/L		09/02/16 09:20	09/06/16 20:43	1
2-Nitroaniline	0.68	U	10	0.68	ug/L		09/02/16 09:20	09/06/16 20:43	1
Dimethyl phthalate	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 20:43	1
Acenaphthylene	0.68	U	10	0.68	ug/L		09/02/16 09:20	09/06/16 20:43	1
2,6-Dinitrotoluene	0.92	U	2.1	0.92	ug/L		09/02/16 09:20	09/06/16 20:43	1
3-Nitroaniline	0.85	U	10	0.85	ug/L		09/02/16 09:20	09/06/16 20:43	1
Acenaphthene	0.92	U	10	0.92	ug/L		09/02/16 09:20	09/06/16 20:43	1
Dibenzofuran	0.89	U	10	0.89	ug/L		09/02/16 09:20	09/06/16 20:43	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		09/02/16 09:20	09/06/16 20:43	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 20:43	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 20:43	1
Fluorene	0.83	U	10	0.83	ug/L		09/02/16 09:20	09/06/16 20:43	1
4-Nitroaniline	0.50	U	10	0.50	ug/L		09/02/16 09:20	09/06/16 20:43	1
N-Nitrosodiphenylamine	0.77	U	10	0.77	ug/L		09/02/16 09:20	09/06/16 20:43	1
4-Bromophenyl phenyl ether	1.1	U	10	1.1	ug/L		09/02/16 09:20	09/06/16 20:43	1
Phenanthrene	0.68	U	10	0.68	ug/L		09/02/16 09:20	09/06/16 20:43	1
Anthracene	0.59	U	10	0.59	ug/L		09/02/16 09:20	09/06/16 20:43	1
Carbazole	0.89	U	10	0.89	ug/L		09/02/16 09:20	09/06/16 20:43	1
Di-n-butyl phthalate	0.85	U	10	0.85	ug/L		09/02/16 09:20	09/06/16 20:43	1
Fluoranthene	0.75	U	10	0.75	ug/L		09/02/16 09:20	09/06/16 20:43	1
Pyrene	0.86	U	10	0.86	ug/L		09/02/16 09:20	09/06/16 20:43	1
Butyl benzyl phthalate	0.63	U	10	0.63	ug/L		09/02/16 09:20	09/06/16 20:43	1
Chrysene	0.70	U	2.1	0.70	ug/L		09/02/16 09:20	09/06/16 20:43	1
Bis(2-ethylhexyl) phthalate	0.75	U	2.1	0.75	ug/L		09/02/16 09:20	09/06/16 20:43	1
Di-n-octyl phthalate	0.72	U	10	0.72	ug/L		09/02/16 09:20	09/06/16 20:43	1
Benzo[k]fluoranthene	0.19	U	1.0	0.19	ug/L		09/02/16 09:20	09/06/16 20:43	1
Benzo[g,h,i]perylene	0.78	U	10	0.78	ug/L		09/02/16 09:20	09/06/16 20:43	1
1,1'-Biphenyl	0.66	U	10	0.66	ug/L		09/02/16 09:20	09/06/16 20:43	1
Acetophenone	1.1	U	10	1.1	ug/L		09/02/16 09:20	09/06/16 20:43	1
Benzaldehyde	0.90	U	10	0.90	ug/L		09/02/16 09:20	09/06/16 20:43	1
Caprolactam	1.1	U	10	1.1	ug/L		09/02/16 09:20	09/06/16 20:43	1
Atrazine	0.80	U	2.1	0.80	ug/L		09/02/16 09:20	09/06/16 20:43	1
2,2'-oxybis[1-chloropropane]	0.97	U	10	0.97	ug/L		09/02/16 09:20	09/06/16 20:43	1
1,2,4,5-Tetrachlorobenzene	0.45	U	10	0.45	ug/L		09/02/16 09:20	09/06/16 20:43	1
2,3,4,6-Tetrachlorophenol	0.72	U	10	0.72	ug/L		09/02/16 09:20	09/06/16 20:43	1
3,3'-Dichlorobenzidine	1.1	U	10	1.1	ug/L		09/02/16 09:20	09/06/16 20:43	1
Bis(2-chloroethoxy)methane	0.72	U	10	0.72	ug/L		09/02/16 09:20	09/06/16 20:43	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*11*	*J*	*ug/L*		*9.38*		*09/02/16 09:20*	*09/06/16 20:43*	*1*
Unknown	*7.7*	*J*	*ug/L*		*10.07*		*09/02/16 09:20*	*09/06/16 20:43*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*62*		*30 - 130*	*09/02/16 09:20*	*09/06/16 20:43*	*1*
Phenol-d5 (Surr)	*22*		*15 - 110*	*09/02/16 09:20*	*09/06/16 20:43*	*1*
Terphenyl-d14 (Surr)	*80*		*30 - 130*	*09/02/16 09:20*	*09/06/16 20:43*	*1*
2,4,6-Tribromophenol (Surr)	*81*		*15 - 110*	*09/02/16 09:20*	*09/06/16 20:43*	*1*

Client Sample ID: RW-9A(85-95)-083016
Date Collected: 08/30/16 07:50
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol (Surr)	*34*		*15 - 110*	*09/02/16 09:20*	*09/06/16 20:43*	*1*
2-Fluorobiphenyl	*71*		*30 - 130*	*09/02/16 09:20*	*09/06/16 20:43*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.12	U	0.47	0.12	ug/L		09/02/16 19:39	09/06/16 13:39	1
PCB-1016	0.12	U *	0.47	0.12	ug/L		09/02/16 19:39	09/06/16 13:39	1
PCB-1221	0.12	U	0.47	0.12	ug/L		09/02/16 19:39	09/06/16 13:39	1
PCB-1232	0.12	U	0.47	0.12	ug/L		09/02/16 19:39	09/06/16 13:39	1
PCB-1242	0.12	U	0.47	0.12	ug/L		09/02/16 19:39	09/06/16 13:39	1
PCB-1248	0.12	U	0.47	0.12	ug/L		09/02/16 19:39	09/06/16 13:39	1
PCB-1254	0.099	U	0.47	0.099	ug/L		09/02/16 19:39	09/06/16 13:39	1
PCB-1260	0.099	U *	0.47	0.099	ug/L		09/02/16 19:39	09/06/16 13:39	1
PCB-1262	0.099	U	0.47	0.099	ug/L		09/02/16 19:39	09/06/16 13:39	1
PCB-1268	0.099	U	0.47	0.099	ug/L		09/02/16 19:39	09/06/16 13:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*94*		*30 - 150*	*09/02/16 19:39*	*09/06/16 13:39*	*1*
Tetrachloro-m-xylene	*105*		*30 - 150*	*09/02/16 19:39*	*09/06/16 13:39*	*1*
DCB Decachlorobiphenyl	*107*		*30 - 150*	*09/02/16 19:39*	*09/06/16 13:39*	*1*
DCB Decachlorobiphenyl	*111*		*30 - 150*	*09/02/16 19:39*	*09/06/16 13:39*	*1*

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.60**		0.12	0.030	mg/L			09/11/16 08:20	1
Sulfate	**12.3**		0.60	0.11	mg/L			09/11/16 08:20	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/06/16 09:51	09/10/16 19:59	2
Arsenic	**3.0**		2.0	0.64	ug/L		09/06/16 09:51	09/10/16 19:59	2
Barium	**11.3**		4.0	1.2	ug/L		09/06/16 09:51	09/10/16 19:59	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/06/16 09:51	09/10/16 19:59	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/06/16 09:51	09/10/16 19:59	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/06/16 09:51	09/10/16 19:59	2
Chromium	1.3	U	4.0	1.3	ug/L		09/06/16 09:51	09/10/16 19:59	2
Copper	1.4	U	4.0	1.4	ug/L		09/06/16 09:51	09/10/16 19:59	2
Manganese	**35.4**		8.0	2.5	ug/L		09/06/16 09:51	09/10/16 19:59	2
Nickel	**8.2**		4.0	1.4	ug/L		09/06/16 09:51	09/10/16 19:59	2
Lead	0.38	U	1.2	0.38	ug/L		09/06/16 09:51	09/10/16 19:59	2
Antimony	0.62	U	2.0	0.62	ug/L		09/06/16 09:51	09/10/16 19:59	2
Selenium	0.73	U	10.0	0.73	ug/L		09/06/16 09:51	09/10/16 19:59	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/06/16 09:51	09/10/16 19:59	2
Zinc	7.0	U	16.0	7.0	ug/L		09/06/16 09:51	09/10/16 19:59	2
Aluminum	**107**		40.0	18.2	ug/L		09/06/16 09:51	09/10/16 19:59	2
Sodium	**4830**		200	69.0	ug/L		09/06/16 09:51	09/10/16 19:59	2
Magnesium	**5710**		200	63.6	ug/L		09/06/16 09:51	09/10/16 19:59	2
Potassium	**2020**		200	91.4	ug/L		09/06/16 09:51	09/10/16 19:59	2
Calcium	**23400**		200	60.5	ug/L		09/06/16 09:51	09/10/16 19:59	2
Iron	**405**		120	42.4	ug/L		09/06/16 09:51	09/11/16 19:23	2

Client Sample ID: RW-9A(85-95)-083016

Lab Sample ID: 460-119489-7

Date Collected: 08/30/16 07:50

Matrix: Water

Date Received: 08/30/16 19:30

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	0.26	U	0.80	0.26	ug/L		09/06/16 09:51	09/10/16 19:59	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 12:41	09/07/16 13:47	2
Arsenic	**2.9**		2.0	0.64	ug/L		09/07/16 12:41	09/07/16 13:47	2
Barium	**10.1**		4.0	1.2	ug/L		09/07/16 12:41	09/07/16 13:47	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 12:41	09/07/16 13:47	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 12:41	09/07/16 13:47	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 12:41	09/07/16 13:47	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 12:41	09/07/16 13:47	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 12:41	09/07/16 13:47	2
Manganese	**31.6**		8.0	2.5	ug/L		09/07/16 12:41	09/07/16 13:47	2
Nickel	1.4	U	4.0	1.4	ug/L		09/07/16 12:41	09/07/16 13:47	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 12:41	09/07/16 13:47	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 12:41	09/07/16 13:47	2
Selenium	0.73	U	10.0	0.73	ug/L		09/07/16 12:41	09/07/16 13:47	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 12:41	09/07/16 13:47	2
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 12:41	09/07/16 13:47	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/07/16 12:41	09/07/16 13:47	2
Sodium	**4500**		200	69.0	ug/L		09/07/16 12:41	09/07/16 13:47	2
Magnesium	**5390**		200	63.6	ug/L		09/07/16 12:41	09/07/16 13:47	2
Potassium	**1910**	*	200	91.4	ug/L		09/07/16 12:41	09/08/16 19:16	2
Calcium	**24000**		200	60.5	ug/L		09/07/16 12:41	09/07/16 13:47	2
Iron	42.4	U	120	42.4	ug/L		09/07/16 12:41	09/07/16 13:47	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 12:41	09/07/16 13:47	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:28	09/07/16 14:11	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/08/16 11:54	09/08/16 16:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0065**	**J**	0.010	0.0020	mg/L		09/07/16 15:17	09/08/16 10:19	1
Bicarbonate Alkalinity as CaCO3	**81.4**		5.0	5.0	mg/L			09/09/16 13:57	1
Alkalinity	**81.4**		5.0	5.0	mg/L			09/09/16 13:57	1

Client Sample ID: RW-9(206-216)-083016

Lab Sample ID: 460-119489-8

Date Collected: 08/30/16 09:45

Matrix: Water

Date Received: 08/30/16 19:30

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			09/02/16 03:43	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			09/02/16 03:43	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			09/02/16 03:43	1

Client Sample ID: RW-9(206-216)-083016

Date Collected: 08/30/16 09:45
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-8

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*		*09/02/16 03:43*	*1*
4-Bromofluorobenzene	*86*		*70 - 130*		*09/02/16 03:43*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/02/16 15:03	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/02/16 15:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/02/16 15:03	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/02/16 15:03	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/02/16 15:03	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/02/16 15:03	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/02/16 15:03	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/02/16 15:03	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/02/16 15:03	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/02/16 15:03	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/02/16 15:03	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 15:03	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 15:03	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/02/16 15:03	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/02/16 15:03	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/02/16 15:03	1
Acetone	**5.1**		5.0	1.1	ug/L			09/02/16 15:03	1
Benzene	**0.15**	**J**	1.0	0.090	ug/L			09/02/16 15:03	1
Bromoform	0.18	U	1.0	0.18	ug/L			09/02/16 15:03	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/02/16 15:03	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			09/02/16 15:03	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/02/16 15:03	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/02/16 15:03	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/02/16 15:03	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/02/16 15:03	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/02/16 15:03	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/02/16 15:03	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/02/16 15:03	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/02/16 15:03	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/02/16 15:03	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/02/16 15:03	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/02/16 15:03	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/02/16 15:03	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/02/16 15:03	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/02/16 15:03	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/02/16 15:03	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/02/16 15:03	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/02/16 15:03	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/02/16 15:03	1
Styrene	0.17	U	1.0	0.17	ug/L			09/02/16 15:03	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/02/16 15:03	1
Toluene	0.25	U	1.0	0.25	ug/L			09/02/16 15:03	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/02/16 15:03	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/02/16 15:03	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/02/16 15:03	1

Client Sample ID: RW-9(206-216)-083016
Date Collected: 08/30/16 09:45
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/02/16 15:03	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/02/16 15:03	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/02/16 15:03	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*09/02/16 15:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*09/02/16 15:03*	*1*
4-Bromofluorobenzene	*101*		*70 - 130*		*09/02/16 15:03*	*1*
Dibromofluoromethane (Surr)	*93*		*70 - 130*		*09/02/16 15:03*	*1*
Toluene-d8 (Surr)	*107*		*70 - 130*		*09/02/16 15:03*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.039	U	0.053	0.039	ug/L		09/02/16 09:20	09/06/16 21:33	1
Benzo[a]pyrene	0.028	U	0.053	0.028	ug/L		09/02/16 09:20	09/06/16 21:33	1
Benzo[b]fluoranthene	0.013	U	0.053	0.013	ug/L		09/02/16 09:20	09/06/16 21:33	1
Bis(2-chloroethyl)ether	0.0096	U	0.021	0.0096	ug/L		09/02/16 09:20	09/06/16 21:33	1
Dibenz(a,h)anthracene	0.023	U	0.053	0.023	ug/L		09/02/16 09:20	09/06/16 21:33	1
Hexachlorobenzene	0.0096	U	0.021	0.0096	ug/L		09/02/16 09:20	09/06/16 21:33	1
Indeno[1,2,3-cd]pyrene	0.029	U	0.053	0.029	ug/L		09/02/16 09:20	09/06/16 21:33	1
Pentachlorophenol	0.082	U	0.21	0.082	ug/L		09/02/16 09:20	09/06/16 21:33	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.44	U	11	0.44	ug/L		09/02/16 09:20	09/06/16 21:03	1
2-Chlorophenol	0.79	U	11	0.79	ug/L		09/02/16 09:20	09/06/16 21:03	1
2-Methylphenol	1.4	U *	11	1.4	ug/L		09/02/16 09:20	09/06/16 21:03	1
4-Methylphenol	0.93	U	11	0.93	ug/L		09/02/16 09:20	09/06/16 21:03	1
2-Nitrophenol	0.63	U	11	0.63	ug/L		09/02/16 09:20	09/06/16 21:03	1
2,4-Dimethylphenol	0.97	U	11	0.97	ug/L		09/02/16 09:20	09/06/16 21:03	1
2,4-Dichlorophenol	0.67	U	11	0.67	ug/L		09/02/16 09:20	09/06/16 21:03	1
4-Chloro-3-methylphenol	0.81	U	11	0.81	ug/L		09/02/16 09:20	09/06/16 21:03	1
2,4,6-Trichlorophenol	0.56	U	11	0.56	ug/L		09/02/16 09:20	09/06/16 21:03	1
2,4,5-Trichlorophenol	0.52	U	11	0.52	ug/L		09/02/16 09:20	09/06/16 21:03	1
2,4-Dinitrotoluene	1.1	U	2.1	1.1	ug/L		09/02/16 09:20	09/06/16 21:03	1
4-Nitrophenol	4.9	U	21	4.9	ug/L		09/02/16 09:20	09/06/16 21:03	1
4,6-Dinitro-2-methylphenol	2.1	U	21	2.1	ug/L		09/02/16 09:20	09/06/16 21:03	1
N-Nitrosodi-n-propylamine	0.88	U	1.1	0.88	ug/L		09/02/16 09:20	09/06/16 21:03	1
Hexachloroethane	0.096	U	1.1	0.096	ug/L		09/02/16 09:20	09/06/16 21:03	1
Nitrobenzene	0.52	U	1.1	0.52	ug/L		09/02/16 09:20	09/06/16 21:03	1
Isophorone	0.71	U	11	0.71	ug/L		09/02/16 09:20	09/06/16 21:03	1
Naphthalene	0.85	U *	11	0.85	ug/L		09/02/16 09:20	09/06/16 21:03	1
4-Chloroaniline	0.78	U	11	0.78	ug/L		09/02/16 09:20	09/06/16 21:03	1
Hexachlorobutadiene	0.81	U *	1.1	0.81	ug/L		09/02/16 09:20	09/06/16 21:03	1
2-Methylnaphthalene	0.94	U *	11	0.94	ug/L		09/02/16 09:20	09/06/16 21:03	1
Hexachlorocyclopentadiene	0.65	U	11	0.65	ug/L		09/02/16 09:20	09/06/16 21:03	1
2-Chloronaphthalene	0.65	U	11	0.65	ug/L		09/02/16 09:20	09/06/16 21:03	1
2-Nitroaniline	0.69	U	11	0.69	ug/L		09/02/16 09:20	09/06/16 21:03	1

Client Sample ID: RW-9(206-216)-083016
Date Collected: 08/30/16 09:45
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	1.0	U	11	1.0	ug/L		09/02/16 09:20	09/06/16 21:03	1
Acenaphthylene	0.69	U	11	0.69	ug/L		09/02/16 09:20	09/06/16 21:03	1
2,6-Dinitrotoluene	0.94	U	2.1	0.94	ug/L		09/02/16 09:20	09/06/16 21:03	1
3-Nitroaniline	0.87	U	11	0.87	ug/L		09/02/16 09:20	09/06/16 21:03	1
Acenaphthene	0.94	U	11	0.94	ug/L		09/02/16 09:20	09/06/16 21:03	1
Dibenzofuran	0.90	U	11	0.90	ug/L		09/02/16 09:20	09/06/16 21:03	1
2,4-Dinitrophenol	2.5	U	21	2.5	ug/L		09/02/16 09:20	09/06/16 21:03	1
Diethyl phthalate	1.1	U	11	1.1	ug/L		09/02/16 09:20	09/06/16 21:03	1
4-Chlorophenyl phenyl ether	1.0	U	11	1.0	ug/L		09/02/16 09:20	09/06/16 21:03	1
Fluorene	0.85	U	11	0.85	ug/L		09/02/16 09:20	09/06/16 21:03	1
4-Nitroaniline	0.51	U	11	0.51	ug/L		09/02/16 09:20	09/06/16 21:03	1
N-Nitrosodiphenylamine	0.79	U	11	0.79	ug/L		09/02/16 09:20	09/06/16 21:03	1
4-Bromophenyl phenyl ether	1.1	U	11	1.1	ug/L		09/02/16 09:20	09/06/16 21:03	1
Phenanthrene	0.69	U	11	0.69	ug/L		09/02/16 09:20	09/06/16 21:03	1
Anthracene	0.61	U	11	0.61	ug/L		09/02/16 09:20	09/06/16 21:03	1
Carbazole	0.90	U	11	0.90	ug/L		09/02/16 09:20	09/06/16 21:03	1
Di-n-butyl phthalate	0.87	U	11	0.87	ug/L		09/02/16 09:20	09/06/16 21:03	1
Fluoranthene	0.77	U	11	0.77	ug/L		09/02/16 09:20	09/06/16 21:03	1
Pyrene	0.88	U	11	0.88	ug/L		09/02/16 09:20	09/06/16 21:03	1
Butyl benzyl phthalate	0.64	U	11	0.64	ug/L		09/02/16 09:20	09/06/16 21:03	1
Chrysene	0.71	U	2.1	0.71	ug/L		09/02/16 09:20	09/06/16 21:03	1
Bis(2-ethylhexyl) phthalate	0.77	U	2.1	0.77	ug/L		09/02/16 09:20	09/06/16 21:03	1
Di-n-octyl phthalate	0.73	U	11	0.73	ug/L		09/02/16 09:20	09/06/16 21:03	1
Benzo[k]fluoranthene	0.19	U	1.1	0.19	ug/L		09/02/16 09:20	09/06/16 21:03	1
Benzo[g,h,i]perylene	0.80	U	11	0.80	ug/L		09/02/16 09:20	09/06/16 21:03	1
1,1'-Biphenyl	0.67	U	11	0.67	ug/L		09/02/16 09:20	09/06/16 21:03	1
Acetophenone	1.1	U	11	1.1	ug/L		09/02/16 09:20	09/06/16 21:03	1
Benzaldehyde	0.91	U	11	0.91	ug/L		09/02/16 09:20	09/06/16 21:03	1
Caprolactam	1.1	U	11	1.1	ug/L		09/02/16 09:20	09/06/16 21:03	1
Atrazine	0.82	U	2.1	0.82	ug/L		09/02/16 09:20	09/06/16 21:03	1
2,2'-oxybis[1-chloropropane]	0.99	U	11	0.99	ug/L		09/02/16 09:20	09/06/16 21:03	1
1,2,4,5-Tetrachlorobenzene	0.46	U	11	0.46	ug/L		09/02/16 09:20	09/06/16 21:03	1
2,3,4,6-Tetrachlorophenol	0.73	U	11	0.73	ug/L		09/02/16 09:20	09/06/16 21:03	1
3,3'-Dichlorobenzidine	1.1	U	11	1.1	ug/L		09/02/16 09:20	09/06/16 21:03	1
Bis(2-chloroethoxy)methane	0.73	U	11	0.73	ug/L		09/02/16 09:20	09/06/16 21:03	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Benzenesulfonamide, N-butyl-	*17*	*J N*	*ug/L*		*7.85*	*3622-84-2*	*09/02/16 09:20*	*09/06/16 21:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*72*		*30 - 130*	*09/02/16 09:20*	*09/06/16 21:03*	*1*
Phenol-d5 (Surr)	*19*		*15 - 110*	*09/02/16 09:20*	*09/06/16 21:03*	*1*
Terphenyl-d14 (Surr)	*77*		*30 - 130*	*09/02/16 09:20*	*09/06/16 21:03*	*1*
2,4,6-Tribromophenol (Surr)	*77*		*15 - 110*	*09/02/16 09:20*	*09/06/16 21:03*	*1*
2-Fluorophenol (Surr)	*36*		*15 - 110*	*09/02/16 09:20*	*09/06/16 21:03*	*1*
2-Fluorobiphenyl	*70*		*30 - 130*	*09/02/16 09:20*	*09/06/16 21:03*	*1*

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/06/16 09:51	09/10/16 20:02	2

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Client Sample ID: RW-9(206-216)-083016
Date Collected: 08/30/16 09:45
Date Received: 08/30/16 19:30

Lab Sample ID: 460-119489-8
Matrix: Water

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.8**		2.0	0.64	ug/L		09/06/16 09:51	09/10/16 20:02	2
Barium	**59.6**		4.0	1.2	ug/L		09/06/16 09:51	09/10/16 20:02	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/06/16 09:51	09/10/16 20:02	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/06/16 09:51	09/10/16 20:02	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/06/16 09:51	09/10/16 20:02	2
Chromium	1.3	U	4.0	1.3	ug/L		09/06/16 09:51	09/10/16 20:02	2
Copper	1.4	U	4.0	1.4	ug/L		09/06/16 09:51	09/10/16 20:02	2
Manganese	**316**		8.0	2.5	ug/L		09/06/16 09:51	09/10/16 20:02	2
Nickel	**2.3**	**J**	4.0	1.4	ug/L		09/06/16 09:51	09/10/16 20:02	2
Lead	0.38	U	1.2	0.38	ug/L		09/06/16 09:51	09/10/16 20:02	2
Antimony	0.62	U	2.0	0.62	ug/L		09/06/16 09:51	09/10/16 20:02	2
Selenium	0.73	U	10.0	0.73	ug/L		09/06/16 09:51	09/10/16 20:02	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/06/16 09:51	09/10/16 20:02	2
Zinc	7.0	U	16.0	7.0	ug/L		09/06/16 09:51	09/10/16 20:02	2
Aluminum	**62.3**		40.0	18.2	ug/L		09/06/16 09:51	09/10/16 20:02	2
Sodium	**166000**		200	69.0	ug/L		09/06/16 09:51	09/10/16 20:02	2
Magnesium	**16300**		200	63.6	ug/L		09/06/16 09:51	09/10/16 20:02	2
Potassium	**16300**		200	91.4	ug/L		09/06/16 09:51	09/10/16 20:02	2
Calcium	**82700**		200	60.5	ug/L		09/06/16 09:51	09/10/16 20:02	2
Iron	**663**		120	42.4	ug/L		09/06/16 09:51	09/11/16 19:26	2
Thallium	0.26	U	0.80	0.26	ug/L		09/06/16 09:51	09/10/16 20:02	2

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:28	09/07/16 14:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.0068**	**J**	0.010	0.0020	mg/L		09/07/16 15:17	09/08/16 10:35	1

Surrogate Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)	(70-130)
460-119489-1	TB-09-082916	100	103	99	105
460-119489-2	FB-05-082916	94	97	94	100
460-119489-3	RW-14S(135-155)-082916	75	78	74	79
460-119489-4	RW-14D(175-185)-082916	94	99	95	99
460-119489-4 MS	RW-14D(175-185)-082916	96	101	94	101
460-119489-4 MSD	RW-14D(175-185)-082916	99	102	100	99
460-119489-5	RW-10A(51-61)-082916	100	104	98	103
460-119489-6	RW-10S(120-130)-082916	97	96	95	96
460-119489-7	RW-9A(85-95)-083016	98	96	98	103
460-119489-8	RW-9(206-216)-083016	98	101	93	107
LCS 460-388349/4	Lab Control Sample	100	102	95	96
MB 460-388349/6	Method Blank	102	104	103	105

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		12DCE	BFB
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
460-119489-1	TB-09-082916	111	87
460-119489-2	FB-05-082916	113	83
460-119489-3	RW-14S(135-155)-082916	100	86
460-119489-4	RW-14D(175-185)-082916	103	83
460-119489-5	RW-10A(51-61)-082916	105	85
460-119489-6	RW-10S(120-130)-082916	106	88
460-119489-7	RW-9A(85-95)-083016	106	82
460-119489-8	RW-9(206-216)-083016	108	86
LCS 460-388219/5	Lab Control Sample	108	91
LCSD 460-388219/6	Lab Control Sample Dup	109	86
MB 460-388219/9	Method Blank	110	83

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPH	TBP	2FP	FBP
Lab Sample ID	Client Sample ID	(30-130)	(15-110)	(30-130)	(15-110)	(15-110)	(30-130)
460-119489-2	FB-05-082916	77	20	88	69	27	66
460-119489-3	RW-14S(135-155)-082916	65	15	82	86	28	69
460-119489-4	RW-14D(175-185)-082916	57	21	74	107	33	79

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPH	TBP	2FP	FBP
Lab Sample ID	Client Sample ID	(30-130)	(15-110)	(30-130)	(15-110)	(15-110)	(30-130)
460-119489-4 MS	RW-14D(175-185)-082916	61	23	71	86	34	76
460-119489-4 MSD	RW-14D(175-185)-082916	68	25	71	97	34	86
460-119489-5	RW-10A(51-61)-082916	70	21	86	80	39	70
460-119489-6	RW-10S(120-130)-082916	71	23	83	80	38	65
460-119489-7	RW-9A(85-95)-083016	62	22	80	81	34	71
460-119489-8	RW-9(206-216)-083016	72	19	77	77	36	70
LCS 460-388379/2-A	Lab Control Sample	76	22	68	83	33	76
LCS 460-388379/3-A	Lab Control Sample	64	13 X	69	71	36	60
MB 460-388379/1-A	Method Blank	79	19	83	71	42	59

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
2FP = 2-Fluorophenol (Surr)
FBP = 2-Fluorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TCX1	TCX2	DCB1	DCB2
Lab Sample ID	Client Sample ID	(30-150)	(30-150)	(30-150)	(30-150)
460-119489-2	FB-05-082916	90	101	86	95
460-119489-3	RW-14S(135-155)-082916	80	99	88	100
460-119489-4	RW-14D(175-185)-082916	87	82	98	96
460-119489-4 MS	RW-14D(175-185)-082916	122	121	122	121
460-119489-4 MSD	RW-14D(175-185)-082916	129	139	128	141
460-119489-5	RW-10A(51-61)-082916	99	110	108	120
460-119489-6	RW-10S(120-130)-082916	92	104	107	123
460-119489-7	RW-9A(85-95)-083016	94	105	107	111
LCS 460-388507/2-A	Lab Control Sample	110	125	120	137
MB 460-388507/1-A	Method Blank	126	128	142	147

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 460-388349/6
Matrix: Water
Analysis Batch: 388349

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.0	0.28	ug/L			09/02/16 10:40	1
1,1,2,2-Tetrachloroethane	0.19	U	1.0	0.19	ug/L			09/02/16 10:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	1.0	0.34	ug/L			09/02/16 10:40	1
1,1,2-Trichloroethane	0.080	U	1.0	0.080	ug/L			09/02/16 10:40	1
1,1-Dichloroethane	0.24	U	1.0	0.24	ug/L			09/02/16 10:40	1
1,1-Dichloroethene	0.34	U	1.0	0.34	ug/L			09/02/16 10:40	1
1,2,3-Trichlorobenzene	0.35	U	1.0	0.35	ug/L			09/02/16 10:40	1
1,2,4-Trichlorobenzene	0.27	U	1.0	0.27	ug/L			09/02/16 10:40	1
1,2-Dichlorobenzene	0.22	U	1.0	0.22	ug/L			09/02/16 10:40	1
1,2-Dichloroethane	0.25	U	1.0	0.25	ug/L			09/02/16 10:40	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			09/02/16 10:40	1
1,3-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 10:40	1
1,4-Dichlorobenzene	0.33	U	1.0	0.33	ug/L			09/02/16 10:40	1
2-Butanone (MEK)	2.2	U	5.0	2.2	ug/L			09/02/16 10:40	1
2-Hexanone	0.72	U	5.0	0.72	ug/L			09/02/16 10:40	1
4-Methyl-2-pentanone (MIBK)	0.63	U	5.0	0.63	ug/L			09/02/16 10:40	1
Acetone	1.1	U	5.0	1.1	ug/L			09/02/16 10:40	1
Benzene	0.090	U	1.0	0.090	ug/L			09/02/16 10:40	1
Bromoform	0.18	U	1.0	0.18	ug/L			09/02/16 10:40	1
Bromomethane	0.18	U	1.0	0.18	ug/L			09/02/16 10:40	1
Carbon disulfide	0.22	U	1.0	0.22	ug/L			09/02/16 10:40	1
Carbon tetrachloride	0.33	U	1.0	0.33	ug/L			09/02/16 10:40	1
Chlorobenzene	0.24	U	1.0	0.24	ug/L			09/02/16 10:40	1
Chlorobromomethane	0.30	U	1.0	0.30	ug/L			09/02/16 10:40	1
Chlorodibromomethane	0.22	U	1.0	0.22	ug/L			09/02/16 10:40	1
Chloroethane	0.37	U	1.0	0.37	ug/L			09/02/16 10:40	1
Chloroform	0.22	U	1.0	0.22	ug/L			09/02/16 10:40	1
Chloromethane	0.22	U	1.0	0.22	ug/L			09/02/16 10:40	1
cis-1,2-Dichloroethene	0.26	U	1.0	0.26	ug/L			09/02/16 10:40	1
cis-1,3-Dichloropropene	0.16	U	1.0	0.16	ug/L			09/02/16 10:40	1
Cyclohexane	0.26	U	1.0	0.26	ug/L			09/02/16 10:40	1
Dichlorobromomethane	0.15	U	1.0	0.15	ug/L			09/02/16 10:40	1
Dichlorodifluoromethane	0.14	U	1.0	0.14	ug/L			09/02/16 10:40	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			09/02/16 10:40	1
Isopropylbenzene	0.32	U	1.0	0.32	ug/L			09/02/16 10:40	1
Methyl acetate	0.58	U	5.0	0.58	ug/L			09/02/16 10:40	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/L			09/02/16 10:40	1
Methylcyclohexane	0.22	U	1.0	0.22	ug/L			09/02/16 10:40	1
Methylene Chloride	0.21	U	1.0	0.21	ug/L			09/02/16 10:40	1
Styrene	0.17	U	1.0	0.17	ug/L			09/02/16 10:40	1
Tetrachloroethene	0.12	U	1.0	0.12	ug/L			09/02/16 10:40	1
Toluene	0.25	U	1.0	0.25	ug/L			09/02/16 10:40	1
trans-1,2-Dichloroethene	0.18	U	1.0	0.18	ug/L			09/02/16 10:40	1
trans-1,3-Dichloropropene	0.19	U	1.0	0.19	ug/L			09/02/16 10:40	1
Trichloroethene	0.22	U	1.0	0.22	ug/L			09/02/16 10:40	1
Trichlorofluoromethane	0.15	U	1.0	0.15	ug/L			09/02/16 10:40	1
Vinyl chloride	0.060	U	1.0	0.060	ug/L			09/02/16 10:40	1
Xylenes, Total	0.28	U	2.0	0.28	ug/L			09/02/16 10:40	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ug/L					09/02/16 10:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		09/02/16 10:40	1
4-Bromofluorobenzene	104		70 - 130		09/02/16 10:40	1
Dibromofluoromethane (Surr)	103		70 - 130		09/02/16 10:40	1
Toluene-d8 (Surr)	105		70 - 130		09/02/16 10:40	1

Lab Sample ID: LCS 460-388349/4
Matrix: Water
Analysis Batch: 388349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	17.9		ug/L		90	70 - 130
1,1,2,2-Tetrachloroethane	20.0	21.1		ug/L		106	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	18.0		ug/L		90	70 - 130
1,1,2-Trichloroethane	20.0	19.5		ug/L		98	70 - 130
1,1-Dichloroethane	20.0	18.6		ug/L		93	70 - 130
1,1-Dichloroethene	20.0	16.2		ug/L		81	70 - 130
1,2,3-Trichlorobenzene	20.0	19.9		ug/L		99	70 - 130
1,2,4-Trichlorobenzene	20.0	19.1		ug/L		95	70 - 130
1,2-Dichlorobenzene	20.0	19.0		ug/L		95	70 - 130
1,2-Dichloroethane	20.0	19.5		ug/L		98	70 - 130
1,2-Dichloropropane	20.0	19.7		ug/L		99	70 - 130
1,3-Dichlorobenzene	20.0	18.4		ug/L		92	70 - 130
1,4-Dichlorobenzene	20.0	18.4		ug/L		92	70 - 130
2-Butanone (MEK)	100	90.5		ug/L		90	40 - 160
2-Hexanone	100	100		ug/L		100	40 - 160
4-Methyl-2-pentanone (MIBK)	100	98.1		ug/L		98	40 - 160
Acetone	100	79.8		ug/L		80	40 - 160
Benzene	20.0	19.4		ug/L		97	70 - 130
Bromoform	20.0	15.5		ug/L		78	70 - 130
Bromomethane	20.0	17.8		ug/L		89	40 - 160
Carbon disulfide	20.0	13.7		ug/L		69	40 - 160
Carbon tetrachloride	20.0	15.6		ug/L		78	70 - 130
Chlorobenzene	20.0	19.2		ug/L		96	70 - 130
Chlorobromomethane	20.0	17.6		ug/L		88	70 - 130
Chlorodibromomethane	20.0	16.3		ug/L		82	70 - 130
Chloroethane	20.0	21.6		ug/L		108	40 - 160
Chloroform	20.0	18.6		ug/L		93	70 - 130
Chloromethane	20.0	21.7		ug/L		109	40 - 160
cis-1,2-Dichloroethene	20.0	18.0		ug/L		90	70 - 130
cis-1,3-Dichloropropene	20.0	18.3		ug/L		91	70 - 130
Cyclohexane	20.0	17.6		ug/L		88	70 - 130
Dichlorobromomethane	20.0	17.6		ug/L		88	70 - 130
Dichlorodifluoromethane	20.0	20.5		ug/L		103	40 - 160
Ethylbenzene	20.0	19.3		ug/L		96	70 - 130
Isopropylbenzene	20.0	18.9		ug/L		94	70 - 130
Methyl acetate	100	112		ug/L		112	70 - 130
Methyl tert-butyl ether	20.0	20.7		ug/L		104	70 - 130
Methylcyclohexane	20.0	17.8		ug/L		89	70 - 130
Methylene Chloride	20.0	17.5		ug/L		87	70 - 130

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-388349/4
Matrix: Water
Analysis Batch: 388349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Styrene	20.0	20.3		ug/L		101	70 - 130
Tetrachloroethene	20.0	16.4		ug/L		82	70 - 130
Toluene	20.0	18.6		ug/L		93	70 - 130
trans-1,2-Dichloroethene	20.0	16.6		ug/L		83	70 - 130
trans-1,3-Dichloropropene	20.0	18.1		ug/L		91	70 - 130
Trichloroethene	20.0	17.6		ug/L		88	70 - 130
Trichlorofluoromethane	20.0	21.8		ug/L		109	40 - 160
Vinyl chloride	20.0	21.9		ug/L		110	70 - 130
Xylenes, Total	40.0	38.2		ug/L		95	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 130*
4-Bromofluorobenzene	*102*		*70 - 130*
Dibromofluoromethane (Surr)	*95*		*70 - 130*
Toluene-d8 (Surr)	*96*		*70 - 130*

Lab Sample ID: 460-119489-4 MS
Matrix: Water
Analysis Batch: 388349

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	0.28	U	20.0	17.8		ug/L		89	70 - 130
1,1,2,2-Tetrachloroethane	0.19	U	20.0	19.2		ug/L		96	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	20.0	18.0		ug/L		90	70 - 130
1,1,2-Trichloroethane	0.080	U	20.0	18.6		ug/L		93	70 - 130
1,1-Dichloroethane	0.24	U	20.0	19.0		ug/L		95	70 - 130
1,1-Dichloroethene	0.34	U	20.0	17.7		ug/L		88	70 - 130
1,2,3-Trichlorobenzene	0.35	U	20.0	17.4		ug/L		87	70 - 130
1,2,4-Trichlorobenzene	0.27	U	20.0	16.7		ug/L		84	70 - 130
1,2-Dichlorobenzene	0.22	U	20.0	17.7		ug/L		88	70 - 130
1,2-Dichloroethane	0.25	U	20.0	18.4		ug/L		92	70 - 130
1,2-Dichloropropane	0.18	U	20.0	18.9		ug/L		95	70 - 130
1,3-Dichlorobenzene	0.33	U	20.0	17.8		ug/L		89	70 - 130
1,4-Dichlorobenzene	0.33	U	20.0	17.5		ug/L		88	70 - 130
2-Butanone (MEK)	3.5	J	100	85.2		ug/L		82	40 - 160
2-Hexanone	0.72	U	100	92.9		ug/L		93	40 - 160
4-Methyl-2-pentanone (MIBK)	0.63	U	100	95.7		ug/L		96	40 - 160
Acetone	15		100	89.5		ug/L		75	40 - 160
Benzene	0.31	J	20.0	20.2		ug/L		99	70 - 130
Bromoform	0.18	U F1	20.0	12.3	F1	ug/L		62	70 - 130
Bromomethane	0.18	U	20.0	21.3		ug/L		107	40 - 160
Carbon disulfide	1.0		20.0	13.7		ug/L		64	40 - 160
Carbon tetrachloride	0.33	U	20.0	16.3		ug/L		81	70 - 130
Chlorobenzene	0.24	U	20.0	18.6		ug/L		93	70 - 130
Chlorobromomethane	0.30	U	20.0	17.6		ug/L		88	70 - 130
Chlorodibromomethane	0.22	U	20.0	14.5		ug/L		72	70 - 130
Chloroethane	0.37	U	20.0	27.6		ug/L		138	40 - 160

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-119489-4 MS
Matrix: Water
Analysis Batch: 388349

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	0.22	U	20.0	18.8		ug/L		94	70 - 130
Chloromethane	0.22	U	20.0	21.9		ug/L		110	40 - 160
cis-1,2-Dichloroethene	0.26	U	20.0	18.2		ug/L		91	70 - 130
cis-1,3-Dichloropropene	0.16	U	20.0	17.1		ug/L		85	70 - 130
Cyclohexane	0.26	U	20.0	19.2		ug/L		96	70 - 130
Dichlorobromomethane	0.15	U	20.0	16.3		ug/L		81	70 - 130
Dichlorodifluoromethane	0.14	U	20.0	12.7		ug/L		63	40 - 160
Ethylbenzene	0.30	U	20.0	19.1		ug/L		95	70 - 130
Isopropylbenzene	0.32	U	20.0	19.5		ug/L		97	70 - 130
Methyl acetate	0.58	U	100	92.3		ug/L		92	70 - 130
Methyl tert-butyl ether	0.13	U	20.0	19.3		ug/L		96	70 - 130
Methylcyclohexane	0.22	U	20.0	18.4		ug/L		92	70 - 130
Methylene Chloride	0.21	U	20.0	17.2		ug/L		86	70 - 130
Styrene	0.17	U	20.0	19.2		ug/L		96	70 - 130
Tetrachloroethene	0.12	U	20.0	16.9		ug/L		85	70 - 130
Toluene	0.85	J	20.0	19.4		ug/L		93	70 - 130
trans-1,2-Dichloroethene	0.18	U	20.0	17.3		ug/L		87	70 - 130
trans-1,3-Dichloropropene	0.19	U	20.0	16.6		ug/L		83	70 - 130
Trichloroethene	0.22	U	20.0	17.6		ug/L		88	70 - 130
Trichlorofluoromethane	0.15	U	20.0	17.7		ug/L		88	40 - 160
Vinyl chloride	0.060	U	20.0	20.6		ug/L		103	70 - 130
Xylenes, Total	0.28	U	40.0	37.1		ug/L		93	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*
4-Bromofluorobenzene	*101*		*70 - 130*
Dibromofluoromethane (Surr)	*94*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: 460-119489-4 MSD
Matrix: Water
Analysis Batch: 388349

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.28	U	20.0	18.3		ug/L		91	70 - 130	2	20
1,1,2,2-Tetrachloroethane	0.19	U	20.0	19.0		ug/L		95	70 - 130	1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	0.34	U	20.0	16.3		ug/L		81	70 - 130	10	20
1,1,2-Trichloroethane	0.080	U	20.0	19.0		ug/L		95	70 - 130	2	20
1,1-Dichloroethane	0.24	U	20.0	19.5		ug/L		97	70 - 130	2	20
1,1-Dichloroethene	0.34	U	20.0	18.0		ug/L		90	70 - 130	2	20
1,2,3-Trichlorobenzene	0.35	U	20.0	17.5		ug/L		87	70 - 130	0	20
1,2,4-Trichlorobenzene	0.27	U	20.0	17.0		ug/L		85	70 - 130	1	20
1,2-Dichlorobenzene	0.22	U	20.0	17.9		ug/L		90	70 - 130	1	20
1,2-Dichloroethane	0.25	U	20.0	17.8		ug/L		89	70 - 130	3	20
1,2-Dichloropropane	0.18	U	20.0	19.4		ug/L		97	70 - 130	2	20
1,3-Dichlorobenzene	0.33	U	20.0	18.2		ug/L		91	70 - 130	2	20
1,4-Dichlorobenzene	0.33	U	20.0	17.6		ug/L		88	70 - 130	0	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 460-119489-4 MSD
Matrix: Water
Analysis Batch: 388349

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Butanone (MEK)	3.5	J	100	88.5		ug/L		85	40 - 160	4	20
2-Hexanone	0.72	U	100	94.9		ug/L		95	40 - 160	2	20
4-Methyl-2-pentanone (MIBK)	0.63	U	100	96.4		ug/L		96	40 - 160	1	20
Acetone	15		100	87.3		ug/L		72	40 - 160	3	20
Benzene	0.31	J	20.0	19.8		ug/L		98	70 - 130	2	20
Bromoform	0.18	U F1	20.0	12.8	F1	ug/L		64	70 - 130	4	20
Bromomethane	0.18	U	20.0	24.9		ug/L		125	40 - 160	16	20
Carbon disulfide	1.0		20.0	14.5		ug/L		67	40 - 160	5	20
Carbon tetrachloride	0.33	U	20.0	15.8		ug/L		79	70 - 130	3	20
Chlorobenzene	0.24	U	20.0	18.7		ug/L		94	70 - 130	1	20
Chlorobromomethane	0.30	U	20.0	17.9		ug/L		89	70 - 130	1	20
Chlorodibromomethane	0.22	U	20.0	15.1		ug/L		76	70 - 130	4	20
Chloroethane	0.37	U	20.0	27.9		ug/L		140	40 - 160	1	20
Chloroform	0.22	U	20.0	19.0		ug/L		95	70 - 130	1	20
Chloromethane	0.22	U	20.0	21.9		ug/L		109	40 - 160	0	20
cis-1,2-Dichloroethene	0.26	U	20.0	17.7		ug/L		89	70 - 130	2	20
cis-1,3-Dichloropropene	0.16	U	20.0	17.1		ug/L		86	70 - 130	0	20
Cyclohexane	0.26	U	20.0	17.8		ug/L		89	70 - 130	8	20
Dichlorobromomethane	0.15	U	20.0	16.5		ug/L		83	70 - 130	2	20
Dichlorodifluoromethane	0.14	U	20.0	11.4		ug/L		57	40 - 160	10	20
Ethylbenzene	0.30	U	20.0	18.7		ug/L		93	70 - 130	2	20
Isopropylbenzene	0.32	U	20.0	19.0		ug/L		95	70 - 130	2	20
Methyl acetate	0.58	U	100	91.0		ug/L		91	70 - 130	1	20
Methyl tert-butyl ether	0.13	U	20.0	19.2		ug/L		96	70 - 130	0	20
Methylcyclohexane	0.22	U	20.0	16.1		ug/L		80	70 - 130	14	20
Methylene Chloride	0.21	U	20.0	17.4		ug/L		87	70 - 130	1	20
Styrene	0.17	U	20.0	19.1		ug/L		95	70 - 130	1	20
Tetrachloroethene	0.12	U	20.0	16.7		ug/L		84	70 - 130	1	20
Toluene	0.85	J	20.0	18.9		ug/L		90	70 - 130	3	20
trans-1,2-Dichloroethene	0.18	U	20.0	17.5		ug/L		88	70 - 130	1	20
trans-1,3-Dichloropropene	0.19	U	20.0	16.8		ug/L		84	70 - 130	2	20
Trichloroethene	0.22	U	20.0	17.2		ug/L		86	70 - 130	2	20
Trichlorofluoromethane	0.15	U	20.0	17.5		ug/L		87	40 - 160	1	20
Vinyl chloride	0.060	U	20.0	21.2		ug/L		106	70 - 130	3	20
Xylenes, Total	0.28	U	40.0	37.4		ug/L		94	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*
4-Bromofluorobenzene	*102*		*70 - 130*
Dibromofluoromethane (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-388219/9
Matrix: Water
Analysis Batch: 388219

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.0070	U	0.020	0.0070	ug/L			09/01/16 20:38	1
Ethylene Dibromide	0.0060	U	0.020	0.0060	ug/L			09/01/16 20:38	1
1,2,3-Trichloropropane	0.011	U	0.030	0.011	ug/L			09/01/16 20:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*70 - 130*		*09/01/16 20:38*	*1*
4-Bromofluorobenzene	*83*		*70 - 130*		*09/01/16 20:38*	*1*

Lab Sample ID: LCS 460-388219/5
Matrix: Water
Analysis Batch: 388219

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromo-3-Chloropropane	0.500	0.249		ug/L		50	40 - 160
Ethylene Dibromide	0.500	0.468		ug/L		94	70 - 130
1,2,3-Trichloropropane	0.500	0.415		ug/L		83	40 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*70 - 130*
4-Bromofluorobenzene	*91*		*70 - 130*

Lab Sample ID: LCSD 460-388219/6
Matrix: Water
Analysis Batch: 388219

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.500	0.235		ug/L		47	40 - 160	6	20
Ethylene Dibromide	0.500	0.458		ug/L		92	70 - 130	2	20
1,2,3-Trichloropropane	0.500	0.402		ug/L		80	40 - 160	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 130*
4-Bromofluorobenzene	*86*		*70 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-388379/1-A
Matrix: Water
Analysis Batch: 388720

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388379

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	0.41	U	10	0.41	ug/L		09/02/16 09:20	09/06/16 08:14	1
2-Chlorophenol	0.74	U	10	0.74	ug/L		09/02/16 09:20	09/06/16 08:14	1
2-Methylphenol	1.3	U	10	1.3	ug/L		09/02/16 09:20	09/06/16 08:14	1
4-Methylphenol	0.87	U	10	0.87	ug/L		09/02/16 09:20	09/06/16 08:14	1
2-Nitrophenol	0.59	U	10	0.59	ug/L		09/02/16 09:20	09/06/16 08:14	1
2,4-Dimethylphenol	0.91	U	10	0.91	ug/L		09/02/16 09:20	09/06/16 08:14	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-388379/1-A
Matrix: Water
Analysis Batch: 388720

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388379

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	0.63	U	10	0.63	ug/L		09/02/16 09:20	09/06/16 08:14	1
4-Chloro-3-methylphenol	0.76	U	10	0.76	ug/L		09/02/16 09:20	09/06/16 08:14	1
2,4,6-Trichlorophenol	0.53	U	10	0.53	ug/L		09/02/16 09:20	09/06/16 08:14	1
2,4,5-Trichlorophenol	0.49	U	10	0.49	ug/L		09/02/16 09:20	09/06/16 08:14	1
2,4-Dinitrotoluene	1.0	U	2.0	1.0	ug/L		09/02/16 09:20	09/06/16 08:14	1
4-Nitrophenol	4.7	U	20	4.7	ug/L		09/02/16 09:20	09/06/16 08:14	1
4,6-Dinitro-2-methylphenol	2.0	U	20	2.0	ug/L		09/02/16 09:20	09/06/16 08:14	1
Pentachlorophenol	2.2	U	20	2.2	ug/L		09/02/16 09:20	09/06/16 08:14	1
Bis(2-chloroethyl)ether	0.12	U	1.0	0.12	ug/L		09/02/16 09:20	09/06/16 08:14	1
N-Nitrosodi-n-propylamine	0.83	U	1.0	0.83	ug/L		09/02/16 09:20	09/06/16 08:14	1
Hexachloroethane	0.090	U	1.0	0.090	ug/L		09/02/16 09:20	09/06/16 08:14	1
Nitrobenzene	0.49	U	1.0	0.49	ug/L		09/02/16 09:20	09/06/16 08:14	1
Isophorone	0.67	U	10	0.67	ug/L		09/02/16 09:20	09/06/16 08:14	1
Naphthalene	0.80	U	10	0.80	ug/L		09/02/16 09:20	09/06/16 08:14	1
4-Chloroaniline	0.73	U	10	0.73	ug/L		09/02/16 09:20	09/06/16 08:14	1
Hexachlorobutadiene	0.76	U	1.0	0.76	ug/L		09/02/16 09:20	09/06/16 08:14	1
2-Methylnaphthalene	0.88	U	10	0.88	ug/L		09/02/16 09:20	09/06/16 08:14	1
Hexachlorocyclopentadiene	0.61	U	10	0.61	ug/L		09/02/16 09:20	09/06/16 08:14	1
2-Chloronaphthalene	0.61	U	10	0.61	ug/L		09/02/16 09:20	09/06/16 08:14	1
2-Nitroaniline	0.65	U	10	0.65	ug/L		09/02/16 09:20	09/06/16 08:14	1
Dimethyl phthalate	0.98	U	10	0.98	ug/L		09/02/16 09:20	09/06/16 08:14	1
Acenaphthylene	0.65	U	10	0.65	ug/L		09/02/16 09:20	09/06/16 08:14	1
2,6-Dinitrotoluene	0.88	U	2.0	0.88	ug/L		09/02/16 09:20	09/06/16 08:14	1
3-Nitroaniline	0.82	U	10	0.82	ug/L		09/02/16 09:20	09/06/16 08:14	1
Acenaphthene	0.88	U	10	0.88	ug/L		09/02/16 09:20	09/06/16 08:14	1
Dibenzofuran	0.85	U	10	0.85	ug/L		09/02/16 09:20	09/06/16 08:14	1
2,4-Dinitrophenol	2.4	U	20	2.4	ug/L		09/02/16 09:20	09/06/16 08:14	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 08:14	1
4-Chlorophenyl phenyl ether	0.96	U	10	0.96	ug/L		09/02/16 09:20	09/06/16 08:14	1
Fluorene	0.80	U	10	0.80	ug/L		09/02/16 09:20	09/06/16 08:14	1
4-Nitroaniline	0.48	U	10	0.48	ug/L		09/02/16 09:20	09/06/16 08:14	1
N-Nitrosodiphenylamine	0.74	U	10	0.74	ug/L		09/02/16 09:20	09/06/16 08:14	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 08:14	1
Hexachlorobenzene	0.47	U	1.0	0.47	ug/L		09/02/16 09:20	09/06/16 08:14	1
Phenanthrene	0.65	U	10	0.65	ug/L		09/02/16 09:20	09/06/16 08:14	1
Anthracene	0.57	U	10	0.57	ug/L		09/02/16 09:20	09/06/16 08:14	1
Carbazole	0.85	U	10	0.85	ug/L		09/02/16 09:20	09/06/16 08:14	1
Di-n-butyl phthalate	0.82	U	10	0.82	ug/L		09/02/16 09:20	09/06/16 08:14	1
Fluoranthene	0.72	U	10	0.72	ug/L		09/02/16 09:20	09/06/16 08:14	1
Pyrene	0.83	U	10	0.83	ug/L		09/02/16 09:20	09/06/16 08:14	1
Butyl benzyl phthalate	0.60	U	10	0.60	ug/L		09/02/16 09:20	09/06/16 08:14	1
Benzo[a]anthracene	0.55	U	1.0	0.55	ug/L		09/02/16 09:20	09/06/16 08:14	1
Chrysene	0.67	U	2.0	0.67	ug/L		09/02/16 09:20	09/06/16 08:14	1
Bis(2-ethylhexyl) phthalate	0.72	U	2.0	0.72	ug/L		09/02/16 09:20	09/06/16 08:14	1
Di-n-octyl phthalate	0.69	U	10	0.69	ug/L		09/02/16 09:20	09/06/16 08:14	1
Benzo[b]fluoranthene	0.44	U	1.0	0.44	ug/L		09/02/16 09:20	09/06/16 08:14	1
Benzo[k]fluoranthene	0.18	U	1.0	0.18	ug/L		09/02/16 09:20	09/06/16 08:14	1
Benzo[a]pyrene	0.16	U	1.0	0.16	ug/L		09/02/16 09:20	09/06/16 08:14	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-388379/1-A
Matrix: Water
Analysis Batch: 388720

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388379

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	0.21	U	1.0	0.21	ug/L		09/02/16 09:20	09/06/16 08:14	1
Dibenz(a,h)anthracene	0.090	U	1.0	0.090	ug/L		09/02/16 09:20	09/06/16 08:14	1
Benzo[g,h,i]perylene	0.75	U	10	0.75	ug/L		09/02/16 09:20	09/06/16 08:14	1
1,1'-Biphenyl	0.63	U	10	0.63	ug/L		09/02/16 09:20	09/06/16 08:14	1
Acetophenone	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 08:14	1
Benzaldehyde	0.86	U	10	0.86	ug/L		09/02/16 09:20	09/06/16 08:14	1
Caprolactam	1.1	U	10	1.1	ug/L		09/02/16 09:20	09/06/16 08:14	1
Atrazine	0.77	U	2.0	0.77	ug/L		09/02/16 09:20	09/06/16 08:14	1
2,2'-oxybis[1-chloropropane]	0.93	U	10	0.93	ug/L		09/02/16 09:20	09/06/16 08:14	1
1,2,4,5-Tetrachlorobenzene	0.43	U	10	0.43	ug/L		09/02/16 09:20	09/06/16 08:14	1
2,3,4,6-Tetrachlorophenol	0.69	U	10	0.69	ug/L		09/02/16 09:20	09/06/16 08:14	1
3,3'-Dichlorobenzidine	1.0	U	10	1.0	ug/L		09/02/16 09:20	09/06/16 08:14	1
Bis(2-chloroethoxy)methane	0.69	U	10	0.69	ug/L		09/02/16 09:20	09/06/16 08:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*79*		*30 - 130*	*09/02/16 09:20*	*09/06/16 08:14*	*1*
Phenol-d5 (Surr)	*19*		*15 - 110*	*09/02/16 09:20*	*09/06/16 08:14*	*1*
Terphenyl-d14 (Surr)	*83*		*30 - 130*	*09/02/16 09:20*	*09/06/16 08:14*	*1*
2,4,6-Tribromophenol (Surr)	*71*		*15 - 110*	*09/02/16 09:20*	*09/06/16 08:14*	*1*
2-Fluorophenol (Surr)	*42*		*15 - 110*	*09/02/16 09:20*	*09/06/16 08:14*	*1*
2-Fluorobiphenyl	*59*		*30 - 130*	*09/02/16 09:20*	*09/06/16 08:14*	*1*

Lab Sample ID: LCS 460-388379/2-A
Matrix: Water
Analysis Batch: 388720

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388379

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	80.0	19.3		ug/L		24	20 - 160
2-Chlorophenol	80.0	55.6		ug/L		70	70 - 130
2-Methylphenol	80.0	43.6	*	ug/L		54	70 - 130
4-Methylphenol	80.0	43.9		ug/L		55	20 - 160
2-Nitrophenol	80.0	56.2		ug/L		70	70 - 130
2,4-Dimethylphenol	80.0	58.3		ug/L		73	70 - 130
2,4-Dichlorophenol	80.0	58.6		ug/L		73	70 - 130
4-Chloro-3-methylphenol	80.0	61.0		ug/L		76	20 - 160
2,4,6-Trichlorophenol	80.0	63.8		ug/L		80	70 - 130
2,4,5-Trichlorophenol	80.0	56.7		ug/L		71	20 - 160
2,4-Dinitrotoluene	80.0	69.3		ug/L		87	70 - 130
4-Nitrophenol	160	33.1		ug/L		21	20 - 160
4,6-Dinitro-2-methylphenol	160	137		ug/L		85	20 - 160
Pentachlorophenol	160	150		ug/L		94	20 - 160
Bis(2-chloroethyl)ether	80.0	58.8		ug/L		73	70 - 130
N-Nitrosodi-n-propylamine	80.0	70.9		ug/L		89	70 - 130
Hexachloroethane	80.0	55.4		ug/L		69	20 - 160
Nitrobenzene	80.0	73.3		ug/L		92	70 - 130
Isophorone	80.0	62.5		ug/L		78	70 - 130
Naphthalene	80.0	53.2	*	ug/L		67	70 - 130
4-Chloroaniline	80.0	56.3		ug/L		70	20 - 160

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-388379/2-A
Matrix: Water
Analysis Batch: 388720

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388379

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorobutadiene	80.0	51.5	*	ug/L		64	70 - 130
2-Methylnaphthalene	80.0	54.8	*	ug/L		69	70 - 130
Hexachlorocyclopentadiene	80.0	41.9		ug/L		52	20 - 160
2-Chloronaphthalene	80.0	60.6		ug/L		76	70 - 130
2-Nitroaniline	80.0	72.6		ug/L		91	20 - 160
Dimethyl phthalate	80.0	69.5		ug/L		87	70 - 130
Acenaphthylene	80.0	64.5		ug/L		81	70 - 130
2,6-Dinitrotoluene	80.0	66.9		ug/L		84	70 - 130
3-Nitroaniline	80.0	58.3		ug/L		73	20 - 160
Acenaphthene	80.0	62.6		ug/L		78	70 - 130
Dibenzofuran	80.0	63.2		ug/L		79	70 - 130
2,4-Dinitrophenol	160	129		ug/L		81	20 - 160
Diethyl phthalate	80.0	71.7		ug/L		90	70 - 130
4-Chlorophenyl phenyl ether	80.0	67.1		ug/L		84	70 - 130
Fluorene	80.0	65.1		ug/L		81	70 - 130
4-Nitroaniline	80.0	61.8		ug/L		77	20 - 160
N-Nitrosodiphenylamine	80.0	67.8		ug/L		85	70 - 130
4-Bromophenyl phenyl ether	80.0	65.9		ug/L		82	70 - 130
Hexachlorobenzene	80.0	66.8		ug/L		83	70 - 130
Phenanthrene	80.0	69.8		ug/L		87	70 - 130
Anthracene	80.0	70.9		ug/L		89	70 - 130
Carbazole	80.0	73.7		ug/L		92	70 - 130
Di-n-butyl phthalate	80.0	74.8		ug/L		93	70 - 130
Fluoranthene	80.0	86.2		ug/L		108	70 - 130
Pyrene	80.0	68.1		ug/L		85	70 - 130
Butyl benzyl phthalate	80.0	71.7		ug/L		90	70 - 130
Benzo[a]anthracene	80.0	68.4		ug/L		85	70 - 130
Chrysene	80.0	74.8		ug/L		93	70 - 130
Bis(2-ethylhexyl) phthalate	80.0	67.6		ug/L		84	70 - 130
Di-n-octyl phthalate	80.0	76.2		ug/L		95	70 - 130
Benzo[b]fluoranthene	80.0	66.8		ug/L		84	70 - 130
Benzo[k]fluoranthene	80.0	71.9		ug/L		90	70 - 130
Benzo[a]pyrene	80.0	68.6		ug/L		86	70 - 130
Indeno[1,2,3-cd]pyrene	80.0	69.1		ug/L		86	70 - 130
Dibenz(a,h)anthracene	80.0	69.1		ug/L		86	70 - 130
Benzo[g,h,i]perylene	80.0	66.2		ug/L		83	70 - 130
1,1'-Biphenyl	80.0	62.5		ug/L		78	70 - 130
Acetophenone	80.0	75.2		ug/L		94	70 - 130
2,2'-oxybis[1-chloropropane]	80.0	74.9		ug/L		94	70 - 130
1,2,4,5-Tetrachlorobenzene	80.0	57.9		ug/L		72	70 - 130
2,3,4,6-Tetrachlorophenol	80.0	70.3		ug/L		88	70 - 130
3,3'-Dichlorobenzidine	80.0	69.9		ug/L		87	70 - 130
Bis(2-chloroethoxy)methane	80.0	64.6		ug/L		81	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*76*		*30 - 130*
Phenol-d5 (Surr)	*22*		*15 - 110*
Terphenyl-d14 (Surr)	*68*		*30 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-388379/2-A
Matrix: Water
Analysis Batch: 388720

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388379

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*83*		*15 - 110*
2-Fluorophenol (Surr)	*33*		*15 - 110*
2-Fluorobiphenyl	*76*		*30 - 130*

Lab Sample ID: LCS 460-388379/3-A
Matrix: Water
Analysis Batch: 388720

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388379

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzaldehyde	160	135		ug/L		84	20 - 160
Caprolactam	160	30.3	*	ug/L		19	20 - 160
Atrazine	160	130		ug/L		81	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*64*		*30 - 130*
Phenol-d5 (Surr)	*13*	*X*	*15 - 110*
Terphenyl-d14 (Surr)	*69*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*71*		*15 - 110*
2-Fluorophenol (Surr)	*36*		*15 - 110*
2-Fluorobiphenyl	*60*		*30 - 130*

Lab Sample ID: 460-119489-4 MS
Matrix: Water
Analysis Batch: 388720

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA
Prep Batch: 388379

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenol	0.41	U	80.0	23.4		ug/L		29	20 - 160
2-Chlorophenol	0.74	U F1	80.0	54.0	F1	ug/L		67	70 - 130
2-Methylphenol	1.3	U F1 * F2	80.0	39.4	F1	ug/L		49	70 - 130
4-Methylphenol	0.87	U	80.0	44.7		ug/L		56	20 - 160
2-Nitrophenol	0.59	U F1	80.0	51.1	F1	ug/L		64	70 - 130
2,4-Dimethylphenol	0.91	U F1	80.0	46.0	F1	ug/L		58	70 - 130
2,4-Dichlorophenol	0.63	U F1	80.0	49.0	F1	ug/L		61	70 - 130
4-Chloro-3-methylphenol	0.76	U	80.0	50.9		ug/L		64	20 - 160
2,4,6-Trichlorophenol	0.53	U	80.0	61.1		ug/L		76	20 - 160
2,4,5-Trichlorophenol	0.49	U	80.0	63.5		ug/L		79	20 - 160
2,4-Dinitrotoluene	1.0	U F2	80.0	62.6		ug/L		78	70 - 130
4-Nitrophenol	4.7	U	160	40.1		ug/L		25	20 - 160
4,6-Dinitro-2-methylphenol	2.0	U	160	98.1		ug/L		61	20 - 160
Pentachlorophenol	2.2	U	160	115		ug/L		72	20 - 160
Bis(2-chloroethyl)ether	0.12	U F1	80.0	58.2		ug/L		73	70 - 130
N-Nitrosodi-n-propylamine	0.83	U	80.0	75.9		ug/L		95	70 - 130
Hexachloroethane	0.090	U	80.0	61.7		ug/L		77	20 - 160
Nitrobenzene	0.49	U	80.0	57.1		ug/L		71	70 - 130
Isophorone	0.67	U F1	80.0	51.1	F1	ug/L		64	70 - 130
Naphthalene	0.80	U F1 *	80.0	52.7	F1	ug/L		66	70 - 130
4-Chloroaniline	0.73	U	80.0	38.9		ug/L		49	20 - 160
Hexachlorobutadiene	0.76	U F1 *	80.0	48.8	F1	ug/L		61	70 - 130

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-119489-4 MS
Matrix: Water
Analysis Batch: 388720

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA
Prep Batch: 388379

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	0.88	U F1 *	80.0	51.9	F1	ug/L		65	70 - 130
Hexachlorocyclopentadiene	0.61	U	80.0	47.9		ug/L		60	20 - 160
2-Chloronaphthalene	0.61	U	80.0	63.0		ug/L		79	70 - 130
2-Nitroaniline	0.65	U	80.0	65.7		ug/L		82	20 - 160
Dimethyl phthalate	0.98	U	80.0	67.3		ug/L		84	70 - 130
Acenaphthylene	0.65	U	80.0	61.5		ug/L		77	70 - 130
2,6-Dinitrotoluene	0.88	U	80.0	67.7		ug/L		85	70 - 130
3-Nitroaniline	0.82	U	80.0	37.5		ug/L		47	20 - 160
Acenaphthene	0.88	U	80.0	61.0		ug/L		76	70 - 130
Dibenzofuran	0.85	U	80.0	63.2		ug/L		79	70 - 130
2,4-Dinitrophenol	2.4	U	160	117		ug/L		73	20 - 160
Diethyl phthalate	1.0	U	80.0	64.0		ug/L		80	70 - 130
4-Chlorophenyl phenyl ether	0.96	U	80.0	66.2		ug/L		83	70 - 130
Fluorene	0.80	U	80.0	65.6		ug/L		82	70 - 130
4-Nitroaniline	0.48	U	80.0	41.7		ug/L		52	20 - 160
N-Nitrosodiphenylamine	0.74	U F1	80.0	46.5	F1	ug/L		58	70 - 130
4-Bromophenyl phenyl ether	1.0	U F1	80.0	47.5	F1	ug/L		59	70 - 130
Hexachlorobenzene	0.47	U F1	80.0	55.2	F1	ug/L		69	70 - 130
Phenanthrene	0.65	U	80.0	71.0		ug/L		89	70 - 130
Anthracene	0.57	U F1	80.0	50.0	F1	ug/L		63	70 - 130
Carbazole	0.85	U F1	80.0	48.9	F1	ug/L		61	70 - 130
Di-n-butyl phthalate	0.82	U F1	80.0	53.2	F1	ug/L		67	70 - 130
Fluoranthene	0.72	U F1	80.0	52.4	F1	ug/L		65	70 - 130
Pyrene	0.83	U	80.0	67.4		ug/L		84	70 - 130
Butyl benzyl phthalate	0.60	U	80.0	69.5		ug/L		87	70 - 130
Benzo[a]anthracene	0.55	U	80.0	68.1		ug/L		85	70 - 130
Chrysene	0.67	U	80.0	67.7		ug/L		85	70 - 130
Bis(2-ethylhexyl) phthalate	0.72	U	80.0	66.6		ug/L		83	70 - 130
Di-n-octyl phthalate	0.69	U	80.0	65.8		ug/L		82	70 - 130
Benzo[b]fluoranthene	0.44	U	80.0	65.2		ug/L		81	70 - 130
Benzo[k]fluoranthene	0.18	U	80.0	62.9		ug/L		79	70 - 130
Benzo[a]pyrene	0.16	U	80.0	61.9		ug/L		77	70 - 130
Indeno[1,2,3-cd]pyrene	0.21	U	80.0	68.7		ug/L		86	70 - 130
Dibenz(a,h)anthracene	0.090	U	80.0	68.4		ug/L		85	70 - 130
Benzo[g,h,i]perylene	0.75	U	80.0	64.3		ug/L		80	70 - 130
1,1'-Biphenyl	0.63	U	80.0	67.0		ug/L		84	70 - 130
Acetophenone	1.0	U	80.0	72.5		ug/L		91	70 - 130
Benzaldehyde	0.86	U	160	121		ug/L		76	20 - 160
Caprolactam	1.1	U F1 *	160	27.6	F1	ug/L		17	20 - 160
Atrazine	0.77	U F1	160	98.5	F1	ug/L		62	70 - 130
2,2'-oxybis[1-chloropropane]	0.93	U	80.0	72.9		ug/L		91	70 - 130
1,2,4,5-Tetrachlorobenzene	0.43	U	80.0	60.3		ug/L		75	70 - 130
2,3,4,6-Tetrachlorophenol	0.69	U	80.0	71.2		ug/L		89	70 - 130
3,3'-Dichlorobenzidine	1.0	U F1 F2	80.0	15.4	F1	ug/L		19	70 - 130
Bis(2-chloroethoxy)methane	0.69	U F1	80.0	54.6	F1	ug/L		68	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*61*		*30 - 130*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-119489-4 MS
Matrix: Water
Analysis Batch: 388720

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA
Prep Batch: 388379

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Phenol-d5 (Surr)	*23*		*15 - 110*
Terphenyl-d14 (Surr)	*71*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*86*		*15 - 110*
2-Fluorophenol (Surr)	*34*		*15 - 110*
2-Fluorobiphenyl	*76*		*30 - 130*

Lab Sample ID: 460-119489-4 MSD
Matrix: Water
Analysis Batch: 388720

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA
Prep Batch: 388379

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol	0.41	U	80.0	22.6		ug/L		28	20 - 160	4	20
2-Chlorophenol	0.74	U F1	80.0	60.6		ug/L		76	70 - 130	12	20
2-Methylphenol	1.3	U F1 * F2	80.0	50.8	F1 F2	ug/L		63	70 - 130	25	20
4-Methylphenol	0.87	U	80.0	41.6		ug/L		52	20 - 160	7	20
2-Nitrophenol	0.59	U F1	80.0	54.4	F1	ug/L		68	70 - 130	6	20
2,4-Dimethylphenol	0.91	U F1	80.0	52.8	F1	ug/L		66	70 - 130	14	20
2,4-Dichlorophenol	0.63	U F1	80.0	48.8	F1	ug/L		61	70 - 130	0	20
4-Chloro-3-methylphenol	0.76	U	80.0	57.7		ug/L		72	20 - 160	13	20
2,4,6-Trichlorophenol	0.53	U	80.0	72.7		ug/L		91	20 - 160	17	20
2,4,5-Trichlorophenol	0.49	U	80.0	70.1		ug/L		88	20 - 160	10	20
2,4-Dinitrotoluene	1.0	U F2	80.0	77.9	F2	ug/L		97	70 - 130	22	20
4-Nitrophenol	4.7	U	160	43.9		ug/L		27	20 - 160	9	20
4,6-Dinitro-2-methylphenol	2.0	U	160	106		ug/L		66	20 - 160	8	20
Pentachlorophenol	2.2	U	160	116		ug/L		72	20 - 160	1	20
Bis(2-chloroethyl)ether	0.12	U F1	80.0	55.4	F1	ug/L		69	70 - 130	5	20
N-Nitrosodi-n-propylamine	0.83	U	80.0	76.1		ug/L		95	70 - 130	0	20
Hexachloroethane	0.090	U	80.0	60.1		ug/L		75	20 - 160	3	20
Nitrobenzene	0.49	U	80.0	60.3		ug/L		75	70 - 130	5	20
Isophorone	0.67	U F1	80.0	54.4	F1	ug/L		68	70 - 130	6	20
Naphthalene	0.80	U F1 *	80.0	55.4	F1	ug/L		69	70 - 130	5	20
4-Chloroaniline	0.73	U	80.0	42.4		ug/L		53	20 - 160	9	20
Hexachlorobutadiene	0.76	U F1 *	80.0	52.1	F1	ug/L		65	70 - 130	6	20
2-Methylnaphthalene	0.88	U F1 *	80.0	57.2		ug/L		71	70 - 130	10	20
Hexachlorocyclopentadiene	0.61	U	80.0	55.2		ug/L		69	20 - 160	14	20
2-Chloronaphthalene	0.61	U	80.0	70.2		ug/L		88	70 - 130	11	20
2-Nitroaniline	0.65	U	80.0	63.0		ug/L		79	20 - 160	4	20
Dimethyl phthalate	0.98	U	80.0	73.3		ug/L		92	70 - 130	9	20
Acenaphthylene	0.65	U	80.0	71.5		ug/L		89	70 - 130	15	20
2,6-Dinitrotoluene	0.88	U	80.0	72.9		ug/L		91	70 - 130	7	20
3-Nitroaniline	0.82	U	80.0	45.1		ug/L		56	20 - 160	18	20
Acenaphthene	0.88	U	80.0	64.4		ug/L		80	70 - 130	5	20
Dibenzofuran	0.85	U	80.0	69.0		ug/L		86	70 - 130	9	20
2,4-Dinitrophenol	2.4	U	160	131		ug/L		82	20 - 160	11	20
Diethyl phthalate	1.0	U	80.0	71.3		ug/L		89	70 - 130	11	20
4-Chlorophenyl phenyl ether	0.96	U	80.0	66.4		ug/L		83	70 - 130	0	20
Fluorene	0.80	U	80.0	70.0		ug/L		88	70 - 130	6	20
4-Nitroaniline	0.48	U	80.0	47.6		ug/L		59	20 - 160	13	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-119489-4 MSD
Matrix: Water
Analysis Batch: 388720

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA
Prep Batch: 388379

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Nitrosodiphenylamine	0.74	U F1	80.0	53.9	F1	ug/L		67	70 - 130	15	20
4-Bromophenyl phenyl ether	1.0	U F1	80.0	50.8	F1	ug/L		63	70 - 130	7	20
Hexachlorobenzene	0.47	U F1	80.0	55.0	F1	ug/L		69	70 - 130	0	20
Phenanthrene	0.65	U	80.0	76.4		ug/L		95	70 - 130	7	20
Anthracene	0.57	U F1	80.0	53.4	F1	ug/L		67	70 - 130	7	20
Carbazole	0.85	U F1	80.0	50.2	F1	ug/L		63	70 - 130	3	20
Di-n-butyl phthalate	0.82	U F1	80.0	53.2	F1	ug/L		66	70 - 130	0	20
Fluoranthene	0.72	U F1	80.0	55.6	F1	ug/L		69	70 - 130	6	20
Pyrene	0.83	U	80.0	65.4		ug/L		82	70 - 130	3	20
Butyl benzyl phthalate	0.60	U	80.0	66.1		ug/L		83	70 - 130	5	20
Benzo[a]anthracene	0.55	U	80.0	67.5		ug/L		84	70 - 130	1	20
Chrysene	0.67	U	80.0	63.7		ug/L		80	70 - 130	6	20
Bis(2-ethylhexyl) phthalate	0.72	U	80.0	66.4		ug/L		83	70 - 130	0	20
Di-n-octyl phthalate	0.69	U	80.0	67.1		ug/L		84	70 - 130	2	20
Benzo[b]fluoranthene	0.44	U	80.0	62.1		ug/L		78	70 - 130	5	20
Benzo[k]fluoranthene	0.18	U	80.0	64.2		ug/L		80	70 - 130	2	20
Benzo[a]pyrene	0.16	U	80.0	63.8		ug/L		80	70 - 130	3	20
Indeno[1,2,3-cd]pyrene	0.21	U	80.0	66.3		ug/L		83	70 - 130	4	20
Dibenz(a,h)anthracene	0.090	U	80.0	70.6		ug/L		88	70 - 130	3	20
Benzo[g,h,i]perylene	0.75	U	80.0	64.5		ug/L		81	70 - 130	0	20
1,1'-Biphenyl	0.63	U	80.0	70.6		ug/L		88	70 - 130	5	20
Acetophenone	1.0	U	80.0	68.3		ug/L		85	70 - 130	6	20
Benzaldehyde	0.86	U	160	128		ug/L		80	20 - 160	5	20
Caprolactam	1.1	U F1 *	160	24.7	F1	ug/L		15	20 - 160	11	20
Atrazine	0.77	U F1	160	107	F1	ug/L		67	70 - 130	8	20
2,2'-oxybis[1-chloropropane]	0.93	U	80.0	75.7		ug/L		95	70 - 130	4	20
1,2,4,5-Tetrachlorobenzene	0.43	U	80.0	63.6		ug/L		79	70 - 130	5	20
2,3,4,6-Tetrachlorophenol	0.69	U	80.0	74.4		ug/L		93	70 - 130	4	20
3,3'-Dichlorobenzidine	1.0	U F1 F2	80.0	24.2	F1 F2	ug/L		30	70 - 130	44	20
Bis(2-chloroethoxy)methane	0.69	U F1	80.0	57.4		ug/L		72	70 - 130	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*68*		*30 - 130*
Phenol-d5 (Surr)	*25*		*15 - 110*
Terphenyl-d14 (Surr)	*71*		*30 - 130*
2,4,6-Tribromophenol (Surr)	*97*		*15 - 110*
2-Fluorophenol (Surr)	*34*		*15 - 110*
2-Fluorobiphenyl	*86*		*30 - 130*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 460-388379/1-A
Matrix: Water
Analysis Batch: 388366

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388379

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	0.037	U	0.050	0.037	ug/L		09/02/16 09:20	09/04/16 12:57	1
Benzo[a]pyrene	0.026	U	0.050	0.026	ug/L		09/02/16 09:20	09/04/16 12:57	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 460-388379/1-A
Matrix: Water
Analysis Batch: 388366

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388379

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.012	U	0.050	0.012	ug/L		09/02/16 09:20	09/04/16 12:57	1
Bis(2-chloroethyl)ether	0.0090	U	0.020	0.0090	ug/L		09/02/16 09:20	09/04/16 12:57	1
Dibenz(a,h)anthracene	0.022	U	0.050	0.022	ug/L		09/02/16 09:20	09/04/16 12:57	1
Hexachlorobenzene	0.0090	U	0.020	0.0090	ug/L		09/02/16 09:20	09/04/16 12:57	1
Indeno[1,2,3-cd]pyrene	0.027	U	0.050	0.027	ug/L		09/02/16 09:20	09/04/16 12:57	1
N-Nitrosodimethylamine	0.051	U	0.20	0.051	ug/L		09/02/16 09:20	09/04/16 12:57	1
Pentachlorophenol	0.077	U	0.20	0.077	ug/L		09/02/16 09:20	09/04/16 12:57	1

Lab Sample ID: LCS 460-388379/4-A
Matrix: Water
Analysis Batch: 388366

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388379

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	0.800	0.712		ug/L		89	70 - 130
Benzo[a]pyrene	0.800	0.644		ug/L		80	70 - 130
Benzo[b]fluoranthene	0.800	0.669		ug/L		84	70 - 130
Bis(2-chloroethyl)ether	0.800	0.745		ug/L		93	70 - 130
Dibenz(a,h)anthracene	0.800	0.678		ug/L		85	70 - 130
Hexachlorobenzene	0.800	0.715		ug/L		89	70 - 130
Indeno[1,2,3-cd]pyrene	0.800	0.692		ug/L		87	70 - 130
N-Nitrosodimethylamine	0.800	0.515		ug/L		64	20 - 160
Pentachlorophenol	1.60	0.597		ug/L		37	20 - 160

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-388507/1-A
Matrix: Water
Analysis Batch: 388760

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388507

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Polychlorinated biphenyls, Total	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 10:51	1
PCB-1016	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 10:51	1
PCB-1221	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 10:51	1
PCB-1232	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 10:51	1
PCB-1242	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 10:51	1
PCB-1248	0.098	U	0.40	0.098	ug/L		09/02/16 19:39	09/06/16 10:51	1
PCB-1254	0.084	U	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 10:51	1
PCB-1260	0.084	U	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 10:51	1
PCB-1262	0.084	U	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 10:51	1
PCB-1268	0.084	U	0.40	0.084	ug/L		09/02/16 19:39	09/06/16 10:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*126*		*30 - 150*	*09/02/16 19:39*	*09/06/16 10:51*	*1*
Tetrachloro-m-xylene	*128*		*30 - 150*	*09/02/16 19:39*	*09/06/16 10:51*	*1*
DCB Decachlorobiphenyl	*142*		*30 - 150*	*09/02/16 19:39*	*09/06/16 10:51*	*1*
DCB Decachlorobiphenyl	*147*		*30 - 150*	*09/02/16 19:39*	*09/06/16 10:51*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 460-388507/2-A
Matrix: Water
Analysis Batch: 388760

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388507

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			4.00	5.55		ug/L		139	40 - 140		
PCB-1016			4.00	6.24	*	ug/L		156	40 - 140		
PCB-1260			4.00	5.35		ug/L		134	40 - 140		
PCB-1260			4.00	6.19	*	ug/L		155	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*110*		*30 - 150*
Tetrachloro-m-xylene	*125*		*30 - 150*
DCB Decachlorobiphenyl	*120*		*30 - 150*
DCB Decachlorobiphenyl	*137*		*30 - 150*

Lab Sample ID: 460-119489-4 MS
Matrix: Water
Analysis Batch: 388760

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA
Prep Batch: 388507

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016	0.098	U	4.00	5.20		ug/L		130	40 - 140		
PCB-1016	0.098	U * F1	4.00	5.40		ug/L		135	40 - 140		
PCB-1260	0.084	U * F1	4.00	4.97		ug/L		124	40 - 140		
PCB-1260	0.084	U	4.00	4.96		ug/L		124	40 - 140		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*122*		*30 - 150*
Tetrachloro-m-xylene	*121*		*30 - 150*
DCB Decachlorobiphenyl	*122*		*30 - 150*
DCB Decachlorobiphenyl	*121*		*30 - 150*

Lab Sample ID: 460-119489-4 MSD
Matrix: Water
Analysis Batch: 388760

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA
Prep Batch: 388507

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	0.098	U	4.00	5.40		ug/L		135	40 - 140	4	20
PCB-1016	0.098	U * F1	4.00	5.89	F1	ug/L		147	40 - 140	9	20
PCB-1260	0.084	U	4.00	5.21		ug/L		130	40 - 140	5	20
PCB-1260	0.084	U * F1	4.00	5.75	F1	ug/L		144	40 - 140	15	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*129*		*30 - 150*
Tetrachloro-m-xylene	*139*		*30 - 150*
DCB Decachlorobiphenyl	*128*		*30 - 150*
DCB Decachlorobiphenyl	*141*		*30 - 150*

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 460-389772/3
Matrix: Water
Analysis Batch: 389772

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			09/11/16 02:15	1
Sulfate	0.11	U	0.60	0.11	mg/L			09/11/16 02:15	1

Lab Sample ID: LCS 460-389772/4
Matrix: Water
Analysis Batch: 389772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.025		mg/L		101	90 - 110
Chloride	1.50	1.491		mg/L		99	90 - 110
Fluoride	1.00	1.037		mg/L		104	90 - 110
Sulfate	7.50	7.272		mg/L		97	90 - 110

Lab Sample ID: LCSD 460-389772/5
Matrix: Water
Analysis Batch: 389772

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	5.073		mg/L		101	90 - 110	1	15
Chloride	1.50	1.475		mg/L		98	90 - 110	1	15
Fluoride	1.00	0.942		mg/L		94	90 - 110	10	15
Sulfate	7.50	7.133		mg/L		95	90 - 110	2	15

Lab Sample ID: 460-119489-4 DU
Matrix: Water
Analysis Batch: 389772

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	204	E	0.11	U	mg/L		NC	15

Lab Sample ID: MB 460-390003/3
Matrix: Water
Analysis Batch: 390003

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			09/12/16 11:36	1
Sulfate	0.11	U	0.60	0.11	mg/L			09/12/16 11:36	1

Lab Sample ID: LCS 460-390003/5
Matrix: Water
Analysis Batch: 390003

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	5.042		mg/L		101	90 - 110
Chloride	1.50	1.490		mg/L		99	90 - 110
Fluoride	1.00	1.016		mg/L		102	90 - 110
Sulfate	7.50	7.353		mg/L		98	90 - 110

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 460-390003/6
Matrix: Water
Analysis Batch: 390003

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	4.990		mg/L		100	90 - 110	1	15
Chloride	1.50	1.543		mg/L		103	90 - 110	4	15
Fluoride	1.00	0.959		mg/L		96	90 - 110	6	15
Sulfate	7.50	7.196		mg/L		96	90 - 110	2	15

Lab Sample ID: MB 460-390225/3
Matrix: Water
Analysis Batch: 390225

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.030	U	0.12	0.030	mg/L			09/13/16 12:56	1
Sulfate	0.11	U	0.60	0.11	mg/L			09/13/16 12:56	1

Lab Sample ID: LCS 460-390225/5
Matrix: Water
Analysis Batch: 390225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	5.00	4.991		mg/L		100	90 - 110
Chloride	1.50	1.456		mg/L		97	90 - 110
Fluoride	1.00	0.944		mg/L		94	90 - 110
Sulfate	7.50	6.935		mg/L		92	90 - 110

Lab Sample ID: LCSD 460-390225/6
Matrix: Water
Analysis Batch: 390225

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide	5.00	4.902		mg/L		98	90 - 110	2	15
Chloride	1.50	1.446		mg/L		96	90 - 110	1	15
Fluoride	1.00	0.969		mg/L		97	90 - 110	3	15
Sulfate	7.50	7.058		mg/L		94	90 - 110	2	15

Method: 9056A - Anions, Ion Chromatography - DL

Lab Sample ID: 460-119489-6 MS
Matrix: Water
Analysis Batch: 390003

Client Sample ID: RW-10S(120-130)-082916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide - DL	0.81	U	50.0	48.41		mg/L		97	90 - 110
Chloride - DL	11.0	D	15.0	26.18		mg/L		101	90 - 110
Fluoride - DL	0.15	U	10.0	9.833		mg/L		98	90 - 110
Sulfate - DL	143	D F1	75.0	225.5	E	mg/L		110	90 - 110

Method: 9056A - Anions, Ion Chromatography - DL (Continued)

Lab Sample ID: 460-119489-6 MSD — **Client Sample ID: RW-10S(120-130)-082916**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 390003

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide - DL	0.81	U	50.0	49.38		mg/L		99	90 - 110	2	15
Chloride - DL	11.0	D	15.0	26.58		mg/L		104	90 - 110	2	15
Fluoride - DL	0.15	U	10.0	9.906		mg/L		99	90 - 110	1	15
Sulfate - DL	143	D F1	75.0	230.6	E F1	mg/L		117	90 - 110	2	15

Lab Sample ID: 460-119679-A-2 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 390003

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride - DL	49.8	F1 D	50.38		mg/L		1	15
Sulfate - DL	154	F1 D	148.7		mg/L		3	15

Lab Sample ID: 460-119489-5 MS — **Client Sample ID: RW-10A(51-61)-082916**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 390225

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide - DL	0.41	U	25.0	24.21		mg/L		97	90 - 110
Chloride - DL	4.38	D	7.50	11.31		mg/L		92	90 - 110
Fluoride - DL	0.075	U	5.00	4.894		mg/L		98	90 - 110
Sulfate - DL	50.9	D	37.5	89.55		mg/L		103	90 - 110

Lab Sample ID: 460-119489-5 MSD — **Client Sample ID: RW-10A(51-61)-082916**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 390225

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromide - DL	0.41	U	25.0	24.50		mg/L		98	90 - 110	1	15
Chloride - DL	4.38	D	7.50	11.43		mg/L		94	90 - 110	1	15
Fluoride - DL	0.075	U	5.00	4.965		mg/L		99	90 - 110	1	15
Sulfate - DL	50.9	D	37.5	89.35		mg/L		103	90 - 110	0	15

Lab Sample ID: 460-119489-5 DU — **Client Sample ID: RW-10A(51-61)-082916**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 390225

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride - DL	4.38	D	4.226		mg/L		4	15
Sulfate - DL	50.9	D	49.56		mg/L		3	15

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 460-388670/1-A ^2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 389030 — **Prep Batch: 388670**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.64	U	2.0	0.64	ug/L		09/04/16 19:27	09/07/16 01:09	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-388670/1-A ^2
Matrix: Water
Analysis Batch: 389030

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388670

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	1.2	U	4.0	1.2	ug/L		09/04/16 19:27	09/07/16 01:09	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/04/16 19:27	09/07/16 01:09	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/04/16 19:27	09/07/16 01:09	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/04/16 19:27	09/07/16 01:09	2
Chromium	1.3	U	4.0	1.3	ug/L		09/04/16 19:27	09/07/16 01:09	2
Copper	1.4	U	4.0	1.4	ug/L		09/04/16 19:27	09/07/16 01:09	2
Manganese	2.5	U	8.0	2.5	ug/L		09/04/16 19:27	09/07/16 01:09	2
Nickel	1.4	U	4.0	1.4	ug/L		09/04/16 19:27	09/07/16 01:09	2
Lead	0.38	U	1.2	0.38	ug/L		09/04/16 19:27	09/07/16 01:09	2
Antimony	0.62	U	2.0	0.62	ug/L		09/04/16 19:27	09/07/16 01:09	2
Selenium	0.73	U	10.0	0.73	ug/L		09/04/16 19:27	09/07/16 01:09	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/04/16 19:27	09/07/16 01:09	2
Zinc	7.0	U	16.0	7.0	ug/L		09/04/16 19:27	09/07/16 01:09	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/04/16 19:27	09/07/16 01:09	2
Sodium	69.0	U	200	69.0	ug/L		09/04/16 19:27	09/07/16 01:09	2
Potassium	91.4	U	200	91.4	ug/L		09/04/16 19:27	09/07/16 01:09	2
Calcium	60.5	U	200	60.5	ug/L		09/04/16 19:27	09/07/16 01:09	2
Iron	42.4	U	120	42.4	ug/L		09/04/16 19:27	09/07/16 01:09	2
Thallium	0.26	U	0.80	0.26	ug/L		09/04/16 19:27	09/07/16 01:09	2

Lab Sample ID: MB 460-388670/1-A ^2
Matrix: Water
Analysis Batch: 389607

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388670

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/04/16 19:27	09/10/16 06:31	2
Magnesium	63.6	U	200	63.6	ug/L		09/04/16 19:27	09/10/16 06:31	2

Lab Sample ID: LCS 460-388670/2-A ^2
Matrix: Water
Analysis Batch: 389030

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388670

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	46.17		ug/L		92	80 - 120
Barium	50.0	49.08		ug/L		98	80 - 120
Beryllium	25.0	26.62		ug/L		106	80 - 120
Cadmium	25.0	23.68		ug/L		95	80 - 120
Cobalt	25.0	23.44		ug/L		94	80 - 120
Chromium	50.0	47.89		ug/L		96	80 - 120
Copper	50.0	48.15		ug/L		96	80 - 120
Manganese	250	228.1		ug/L		91	80 - 120
Nickel	50.0	47.76		ug/L		96	80 - 120
Lead	25.0	24.29		ug/L		97	80 - 120
Antimony	25.0	24.02		ug/L		96	80 - 120
Selenium	50.0	46.66		ug/L		93	80 - 120
Vanadium	50.0	47.30		ug/L		95	80 - 120
Zinc	250	239.6		ug/L		96	80 - 120
Aluminum	2500	2320		ug/L		93	80 - 120
Sodium	2500	2105		ug/L		84	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-388670/2-A ^2
Matrix: Water
Analysis Batch: 389030

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388670

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	2500	2092		ug/L		84	80 - 120
Calcium	2500	2567		ug/L		103	80 - 120
Iron	2500	2461		ug/L		98	80 - 120
Thallium	20.0	18.83		ug/L		94	80 - 120

Lab Sample ID: LCS 460-388670/2-A ^2
Matrix: Water
Analysis Batch: 389607

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388670

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	22.60		ug/L		90	80 - 120
Magnesium	2500	2246		ug/L		90	80 - 120

Lab Sample ID: 460-119333-E-3-C MS ^2
Matrix: Water
Analysis Batch: 389030

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 388670

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	3.2		50.0	44.07		ug/L		82	75 - 125
Barium	90.4		50.0	136.9		ug/L		93	75 - 125
Beryllium	0.24	U	25.0	24.75		ug/L		99	75 - 125
Cadmium	0.71	U	25.0	21.93		ug/L		88	75 - 125
Cobalt	3.4	J	25.0	25.40		ug/L		88	75 - 125
Chromium	5.1		50.0	49.42		ug/L		89	75 - 125
Copper	20.1		50.0	78.57		ug/L		117	75 - 125
Manganese	1190		250	1424	4	ug/L		93	75 - 125
Nickel	11.6		50.0	56.02		ug/L		89	75 - 125
Lead	6.1		25.0	28.84		ug/L		91	75 - 125
Antimony	0.62	U	25.0	20.33		ug/L		81	75 - 125
Selenium	0.73	U	50.0	41.05		ug/L		82	75 - 125
Vanadium	5.7		50.0	50.61		ug/L		90	75 - 125
Zinc	31.9		250	253.2		ug/L		89	75 - 125
Aluminum	2730		2500	5802		ug/L		123	75 - 125
Sodium	17000		2500	19980	4	ug/L		118	75 - 125
Potassium	3570		2500	5654		ug/L		83	75 - 125
Calcium	11800		2500	14470	4	ug/L		108	75 - 125
Iron	5250		2500	7745		ug/L		100	75 - 125
Thallium	0.26	U	20.0	17.56		ug/L		88	75 - 125

Lab Sample ID: 460-119333-E-3-C MS ^2
Matrix: Water
Analysis Batch: 389607

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 388670

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.3	U	25.0	21.13		ug/L		85	75 - 125
Magnesium	5190		2500	7432		ug/L		90	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119333-E-3-B DU ^2
Matrix: Water
Analysis Batch: 389030

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 388670

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	3.2		3.24		ug/L		1	20
Barium	90.4		94.81		ug/L		5	20
Beryllium	0.24	U	0.258	J	ug/L		NC	20
Cadmium	0.71	U	0.71	U	ug/L		NC	20
Cobalt	3.4	J	3.55	J	ug/L		5	20
Chromium	5.1		5.30		ug/L		4	20
Copper	20.1		19.37		ug/L		4	20
Manganese	1190		1236		ug/L		4	20
Nickel	11.6		11.83		ug/L		2	20
Lead	6.1		6.30		ug/L		3	20
Antimony	0.62	U	0.62	U	ug/L		NC	20
Selenium	0.73	U	0.73	U	ug/L		NC	20
Vanadium	5.7		5.97		ug/L		4	20
Zinc	31.9		31.82		ug/L		0.2	20
Aluminum	2730		2809		ug/L		3	20
Sodium	17000		17490		ug/L		3	20
Potassium	3570		3670		ug/L		3	20
Calcium	11800		12300		ug/L		4	20
Iron	5250		5388		ug/L		3	20
Thallium	0.26	U	0.26	U	ug/L		NC	20

Lab Sample ID: 460-119333-E-3-B DU ^2
Matrix: Water
Analysis Batch: 389607

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 388670

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.3	U	1.3	U	ug/L		NC	20
Magnesium	5190		5424		ug/L		4	20

Lab Sample ID: MB 460-388801/1-A ^2
Matrix: Water
Analysis Batch: 389976

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388801

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/06/16 09:51	09/11/16 18:47	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/06/16 09:51	09/11/16 18:47	2
Barium	1.2	U	4.0	1.2	ug/L		09/06/16 09:51	09/11/16 18:47	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/06/16 09:51	09/11/16 18:47	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/06/16 09:51	09/11/16 18:47	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/06/16 09:51	09/11/16 18:47	2
Chromium	1.3	U	4.0	1.3	ug/L		09/06/16 09:51	09/11/16 18:47	2
Copper	1.4	U	4.0	1.4	ug/L		09/06/16 09:51	09/11/16 18:47	2
Manganese	2.5	U	8.0	2.5	ug/L		09/06/16 09:51	09/11/16 18:47	2
Nickel	1.4	U	4.0	1.4	ug/L		09/06/16 09:51	09/11/16 18:47	2
Lead	0.38	U	1.2	0.38	ug/L		09/06/16 09:51	09/11/16 18:47	2
Antimony	0.62	U	2.0	0.62	ug/L		09/06/16 09:51	09/11/16 18:47	2
Selenium	0.73	U	10.0	0.73	ug/L		09/06/16 09:51	09/11/16 18:47	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/06/16 09:51	09/11/16 18:47	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-388801/1-A ^2
Matrix: Water
Analysis Batch: 389976

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 388801

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	7.0	U	16.0	7.0	ug/L		09/06/16 09:51	09/11/16 18:47	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/06/16 09:51	09/11/16 18:47	2
Sodium	69.0	U	200	69.0	ug/L		09/06/16 09:51	09/11/16 18:47	2
Magnesium	63.6	U	200	63.6	ug/L		09/06/16 09:51	09/11/16 18:47	2
Potassium	91.4	U	200	91.4	ug/L		09/06/16 09:51	09/11/16 18:47	2
Calcium	60.5	U	200	60.5	ug/L		09/06/16 09:51	09/11/16 18:47	2
Iron	42.4	U	120	42.4	ug/L		09/06/16 09:51	09/11/16 18:47	2
Thallium	0.26	U	0.80	0.26	ug/L		09/06/16 09:51	09/11/16 18:47	2

Lab Sample ID: LCS 460-388801/2-A ^2
Matrix: Water
Analysis Batch: 389976

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 388801

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	25.0	22.83		ug/L		91	80 - 120
Arsenic	50.0	49.45		ug/L		99	80 - 120
Barium	50.0	53.88		ug/L		108	80 - 120
Beryllium	25.0	25.21		ug/L		101	80 - 120
Cadmium	25.0	26.47		ug/L		106	80 - 120
Cobalt	25.0	26.61		ug/L		106	80 - 120
Chromium	50.0	54.36		ug/L		109	80 - 120
Copper	50.0	56.00		ug/L		112	80 - 120
Manganese	250	256.0		ug/L		102	80 - 120
Nickel	50.0	53.18		ug/L		106	80 - 120
Lead	25.0	26.94		ug/L		108	80 - 120
Antimony	25.0	26.42		ug/L		106	80 - 120
Selenium	50.0	50.22		ug/L		100	80 - 120
Vanadium	50.0	52.07		ug/L		104	80 - 120
Zinc	250	257.3		ug/L		103	80 - 120
Aluminum	2500	2691		ug/L		108	80 - 120
Sodium	2500	2736		ug/L		109	80 - 120
Magnesium	2500	2614		ug/L		105	80 - 120
Potassium	2500	2516		ug/L		101	80 - 120
Calcium	2500	2840		ug/L		114	80 - 120
Iron	2500	2565		ug/L		103	80 - 120
Thallium	20.0	20.84		ug/L		104	80 - 120

Lab Sample ID: 460-119489-4 MS
Matrix: Water
Analysis Batch: 389976

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA
Prep Batch: 388801

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.3	U	25.0	23.28		ug/L		93	75 - 125
Arsenic	8.8		50.0	59.19		ug/L		101	75 - 125
Barium	30.9		50.0	87.58		ug/L		113	75 - 125
Beryllium	0.24	U	25.0	27.75		ug/L		111	75 - 125
Cadmium	0.71	U	25.0	27.34		ug/L		109	75 - 125
Cobalt	1.3	U	25.0	28.12		ug/L		112	75 - 125
Chromium	1.3	U	50.0	58.46		ug/L		117	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119489-4 MS — **Client Sample ID: RW-14D(175-185)-082916**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 389976 — **Prep Batch: 388801**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	1.4	J	50.0	56.11		ug/L		109	75 - 125
Manganese	608		250	866.2		ug/L		103	75 - 125
Nickel	1.6	J	50.0	57.08		ug/L		111	75 - 125
Lead	0.38	U	25.0	28.88		ug/L		116	75 - 125
Antimony	0.62	U	25.0	28.12		ug/L		112	75 - 125
Selenium	0.73	U	50.0	51.34		ug/L		103	75 - 125
Vanadium	1.9	U	50.0	56.77		ug/L		114	75 - 125
Zinc	7.0	U	250	271.2		ug/L		108	75 - 125
Aluminum	18.2	U	2500	2632		ug/L		105	75 - 125
Sodium	68200		2500	70020	4	ug/L		71	75 - 125
Magnesium	14300		2500	16820	4	ug/L		102	75 - 125
Potassium	3960		2500	6521		ug/L		102	75 - 125
Calcium	64800		2500	66180	4	ug/L		57	75 - 125
Iron	26000		2500	28060	4	ug/L		81	75 - 125
Thallium	0.26	U	20.0	22.53		ug/L		113	75 - 125

Lab Sample ID: 460-119489-4 DU — **Client Sample ID: RW-14D(175-185)-082916**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 389976 — **Prep Batch: 388801**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.3	U	1.3	U	ug/L		NC	20
Arsenic	8.8		8.48		ug/L		4	20
Barium	30.9		31.52		ug/L		2	20
Beryllium	0.24	U	0.24	U	ug/L		NC	20
Cadmium	0.71	U	0.71	U	ug/L		NC	20
Cobalt	1.3	U	1.3	U	ug/L		NC	20
Chromium	1.3	U	1.3	U	ug/L		NC	20
Copper	1.4	J	1.43	J	ug/L		1	20
Manganese	608		602.8		ug/L		0.8	20
Nickel	1.6	J	1.60	J	ug/L		2	20
Lead	0.38	U	0.38	U	ug/L		NC	20
Antimony	0.62	U	0.62	U	ug/L		NC	20
Selenium	0.73	U	0.73	U	ug/L		NC	20
Vanadium	1.9	U	1.9	U	ug/L		NC	20
Zinc	7.0	U	7.0	U	ug/L		NC	20
Aluminum	18.2	U	18.2	U	ug/L		NC	20
Sodium	68200		68160		ug/L		0.1	20
Magnesium	14300		14270		ug/L		0.05	20
Potassium	3960		3909		ug/L		1	20
Calcium	64800		64380		ug/L		0.6	20
Iron	26000		25930		ug/L		0.4	20
Thallium	0.26	U	0.26	U	ug/L		NC	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 460-389040/2-A ^2
Matrix: Water
Analysis Batch: 389242

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	10.0	8.56		ug/L		86	80 - 120
Arsenic	20.0	18.75		ug/L		94	80 - 120
Barium	20.0	19.14		ug/L		96	80 - 120
Beryllium	10.0	8.11		ug/L		81	80 - 120
Cadmium	10.0	9.15		ug/L		91	80 - 120
Cobalt	10.0	8.67		ug/L		87	80 - 120
Chromium	20.0	17.71		ug/L		89	80 - 120
Copper	20.0	17.06		ug/L		85	80 - 120
Manganese	100	92.36		ug/L		92	80 - 120
Nickel	20.0	17.05		ug/L		85	80 - 120
Lead	10.0	8.99		ug/L		90	80 - 120
Antimony	10.0	8.56		ug/L		86	80 - 120
Selenium	20.0	18.32		ug/L		92	80 - 120
Vanadium	20.0	17.95		ug/L		90	80 - 120
Zinc	100	89.40		ug/L		89	80 - 120
Aluminum	1000	960.8		ug/L		96	80 - 120
Sodium	1000	856.4		ug/L		86	80 - 120
Magnesium	1000	930.2		ug/L		93	80 - 120
Potassium	1000	970.4		ug/L		97	80 - 120
Calcium	1000	971.2		ug/L		97	80 - 120
Iron	1000	959.0		ug/L		96	80 - 120
Thallium	8.00	7.22		ug/L		90	80 - 120

Lab Sample ID: MB 460-389010/1-C ^2
Matrix: Water
Analysis Batch: 389242

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 389040

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.3	U	2.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:03	2
Arsenic	0.64	U	2.0	0.64	ug/L		09/07/16 12:41	09/07/16 17:03	2
Barium	1.2	U	4.0	1.2	ug/L		09/07/16 12:41	09/07/16 17:03	2
Beryllium	0.24	U	0.80	0.24	ug/L		09/07/16 12:41	09/07/16 17:03	2
Cadmium	0.71	U	2.0	0.71	ug/L		09/07/16 12:41	09/07/16 17:03	2
Cobalt	1.3	U	4.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:03	2
Chromium	1.3	U	4.0	1.3	ug/L		09/07/16 12:41	09/07/16 17:03	2
Copper	1.4	U	4.0	1.4	ug/L		09/07/16 12:41	09/07/16 17:03	2
Manganese	2.5	U	8.0	2.5	ug/L		09/07/16 12:41	09/07/16 17:03	2
Nickel	1.4	U	4.0	1.4	ug/L		09/07/16 12:41	09/07/16 17:03	2
Lead	0.38	U	1.2	0.38	ug/L		09/07/16 12:41	09/07/16 17:03	2
Antimony	0.62	U	2.0	0.62	ug/L		09/07/16 12:41	09/07/16 17:03	2
Selenium	0.73	U	10.0	0.73	ug/L		09/07/16 12:41	09/07/16 17:03	2
Vanadium	1.9	U	4.0	1.9	ug/L		09/07/16 12:41	09/07/16 17:03	2
Zinc	7.0	U	16.0	7.0	ug/L		09/07/16 12:41	09/07/16 17:03	2
Aluminum	18.2	U	40.0	18.2	ug/L		09/07/16 12:41	09/07/16 17:03	2
Sodium	69.0	U	200	69.0	ug/L		09/07/16 12:41	09/07/16 17:03	2
Magnesium	63.6	U	200	63.6	ug/L		09/07/16 12:41	09/07/16 17:03	2
Potassium	91.4	U	200	91.4	ug/L		09/07/16 12:41	09/07/16 17:03	2
Calcium	60.5	U	200	60.5	ug/L		09/07/16 12:41	09/07/16 17:03	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 460-389010/1-C ^2
Matrix: Water
Analysis Batch: 389242

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 389040

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	42.4	U	120	42.4	ug/L		09/07/16 12:41	09/07/16 17:03	2
Thallium	0.26	U	0.80	0.26	ug/L		09/07/16 12:41	09/07/16 17:03	2

Lab Sample ID: 460-119489-4 MS
Matrix: Water
Analysis Batch: 389242

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Dissolved
Prep Batch: 389040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.3	U	10.0	8.37		ug/L		84	75 - 125
Arsenic	1.1	J	20.0	18.97		ug/L		90	75 - 125
Barium	31.6		20.0	48.32		ug/L		84	75 - 125
Beryllium	0.24	U	10.0	8.67		ug/L		87	75 - 125
Cadmium	0.71	U	10.0	8.48		ug/L		85	75 - 125
Cobalt	1.3	U	10.0	8.44		ug/L		84	75 - 125
Chromium	1.3	U	20.0	16.55		ug/L		83	75 - 125
Copper	1.4	U	20.0	15.97		ug/L		80	75 - 125
Manganese	889		100	939.6	4	ug/L		51	75 - 125
Nickel	1.4	U	20.0	17.51		ug/L		88	75 - 125
Lead	0.38	U	10.0	8.90		ug/L		89	75 - 125
Antimony	0.62	U	10.0	8.53		ug/L		85	75 - 125
Selenium	0.73	U	20.0	18.34		ug/L		92	75 - 125
Vanadium	1.9	U	20.0	17.04		ug/L		85	75 - 125
Zinc	7.0	U	100	86.84		ug/L		87	75 - 125
Aluminum	18.2	U	1000	908.2		ug/L		91	75 - 125
Sodium	115000		1000	109800	4	ug/L		-478	75 - 125
Magnesium	18600		1000	18670	4	ug/L		12	75 - 125
Potassium	5690		1000	6278	4	ug/L		59	75 - 125
Calcium	93400		1000	89740	4	ug/L		-370	75 - 125
Iron	3990	F1	1000	4712	F1	ug/L		72	75 - 125
Thallium	0.26	U	8.00	7.09		ug/L		89	75 - 125

Lab Sample ID: 460-119489-4 DU
Matrix: Water
Analysis Batch: 389242

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Dissolved
Prep Batch: 389040

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.3	U	1.3	U	ug/L		NC	20
Arsenic	1.1	J	1.04	J	ug/L		2	20
Barium	31.6		30.50		ug/L		3	20
Beryllium	0.24	U	0.24	U	ug/L		NC	20
Cadmium	0.71	U	0.71	U	ug/L		NC	20
Cobalt	1.3	U	1.3	U	ug/L		NC	20
Chromium	1.3	U	1.3	U	ug/L		NC	20
Copper	1.4	U	1.4	U	ug/L		NC	20
Manganese	889		853.2		ug/L		4	20
Nickel	1.4	U	1.4	U	ug/L		NC	20
Lead	0.38	U	0.38	U	ug/L		NC	20
Antimony	0.62	U	0.62	U	ug/L		NC	20
Selenium	0.73	U	0.73	U	ug/L		NC	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 460-119489-4 DU
Matrix: Water
Analysis Batch: 389242

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Dissolved
Prep Batch: 389040

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Vanadium	1.9	U	1.9	U	ug/L		NC	20
Zinc	7.0	U	7.0	U	ug/L		NC	20
Aluminum	18.2	U	18.2	U	ug/L		NC	20
Sodium	115000		109300		ug/L		5	20
Magnesium	18600		17790		ug/L		4	20
Potassium	5690		5458		ug/L		4	20
Calcium	93400		90240		ug/L		3	20
Iron	3990	F1	3840		ug/L		4	20
Thallium	0.26	U	0.26	U	ug/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 460-389018/1-A
Matrix: Water
Analysis Batch: 389094

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389018

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:28	09/07/16 13:21	1

Lab Sample ID: LCS 460-389018/2-A
Matrix: Water
Analysis Batch: 389094

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389018

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	0.921		ug/L		92	80 - 120

Lab Sample ID: 460-119489-4 MS
Matrix: Water
Analysis Batch: 389094

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA
Prep Batch: 389018

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.17	U	1.00	0.985		ug/L		98	75 - 125

Lab Sample ID: 460-119489-4 DU
Matrix: Water
Analysis Batch: 389094

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA
Prep Batch: 389018

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.17	U	0.17	U	ug/L		NC	20

Lab Sample ID: MB 460-389021/4-A
Matrix: Water
Analysis Batch: 389094

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389021

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/07/16 11:41	09/07/16 14:41	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 460-389021/5-A
Matrix: Water
Analysis Batch: 389094

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389021

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	1.12		ug/L		112	80 - 120

Lab Sample ID: MB 460-389272/3-A
Matrix: Water
Analysis Batch: 389355

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389272

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17	U	0.20	0.17	ug/L		09/08/16 11:54	09/08/16 15:25	1

Lab Sample ID: LCS 460-389272/4-A
Matrix: Water
Analysis Batch: 389355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389272

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	1.01		ug/L		101	80 - 120

Lab Sample ID: 460-119333-F-3-L MS
Matrix: Water
Analysis Batch: 389094

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 389021

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.17	U	1.00	1.09		ug/L		109	75 - 125

Lab Sample ID: 460-119333-F-3-K DU
Matrix: Water
Analysis Batch: 389094

Client Sample ID: Duplicate
Prep Type: Dissolved
Prep Batch: 389021

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.17	U	0.17	U	ug/L		NC	20

Lab Sample ID: 460-119489-4 MS
Matrix: Water
Analysis Batch: 389355

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Dissolved
Prep Batch: 389272

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.17	U	1.00	0.986		ug/L		99	75 - 125

Lab Sample ID: 460-119489-4 DU
Matrix: Water
Analysis Batch: 389355

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Dissolved
Prep Batch: 389272

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.17	U	0.17	U	ug/L		NC	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 460-389074/1-A
Matrix: Water
Analysis Batch: 389260

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 389074

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.0020	U	0.010	0.0020	mg/L		09/07/16 15:17	09/08/16 10:05	1

Lab Sample ID: HLCS 460-389074/3-A
Matrix: Water
Analysis Batch: 389260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389074

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.200	0.185		mg/L		93	80 - 120

Lab Sample ID: LLCS 460-389074/2-A
Matrix: Water
Analysis Batch: 389260

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 389074

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0947		mg/L		95	80 - 120

Lab Sample ID: 460-119489-4 MS
Matrix: Water
Analysis Batch: 389260

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA
Prep Batch: 389074

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0022	J	0.200	0.175		mg/L		86	75 - 125

Lab Sample ID: 460-119489-4 MSD
Matrix: Water
Analysis Batch: 389260

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA
Prep Batch: 389074

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	0.0022	J	0.200	0.182		mg/L		90	75 - 125	4	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 460-389570/1
Matrix: Water
Analysis Batch: 389570

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0	mg/L			09/09/16 13:57	1
Alkalinity	5.0	U	5.0	5.0	mg/L			09/09/16 13:57	1

Lab Sample ID: LCSSRM 460-389570/2
Matrix: Water
Analysis Batch: 389570

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	44.1	44.22		mg/L		100.3	90.5 - 107.9

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 460-119489-4 DU
Matrix: Water
Analysis Batch: 389570

Client Sample ID: RW-14D(175-185)-082916
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	146			148.7		mg/L				2	17
Alkalinity	146			148.7		mg/L				2	17

GC/MS VOA

Analysis Batch: 388219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-1	TB-09-082916	Total/NA	Water	8260C SIM	
460-119489-2	FB-05-082916	Total/NA	Water	8260C SIM	
460-119489-3	RW-14S(135-155)-082916	Total/NA	Water	8260C SIM	
460-119489-4	RW-14D(175-185)-082916	Total/NA	Water	8260C SIM	
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	8260C SIM	
460-119489-6	RW-10S(120-130)-082916	Total/NA	Water	8260C SIM	
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	8260C SIM	
460-119489-8	RW-9(206-216)-083016	Total/NA	Water	8260C SIM	
MB 460-388219/9	Method Blank	Total/NA	Water	8260C SIM	
LCS 460-388219/5	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 460-388219/6	Lab Control Sample Dup	Total/NA	Water	8260C SIM	

Analysis Batch: 388349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-1	TB-09-082916	Total/NA	Water	8260C	
460-119489-2	FB-05-082916	Total/NA	Water	8260C	
460-119489-3	RW-14S(135-155)-082916	Total/NA	Water	8260C	
460-119489-4	RW-14D(175-185)-082916	Total/NA	Water	8260C	
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	8260C	
460-119489-6	RW-10S(120-130)-082916	Total/NA	Water	8260C	
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	8260C	
460-119489-8	RW-9(206-216)-083016	Total/NA	Water	8260C	
MB 460-388349/6	Method Blank	Total/NA	Water	8260C	
LCS 460-388349/4	Lab Control Sample	Total/NA	Water	8260C	
460-119489-4 MS	RW-14D(175-185)-082916	Total/NA	Water	8260C	
460-119489-4 MSD	RW-14D(175-185)-082916	Total/NA	Water	8260C	

GC/MS Semi VOA

Analysis Batch: 388366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Total/NA	Water	8270D SIM	388379
460-119489-3	RW-14S(135-155)-082916	Total/NA	Water	8270D SIM	388379
460-119489-4	RW-14D(175-185)-082916	Total/NA	Water	8270D SIM	388379
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	8270D SIM	388379
MB 460-388379/1-A	Method Blank	Total/NA	Water	8270D SIM	388379
LCS 460-388379/4-A	Lab Control Sample	Total/NA	Water	8270D SIM	388379

Prep Batch: 388379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Total/NA	Water	3510C	
460-119489-3	RW-14S(135-155)-082916	Total/NA	Water	3510C	
460-119489-4	RW-14D(175-185)-082916	Total/NA	Water	3510C	
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	3510C	
460-119489-6	RW-10S(120-130)-082916	Total/NA	Water	3510C	
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	3510C	
460-119489-8	RW-9(206-216)-083016	Total/NA	Water	3510C	
MB 460-388379/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-388379/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 460-388379/3-A	Lab Control Sample	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 388379 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 460-388379/4-A	Lab Control Sample	Total/NA	Water	3510C	
460-119489-4 MS	RW-14D(175-185)-082916	Total/NA	Water	3510C	
460-119489-4 MSD	RW-14D(175-185)-082916	Total/NA	Water	3510C	

Analysis Batch: 388720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Total/NA	Water	8270D	388379
460-119489-3	RW-14S(135-155)-082916	Total/NA	Water	8270D	388379
460-119489-4	RW-14D(175-185)-082916	Total/NA	Water	8270D	388379
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	8270D	388379
460-119489-6	RW-10S(120-130)-082916	Total/NA	Water	8270D	388379
MB 460-388379/1-A	Method Blank	Total/NA	Water	8270D	388379
LCS 460-388379/2-A	Lab Control Sample	Total/NA	Water	8270D	388379
LCS 460-388379/3-A	Lab Control Sample	Total/NA	Water	8270D	388379
460-119489-4 MS	RW-14D(175-185)-082916	Total/NA	Water	8270D	388379
460-119489-4 MSD	RW-14D(175-185)-082916	Total/NA	Water	8270D	388379

Analysis Batch: 388728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-6	RW-10S(120-130)-082916	Total/NA	Water	8270D SIM	388379
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	8270D SIM	388379
460-119489-8	RW-9(206-216)-083016	Total/NA	Water	8270D SIM	388379

Analysis Batch: 388875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	8270D	388379
460-119489-8	RW-9(206-216)-083016	Total/NA	Water	8270D	388379

GC Semi VOA

Prep Batch: 388507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Total/NA	Water	3510C	
460-119489-3	RW-14S(135-155)-082916	Total/NA	Water	3510C	
460-119489-4	RW-14D(175-185)-082916	Total/NA	Water	3510C	
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	3510C	
460-119489-6	RW-10S(120-130)-082916	Total/NA	Water	3510C	
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	3510C	
MB 460-388507/1-A	Method Blank	Total/NA	Water	3510C	
LCS 460-388507/2-A	Lab Control Sample	Total/NA	Water	3510C	
460-119489-4 MS	RW-14D(175-185)-082916	Total/NA	Water	3510C	
460-119489-4 MSD	RW-14D(175-185)-082916	Total/NA	Water	3510C	

Analysis Batch: 388760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Total/NA	Water	8082A	388507
460-119489-3	RW-14S(135-155)-082916	Total/NA	Water	8082A	388507
460-119489-4	RW-14D(175-185)-082916	Total/NA	Water	8082A	388507
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	8082A	388507
460-119489-6	RW-10S(120-130)-082916	Total/NA	Water	8082A	388507

GC Semi VOA (Continued)

Analysis Batch: 388760 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	8082A	388507
MB 460-388507/1-A	Method Blank	Total/NA	Water	8082A	388507
LCS 460-388507/2-A	Lab Control Sample	Total/NA	Water	8082A	388507
460-119489-4 MS	RW-14D(175-185)-082916	Total/NA	Water	8082A	388507
460-119489-4 MSD	RW-14D(175-185)-082916	Total/NA	Water	8082A	388507

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Analysis Batch: 389772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Total/NA	Water	9056A	
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	9056A	
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	9056A	
MB 460-389772/3	Method Blank	Total/NA	Water	9056A	
LCS 460-389772/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-389772/5	Lab Control Sample Dup	Total/NA	Water	9056A	
460-119489-4 MS	RW-14D(175-185)-082916	Total/NA	Water	9056A	
460-119489-4 MSD	RW-14D(175-185)-082916	Total/NA	Water	9056A	
460-119489-4 DU	RW-14D(175-185)-082916	Total/NA	Water	9056A	

Analysis Batch: 390003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-3 - DL	RW-14S(135-155)-082916	Total/NA	Water	9056A	
460-119489-4 - DL	RW-14D(175-185)-082916	Total/NA	Water	9056A	
460-119489-6 - DL	RW-10S(120-130)-082916	Total/NA	Water	9056A	
MB 460-390003/3	Method Blank	Total/NA	Water	9056A	
LCS 460-390003/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-390003/6	Lab Control Sample Dup	Total/NA	Water	9056A	
460-119489-6 MS - DL	RW-10S(120-130)-082916	Total/NA	Water	9056A	
460-119489-6 MSD - DL	RW-10S(120-130)-082916	Total/NA	Water	9056A	
460-119679-A-2 DU - DL	Duplicate	Total/NA	Water	9056A	

Analysis Batch: 390225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-5 - DL2	RW-10A(51-61)-082916	Total/NA	Water	9056A	
MB 460-390225/3	Method Blank	Total/NA	Water	9056A	
LCS 460-390225/5	Lab Control Sample	Total/NA	Water	9056A	
LCSD 460-390225/6	Lab Control Sample Dup	Total/NA	Water	9056A	
460-119489-5 MS - DL	RW-10A(51-61)-082916	Total/NA	Water	9056A	
460-119489-5 MSD - DL	RW-10A(51-61)-082916	Total/NA	Water	9056A	
460-119489-5 DU - DL	RW-10A(51-61)-082916	Total/NA	Water	9056A	

Metals

Prep Batch: 388670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Total/NA	Water	3010A	
MB 460-388670/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-388670/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-119333-E-3-C MS ^2	Matrix Spike	Total/NA	Water	3010A	

Metals (Continued)

Prep Batch: 388670 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119333-E-3-B DU ^2	Duplicate	Total/NA	Water	3010A	

Prep Batch: 388801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-3	RW-14S(135-155)-082916	Total/NA	Water	3010A	
460-119489-4	RW-14D(175-185)-082916	Total/NA	Water	3010A	
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	3010A	
460-119489-6	RW-10S(120-130)-082916	Total/NA	Water	3010A	
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	3010A	
460-119489-8	RW-9(206-216)-083016	Total/NA	Water	3010A	
MB 460-388801/1-A ^2	Method Blank	Total/NA	Water	3010A	
LCS 460-388801/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-119489-4 MS	RW-14D(175-185)-082916	Total/NA	Water	3010A	
460-119489-4 DU	RW-14D(175-185)-082916	Total/NA	Water	3010A	

Filtration Batch: 388897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Dissolved	Water	FILTRATION	
460-119333-F-3-L MS	Matrix Spike	Dissolved	Water	FILTRATION	
460-119333-F-3-K DU	Duplicate	Dissolved	Water	FILTRATION	

Filtration Batch: 388900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-3	RW-14S(135-155)-082916	Dissolved	Water	FILTRATION	
460-119489-4	RW-14D(175-185)-082916	Dissolved	Water	FILTRATION	
460-119489-5	RW-10A(51-61)-082916	Dissolved	Water	FILTRATION	
460-119489-6	RW-10S(120-130)-082916	Dissolved	Water	FILTRATION	
460-119489-7	RW-9A(85-95)-083016	Dissolved	Water	FILTRATION	
460-119489-4 MS	RW-14D(175-185)-082916	Dissolved	Water	FILTRATION	
460-119489-4 DU	RW-14D(175-185)-082916	Dissolved	Water	FILTRATION	

Filtration Batch: 389010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Dissolved	Water	FILTRATION	
460-119489-3	RW-14S(135-155)-082916	Dissolved	Water	FILTRATION	
460-119489-4	RW-14D(175-185)-082916	Dissolved	Water	FILTRATION	
460-119489-5	RW-10A(51-61)-082916	Dissolved	Water	FILTRATION	
460-119489-6	RW-10S(120-130)-082916	Dissolved	Water	FILTRATION	
460-119489-7	RW-9A(85-95)-083016	Dissolved	Water	FILTRATION	
MB 460-389010/1-C ^2	Method Blank	Dissolved	Water	FILTRATION	
460-119489-4 MS	RW-14D(175-185)-082916	Dissolved	Water	FILTRATION	
460-119489-4 DU	RW-14D(175-185)-082916	Dissolved	Water	FILTRATION	

Prep Batch: 389018

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Total/NA	Water	7470A	
460-119489-3	RW-14S(135-155)-082916	Total/NA	Water	7470A	
460-119489-4	RW-14D(175-185)-082916	Total/NA	Water	7470A	
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	7470A	
460-119489-6	RW-10S(120-130)-082916	Total/NA	Water	7470A	
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 389018 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-8	RW-9(206-216)-083016	Total/NA	Water	7470A	
MB 460-389018/1-A	Method Blank	Total/NA	Water	7470A	
LCS 460-389018/2-A	Lab Control Sample	Total/NA	Water	7470A	
460-119489-4 MS	RW-14D(175-185)-082916	Total/NA	Water	7470A	
460-119489-4 DU	RW-14D(175-185)-082916	Total/NA	Water	7470A	

Prep Batch: 389021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Dissolved	Water	7470A	388897
460-119489-3	RW-14S(135-155)-082916	Dissolved	Water	7470A	388900
MB 460-389021/4-A	Method Blank	Total/NA	Water	7470A	
LCS 460-389021/5-A	Lab Control Sample	Total/NA	Water	7470A	
460-119333-F-3-L MS	Matrix Spike	Dissolved	Water	7470A	388897
460-119333-F-3-K DU	Duplicate	Dissolved	Water	7470A	388897

Analysis Batch: 389030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Total/NA	Water	6020A	388670
MB 460-388670/1-A ^2	Method Blank	Total/NA	Water	6020A	388670
LCS 460-388670/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	388670
460-119333-E-3-C MS ^2	Matrix Spike	Total/NA	Water	6020A	388670
460-119333-E-3-B DU ^2	Duplicate	Total/NA	Water	6020A	388670

Prep Batch: 389040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Dissolved	Water	3010A	389010
460-119489-3	RW-14S(135-155)-082916	Dissolved	Water	3010A	389010
460-119489-4	RW-14D(175-185)-082916	Dissolved	Water	3010A	389010
460-119489-5	RW-10A(51-61)-082916	Dissolved	Water	3010A	389010
460-119489-6	RW-10S(120-130)-082916	Dissolved	Water	3010A	389010
460-119489-7	RW-9A(85-95)-083016	Dissolved	Water	3010A	389010
MB 460-389010/1-C ^2	Method Blank	Dissolved	Water	3010A	389010
LCS 460-389040/2-A ^2	Lab Control Sample	Total/NA	Water	3010A	
460-119489-4 MS	RW-14D(175-185)-082916	Dissolved	Water	3010A	389010
460-119489-4 DU	RW-14D(175-185)-082916	Dissolved	Water	3010A	389010

Analysis Batch: 389094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Dissolved	Water	7470A	389021
460-119489-2	FB-05-082916	Total/NA	Water	7470A	389018
460-119489-3	RW-14S(135-155)-082916	Dissolved	Water	7470A	389021
460-119489-3	RW-14S(135-155)-082916	Total/NA	Water	7470A	389018
460-119489-4	RW-14D(175-185)-082916	Total/NA	Water	7470A	389018
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	7470A	389018
460-119489-6	RW-10S(120-130)-082916	Total/NA	Water	7470A	389018
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	7470A	389018
460-119489-8	RW-9(206-216)-083016	Total/NA	Water	7470A	389018
MB 460-389018/1-A	Method Blank	Total/NA	Water	7470A	389018
MB 460-389021/4-A	Method Blank	Total/NA	Water	7470A	389021
LCS 460-389018/2-A	Lab Control Sample	Total/NA	Water	7470A	389018
LCS 460-389021/5-A	Lab Control Sample	Total/NA	Water	7470A	389021

Metals (Continued)

Analysis Batch: 389094 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119333-F-3-L MS	Matrix Spike	Dissolved	Water	7470A	389021
460-119489-4 MS	RW-14D(175-185)-082916	Total/NA	Water	7470A	389018
460-119333-F-3-K DU	Duplicate	Dissolved	Water	7470A	389021
460-119489-4 DU	RW-14D(175-185)-082916	Total/NA	Water	7470A	389018

Analysis Batch: 389242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Dissolved	Water	6020A	389040
460-119489-3	RW-14S(135-155)-082916	Dissolved	Water	6020A	389040
460-119489-4	RW-14D(175-185)-082916	Dissolved	Water	6020A	389040
460-119489-5	RW-10A(51-61)-082916	Dissolved	Water	6020A	389040
460-119489-6	RW-10S(120-130)-082916	Dissolved	Water	6020A	389040
460-119489-7	RW-9A(85-95)-083016	Dissolved	Water	6020A	389040
MB 460-389010/1-C ^2	Method Blank	Dissolved	Water	6020A	389040
LCS 460-389040/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	389040
460-119489-4 MS	RW-14D(175-185)-082916	Dissolved	Water	6020A	389040
460-119489-4 DU	RW-14D(175-185)-082916	Dissolved	Water	6020A	389040

Prep Batch: 389272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-4	RW-14D(175-185)-082916	Dissolved	Water	7470A	388900
460-119489-5	RW-10A(51-61)-082916	Dissolved	Water	7470A	388900
460-119489-6	RW-10S(120-130)-082916	Dissolved	Water	7470A	388900
460-119489-7	RW-9A(85-95)-083016	Dissolved	Water	7470A	388900
MB 460-389272/3-A	Method Blank	Total/NA	Water	7470A	
LCS 460-389272/4-A	Lab Control Sample	Total/NA	Water	7470A	
460-119489-4 MS	RW-14D(175-185)-082916	Dissolved	Water	7470A	388900
460-119489-4 DU	RW-14D(175-185)-082916	Dissolved	Water	7470A	388900

Analysis Batch: 389355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-4	RW-14D(175-185)-082916	Dissolved	Water	7470A	389272
460-119489-5	RW-10A(51-61)-082916	Dissolved	Water	7470A	389272
460-119489-6	RW-10S(120-130)-082916	Dissolved	Water	7470A	389272
460-119489-7	RW-9A(85-95)-083016	Dissolved	Water	7470A	389272
MB 460-389272/3-A	Method Blank	Total/NA	Water	7470A	389272
LCS 460-389272/4-A	Lab Control Sample	Total/NA	Water	7470A	389272
460-119489-4 MS	RW-14D(175-185)-082916	Dissolved	Water	7470A	389272
460-119489-4 DU	RW-14D(175-185)-082916	Dissolved	Water	7470A	389272

Analysis Batch: 389484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-7	RW-9A(85-95)-083016	Dissolved	Water	6020A	389040

Analysis Batch: 389607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Total/NA	Water	6020A	388670
MB 460-388670/1-A ^2	Method Blank	Total/NA	Water	6020A	388670
LCS 460-388670/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	388670
460-119333-E-3-C MS ^2	Matrix Spike	Total/NA	Water	6020A	388670
460-119333-E-3-B DU ^2	Duplicate	Total/NA	Water	6020A	388670

Analysis Batch: 389774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-3	RW-14S(135-155)-082916	Total/NA	Water	6020A	388801
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	6020A	388801
460-119489-6	RW-10S(120-130)-082916	Total/NA	Water	6020A	388801
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	6020A	388801
460-119489-8	RW-9(206-216)-083016	Total/NA	Water	6020A	388801

Analysis Batch: 389976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-3	RW-14S(135-155)-082916	Total/NA	Water	6020A	388801
460-119489-4	RW-14D(175-185)-082916	Total/NA	Water	6020A	388801
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	6020A	388801
460-119489-6	RW-10S(120-130)-082916	Total/NA	Water	6020A	388801
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	6020A	388801
460-119489-8	RW-9(206-216)-083016	Total/NA	Water	6020A	388801
MB 460-388801/1-A ^2	Method Blank	Total/NA	Water	6020A	388801
LCS 460-388801/2-A ^2	Lab Control Sample	Total/NA	Water	6020A	388801
460-119489-4 MS	RW-14D(175-185)-082916	Total/NA	Water	6020A	388801
460-119489-4 DU	RW-14D(175-185)-082916	Total/NA	Water	6020A	388801

General Chemistry

Prep Batch: 389074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Total/NA	Water	9012B	
460-119489-3	RW-14S(135-155)-082916	Total/NA	Water	9012B	
460-119489-4	RW-14D(175-185)-082916	Total/NA	Water	9012B	
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	9012B	
460-119489-6	RW-10S(120-130)-082916	Total/NA	Water	9012B	
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	9012B	
460-119489-8	RW-9(206-216)-083016	Total/NA	Water	9012B	
MB 460-389074/1-A	Method Blank	Total/NA	Water	9012B	
HLCS 460-389074/3-A	Lab Control Sample	Total/NA	Water	9012B	
LLCS 460-389074/2-A	Lab Control Sample	Total/NA	Water	9012B	
460-119489-4 MS	RW-14D(175-185)-082916	Total/NA	Water	9012B	
460-119489-4 MSD	RW-14D(175-185)-082916	Total/NA	Water	9012B	

Analysis Batch: 389260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Total/NA	Water	9012B	389074
460-119489-3	RW-14S(135-155)-082916	Total/NA	Water	9012B	389074
460-119489-4	RW-14D(175-185)-082916	Total/NA	Water	9012B	389074
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	9012B	389074
460-119489-6	RW-10S(120-130)-082916	Total/NA	Water	9012B	389074
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	9012B	389074
460-119489-8	RW-9(206-216)-083016	Total/NA	Water	9012B	389074
MB 460-389074/1-A	Method Blank	Total/NA	Water	9012B	389074
HLCS 460-389074/3-A	Lab Control Sample	Total/NA	Water	9012B	389074
LLCS 460-389074/2-A	Lab Control Sample	Total/NA	Water	9012B	389074
460-119489-4 MS	RW-14D(175-185)-082916	Total/NA	Water	9012B	389074
460-119489-4 MSD	RW-14D(175-185)-082916	Total/NA	Water	9012B	389074

General Chemistry (Continued)

Analysis Batch: 389570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-119489-2	FB-05-082916	Total/NA	Water	SM 2320B	
460-119489-3	RW-14S(135-155)-082916	Total/NA	Water	SM 2320B	
460-119489-4	RW-14D(175-185)-082916	Total/NA	Water	SM 2320B	
460-119489-5	RW-10A(51-61)-082916	Total/NA	Water	SM 2320B	
460-119489-6	RW-10S(120-130)-082916	Total/NA	Water	SM 2320B	
460-119489-7	RW-9A(85-95)-083016	Total/NA	Water	SM 2320B	
MB 460-389570/1	Method Blank	Total/NA	Water	SM 2320B	
LCSSRM 460-389570/2	Lab Control Sample	Total/NA	Water	SM 2320B	
460-119489-4 DU	RW-14D(175-185)-082916	Total/NA	Water	SM 2320B	

Client Sample ID: TB-09-082916

Lab Sample ID: 460-119489-1

Date Collected: 08/29/16 00:00

Matrix: Water

Date Received: 08/30/16 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	388349	09/02/16 11:33	SZD	TAL EDI
Total/NA	Analysis	8260C SIM		1	388219	09/01/16 21:03	DAS	TAL EDI

Client Sample ID: FB-05-082916

Lab Sample ID: 460-119489-2

Date Collected: 08/29/16 07:20

Matrix: Water

Date Received: 08/30/16 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	388349	09/02/16 11:59	SZD	TAL EDI
Total/NA	Analysis	8260C SIM		1	388219	09/01/16 21:28	DAS	TAL EDI
Total/NA	Prep	3510C			388379	09/02/16 09:20	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388720	09/06/16 11:57	MMC	TAL EDI
Total/NA	Prep	3510C			388379	09/02/16 09:20	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388366	09/04/16 21:02	MMC	TAL EDI
Total/NA	Prep	3510C			388507	09/02/16 19:39	RAR	TAL EDI
Total/NA	Analysis	8082A		1	388760	09/06/16 15:12	JHP	TAL EDI
Total/NA	Analysis	9056A		1	389772	09/11/16 06:12	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389040	09/07/16 12:41	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389242	09/07/16 17:36	MDC	TAL EDI
Total/NA	Prep	3010A			388670	09/04/16 19:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389030	09/07/16 11:34	VAD	TAL EDI
Total/NA	Prep	3010A			388670	09/04/16 19:27	EAE	TAL EDI
Total/NA	Analysis	6020A		2	389607	09/10/16 08:39	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			388897	09/06/16 17:16	RBS	TAL EDI
Dissolved	Prep	7470A			389021	09/07/16 11:41	RBS	TAL EDI
Dissolved	Analysis	7470A		1	389094	09/07/16 15:38	RBS	TAL EDI
Total/NA	Prep	7470A			389018	09/07/16 11:28	RBS	TAL EDI
Total/NA	Analysis	7470A		1	389094	09/07/16 13:47	RBS	TAL EDI
Total/NA	Prep	9012B			389074	09/07/16 15:17	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389260	09/08/16 10:12	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	389570	09/09/16 13:57	HTV	TAL EDI

Client Sample ID: RW-14S(135-155)-082916

Lab Sample ID: 460-119489-3

Date Collected: 08/29/16 08:45

Matrix: Water

Date Received: 08/30/16 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	388349	09/02/16 13:18	SZD	TAL EDI
Total/NA	Analysis	8260C SIM		1	388219	09/02/16 01:38	DAS	TAL EDI
Total/NA	Prep	3510C			388379	09/02/16 09:20	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388720	09/06/16 12:17	MMC	TAL EDI

Client Sample ID: RW-14S(135-155)-082916

Lab Sample ID: 460-119489-3

Date Collected: 08/29/16 08:45

Matrix: Water

Date Received: 08/30/16 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			388379	09/02/16 09:20	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388366	09/04/16 21:30	MMC	TAL EDI
Total/NA	Prep	3510C			388507	09/02/16 19:39	RAR	TAL EDI
Total/NA	Analysis	8082A		1	388760	09/06/16 14:57	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	20	390003	09/12/16 17:05	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389040	09/07/16 12:41	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389242	09/07/16 17:42	MDC	TAL EDI
Total/NA	Prep	3010A			388801	09/06/16 09:51	QZY	TAL EDI
Total/NA	Analysis	6020A		2	389774	09/10/16 19:44	PHP	TAL EDI
Total/NA	Prep	3010A			388801	09/06/16 09:51	QZY	TAL EDI
Total/NA	Analysis	6020A		2	389976	09/11/16 19:16	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			388900	09/06/16 17:25	RBS	TAL EDI
Dissolved	Prep	7470A			389021	09/07/16 11:41	RBS	TAL EDI
Dissolved	Analysis	7470A		1	389094	09/07/16 15:40	RBS	TAL EDI
Total/NA	Prep	7470A			389018	09/07/16 11:28	RBS	TAL EDI
Total/NA	Analysis	7470A		1	389094	09/07/16 14:06	RBS	TAL EDI
Total/NA	Prep	9012B			389074	09/07/16 15:17	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389260	09/08/16 10:16	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	389570	09/09/16 13:57	HTV	TAL EDI

Client Sample ID: RW-14D(175-185)-082916

Lab Sample ID: 460-119489-4

Date Collected: 08/29/16 09:40

Matrix: Water

Date Received: 08/30/16 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	388349	09/02/16 12:52	SZD	TAL EDI
Total/NA	Analysis	8260C SIM		1	388219	09/02/16 02:03	DAS	TAL EDI
Total/NA	Prep	3510C			388379	09/02/16 09:20	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388720	09/06/16 11:38	MMC	TAL EDI
Total/NA	Prep	3510C			388379	09/02/16 09:20	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388366	09/04/16 20:33	MMC	TAL EDI
Total/NA	Prep	3510C			388507	09/02/16 19:39	RAR	TAL EDI
Total/NA	Analysis	8082A		1	388760	09/06/16 11:58	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	20	390003	09/12/16 17:24	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:27	MDC	TAL EDI
Dissolved	Prep	3010A			389040	09/07/16 12:41	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389242	09/07/16 17:25	MDC	TAL EDI
Total/NA	Prep	3010A			388801	09/06/16 09:51	QZY	TAL EDI
Total/NA	Analysis	6020A		2	389976	09/11/16 19:02	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			388900	09/06/16 17:25	RBS	TAL EDI
Dissolved	Prep	7470A			389272	09/08/16 11:54	RBS	TAL EDI
Dissolved	Analysis	7470A		1	389355	09/08/16 15:32	RBS	TAL EDI

Client Sample ID: RW-14D(175-185)-082916

Lab Sample ID: 460-119489-4

Date Collected: 08/29/16 09:40

Matrix: Water

Date Received: 08/30/16 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			389018	09/07/16 11:28	RBS	TAL EDI
Total/NA	Analysis	7470A		1	389094	09/07/16 13:24	RBS	TAL EDI
Total/NA	Prep	9012B			389074	09/07/16 15:17	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389260	09/08/16 10:08	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	389570	09/09/16 13:57	HTV	TAL EDI

Client Sample ID: RW-10A(51-61)-082916

Lab Sample ID: 460-119489-5

Date Collected: 08/29/16 12:20

Matrix: Water

Date Received: 08/30/16 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	388349	09/02/16 13:44	SZD	TAL EDI
Total/NA	Analysis	8260C SIM		1	388219	09/02/16 02:28	DAS	TAL EDI
Total/NA	Prep	3510C			388379	09/02/16 09:20	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388720	09/06/16 12:37	MMC	TAL EDI
Total/NA	Prep	3510C			388379	09/02/16 09:20	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388366	09/04/16 21:59	MMC	TAL EDI
Total/NA	Prep	3510C			388507	09/02/16 19:39	RAR	TAL EDI
Total/NA	Analysis	8082A		1	388760	09/06/16 14:09	JHP	TAL EDI
Total/NA	Analysis	9056A		1	389772	09/11/16 07:44	CDC	TAL EDI
Total/NA	Analysis	9056A	DL2	5	390225	09/13/16 14:46	MJA	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:32	MDC	TAL EDI
Dissolved	Prep	3010A			389040	09/07/16 12:41	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389242	09/07/16 17:48	MDC	TAL EDI
Total/NA	Prep	3010A			388801	09/06/16 09:51	QZY	TAL EDI
Total/NA	Analysis	6020A		2	389774	09/10/16 19:46	PHP	TAL EDI
Total/NA	Prep	3010A			388801	09/06/16 09:51	QZY	TAL EDI
Total/NA	Analysis	6020A		2	389976	09/11/16 19:18	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			388900	09/06/16 17:25	RBS	TAL EDI
Dissolved	Prep	7470A			389272	09/08/16 11:54	RBS	TAL EDI
Dissolved	Analysis	7470A		1	389355	09/08/16 16:02	RBS	TAL EDI
Total/NA	Prep	7470A			389018	09/07/16 11:28	RBS	TAL EDI
Total/NA	Analysis	7470A		1	389094	09/07/16 14:08	RBS	TAL EDI
Total/NA	Prep	9012B			389074	09/07/16 15:17	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389260	09/08/16 10:17	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	389570	09/09/16 13:57	HTV	TAL EDI

Client Sample ID: RW-10S(120-130)-082916

Lab Sample ID: 460-119489-6

Date Collected: 08/29/16 14:30

Matrix: Water

Date Received: 08/30/16 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	388349	09/02/16 14:10	SZD	TAL EDI

Client Sample ID: RW-10S(120-130)-082916

Lab Sample ID: 460-119489-6

Date Collected: 08/29/16 14:30

Matrix: Water

Date Received: 08/30/16 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		1	388219	09/02/16 02:53	DAS	TAL EDI
Total/NA	Prep	3510C			388379	09/02/16 09:20	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388720	09/06/16 12:56	MMC	TAL EDI
Total/NA	Prep	3510C			388379	09/02/16 09:20	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388728	09/06/16 20:34	CAZ	TAL EDI
Total/NA	Prep	3510C			388507	09/02/16 19:39	RAR	TAL EDI
Total/NA	Analysis	8082A		1	388760	09/06/16 13:54	JHP	TAL EDI
Total/NA	Analysis	9056A	DL	10	390003	09/12/16 18:00	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:32	MDC	TAL EDI
Dissolved	Prep	3010A			389040	09/07/16 12:41	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389242	09/07/16 17:53	MDC	TAL EDI
Total/NA	Prep	3010A			388801	09/06/16 09:51	QZY	TAL EDI
Total/NA	Analysis	6020A		2	389774	09/10/16 19:57	PHP	TAL EDI
Total/NA	Prep	3010A			388801	09/06/16 09:51	QZY	TAL EDI
Total/NA	Analysis	6020A		2	389976	09/11/16 19:21	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			388900	09/06/16 17:25	RBS	TAL EDI
Dissolved	Prep	7470A			389272	09/08/16 11:54	RBS	TAL EDI
Dissolved	Analysis	7470A		1	389355	09/08/16 16:04	RBS	TAL EDI
Total/NA	Prep	7470A			389018	09/07/16 11:28	RBS	TAL EDI
Total/NA	Analysis	7470A		1	389094	09/07/16 14:09	RBS	TAL EDI
Total/NA	Prep	9012B			389074	09/07/16 15:17	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389260	09/08/16 10:18	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	389570	09/09/16 13:57	HTV	TAL EDI

Client Sample ID: RW-9A(85-95)-083016

Lab Sample ID: 460-119489-7

Date Collected: 08/30/16 07:50

Matrix: Water

Date Received: 08/30/16 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	388349	09/02/16 14:36	SZD	TAL EDI
Total/NA	Analysis	8260C SIM		1	388219	09/02/16 03:18	DAS	TAL EDI
Total/NA	Prep	3510C			388379	09/02/16 09:20	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388875	09/06/16 20:43	MMC	TAL EDI
Total/NA	Prep	3510C			388379	09/02/16 09:20	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388728	09/06/16 21:04	CAZ	TAL EDI
Total/NA	Prep	3510C			388507	09/02/16 19:39	RAR	TAL EDI
Total/NA	Analysis	8082A		1	388760	09/06/16 13:39	JHP	TAL EDI
Total/NA	Analysis	9056A		1	389772	09/11/16 08:20	CDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:32	MDC	TAL EDI
Dissolved	Prep	3010A			389040	09/07/16 12:41	MDC	TAL EDI
Dissolved	Analysis	6020A		2	389242	09/07/16 13:47	MDC	TAL EDI
Dissolved	Filtration	FILTRATION			389010	09/07/16 10:32	MDC	TAL EDI
Dissolved	Prep	3010A			389040	09/07/16 12:41	MDC	TAL EDI

Lab Chronicle

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Client Sample ID: RW-9A(85-95)-083016

Lab Sample ID: 460-119489-7

Date Collected: 08/30/16 07:50
Matrix: Water
Date Received: 08/30/16 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	6020A		2	389484	09/08/16 19:16	MDC	TAL EDI
Total/NA	Prep	3010A			388801	09/06/16 09:51	QZY	TAL EDI
Total/NA	Analysis	6020A		2	389774	09/10/16 19:59	PHP	TAL EDI
Total/NA	Prep	3010A			388801	09/06/16 09:51	QZY	TAL EDI
Total/NA	Analysis	6020A		2	389976	09/11/16 19:23	PHP	TAL EDI
Dissolved	Filtration	FILTRATION			388900	09/06/16 17:25	RBS	TAL EDI
Dissolved	Prep	7470A			389272	09/08/16 11:54	RBS	TAL EDI
Dissolved	Analysis	7470A		1	389355	09/08/16 16:06	RBS	TAL EDI
Total/NA	Prep	7470A			389018	09/07/16 11:28	RBS	TAL EDI
Total/NA	Analysis	7470A		1	389094	09/07/16 14:11	RBS	TAL EDI
Total/NA	Prep	9012B			389074	09/07/16 15:17	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389260	09/08/16 10:19	MAL	TAL EDI
Total/NA	Analysis	SM 2320B		1	389570	09/09/16 13:57	HTV	TAL EDI

Client Sample ID: RW-9(206-216)-083016

Lab Sample ID: 460-119489-8

Date Collected: 08/30/16 09:45
Matrix: Water
Date Received: 08/30/16 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	388349	09/02/16 15:03	SZD	TAL EDI
Total/NA	Analysis	8260C SIM		1	388219	09/02/16 03:43	DAS	TAL EDI
Total/NA	Prep	3510C			388379	09/02/16 09:20	GRB	TAL EDI
Total/NA	Analysis	8270D		1	388875	09/06/16 21:03	MMC	TAL EDI
Total/NA	Prep	3510C			388379	09/02/16 09:20	GRB	TAL EDI
Total/NA	Analysis	8270D SIM		1	388728	09/06/16 21:33	CAZ	TAL EDI
Total/NA	Prep	3010A			388801	09/06/16 09:51	QZY	TAL EDI
Total/NA	Analysis	6020A		2	389774	09/10/16 20:02	PHP	TAL EDI
Total/NA	Prep	3010A			388801	09/06/16 09:51	QZY	TAL EDI
Total/NA	Analysis	6020A		2	389976	09/11/16 19:26	PHP	TAL EDI
Total/NA	Prep	7470A			389018	09/07/16 11:28	RBS	TAL EDI
Total/NA	Analysis	7470A		1	389094	09/07/16 14:13	RBS	TAL EDI
Total/NA	Prep	9012B			389074	09/07/16 15:17	MBE	TAL EDI
Total/NA	Analysis	9012B		1	389260	09/08/16 10:35	MAL	TAL EDI

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Certification Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Laboratory: TestAmerica Edison

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
New Jersey	NELAP	2	12028	06-30-17

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2,4-Trichlorobenzene
8260C SIM		Water	1,2,3-Trichloropropane
8260C SIM		Water	1,2-Dibromo-3-Chloropropane
8260C SIM		Water	Ethylene Dibromide
8270D SIM	3510C	Water	Bis(2-chloroethyl)ether
9056A		Water	Chloride
9056A		Water	Sulfate

Method Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8260C SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
9056A	Anions, Ion Chromatography	SW846	TAL EDI
6020A	Metals (ICP/MS)	SW846	TAL EDI
7470A	Mercury (CVAA)	SW846	TAL EDI
9012B	Cyanide, Total andor Amenable	SW846	TAL EDI
SM 2320B	Alkalinity	SM	TAL EDI

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater",
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = TestAmerica Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Cornerstone Environmental Group, LLC
Project/Site: FORD Ringwood Mines E203361

TestAmerica Job ID: 460-119489-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-119489-1	TB-09-082916	Water	08/29/16 00:00	08/30/16 19:30
460-119489-2	FB-05-082916	Water	08/29/16 07:20	08/30/16 19:30
460-119489-3	RW-14S(135-155)-082916	Water	08/29/16 08:45	08/30/16 19:30
460-119489-4	RW-14D(175-185)-082916	Water	08/29/16 09:40	08/30/16 19:30
460-119489-5	RW-10A(51-61)-082916	Water	08/29/16 12:20	08/30/16 19:30
460-119489-6	RW-10S(120-130)-082916	Water	08/29/16 14:30	08/30/16 19:30
460-119489-7	RW-9A(85-95)-083016	Water	08/30/16 07:50	08/30/16 19:30
460-119489-8	RW-9(206-216)-083016	Water	08/30/16 09:45	08/30/16 19:30

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CU 460-119489 Chain of Custody

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Page ____ of ____

Name (for report and invoice) Tim Roeper	Samplers Name (Printed) John Kreiger / Dan Wheeler	Site/Project Identification Ringwood Mine	
Company Cornerstone Env. Group	P. O. # 140802-015	State (Location of site): NJ: ☒ NY: ☐ Other:	
Address 100 Crystal Run Rd Suite 101	Analysis Turnaround Time: Standard ☒	Regulatory Program:	DKQP: ☐
City Middletown State NY 10941	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐		LAB USE ONLY Project No: Job No.: 119489
Phone 845-695-0200 Fax			

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + TICs 8260B	TCL SVOC + 8270C	TAL Metals Filtered 6010B 7470A	PCBs 8082A	Alkalinity 2320B	Chloride	Sulfate	Cyanide 9012B	TAL Metals Unfiltered 6010B 7470A	Sample Numbers
TB-09-082916	08/29/16	-	BW	3	X									-1
FB-05-082916	08/29/16	0720	BW	13	X	X	X	X	X	X	X	X	X	-2
RW-MS (135-155)-082916	08/29/16	0845	GW	13	X	X	X	X	X	X	X	X	X	-3
RW-MD (175-185)-082916	08/29/16	0940	GW	13	X	X	X	X	X	X	X	X	X	-4
RW-MD (175-185)-082916-MS	08/29/16	0940	GW	13	X	X	X	X	X	X	X	X	X	-4
RW-MD (175-185)-082916-MSD	08/29/16	0940	GW	13	X	X	X	X	X	X	X	X	X	-4
RW-10A (51-61)-082916	08/29/16	1220	GW	13	X	X	X	X	X	X	X	X	X	-5
RW-10S (120-130)-082916	08/29/16	1430	GW	13	X	X	X	X	X	X	X	X	X	-6
RW-9A (85-95)-083016	08/30/16	0750	GW	13	X	X	X	X	X	X	X	X	X	-7
RW-9 (206-216)-083016	08/30/16	0945	GW	7	X	X	-					X	X	-8
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH Soil:														
6 = Other ____, 7 = Other ____ Water:														

Special Instructions: DO NOT REPORT 1,4 DIOXANE FOR VOCS AND SVOCS Water Metals Filtered (Yes/No)? ____

	Relinquished by	Company	Date / Time	Received by	Company
1	Daniel Wheeler	Cornerstone	8/30/16 1515	Luisa Arieta	TA
2	Luisa Arieta	TA	8/30/16 1930	Kelly Kunsch	TA 8/30/16 1930
3					
4					

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578) NOCs #7 1.2, 1.6, 1.0

9/14/2016

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 119489

Number of Coolers: 3 IR Gun # 7

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	1.2 °C	1.2 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	1.6 °C	1.6 °C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	1.0 °C	1.0 °C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other
2				<2								>12			
3				<2								>12			
4				<2								>12			
4 DUP/MSD				<2								>12			
4 MS				<2								>12			
5				<2								>12			
6				<2								>12			
7				<2								>12			
8				<2								>12			

If pH adjustments are required record the information below:

Sample No(s). adjusted: NA

Preservative Name/Conc.: NA Volume of Preservative used (ml): NA

Lot # of Preservative(s): NA Expiration Date: NA

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: LS Date: 8/30/16

Login Sample Receipt Checklist

Client: Cornerstone Environmental Group, LLC

Job Number: 460-119489-1

Login Number: 119489
List Number: 1
Creator: Rivera, Kenneth

List Source: TestAmerica Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2°C, 1.6°C, 1°C, IR #7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	False	See NCM
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

ALPHA ANALYTICAL

World Class Chemistry

www.alphalab.com

Lab Number: L1625725

Client: Cornerstone/Cadena Co. joint acc

ATTN: Jim Tomalia

Project Name: RINGWOOD MINE/ LANDFILL

Project Number: 140802-015

September 20, 2016

Data Deliverable Revision Narrative
Alpha SDG: L1625725
Client: Cornerstone Environmental Group, LLC
Site: FORD-RINGWOOD

This data package replaces the data package issued on August 25, 2016. The package type has changed to DPKG-FULL.

Table of Contents

Table of Contents

Sample Delivery Group Information

Sample Delivery Group Form

Laboratory Job number: L1625725
Project Manager: Nichole Hunt **Review Date:** 08/19/2016
Project Number: 140802-015
Project Name: RINGWOOD MINE/ LANDFILL **Received:** 08/17/2016 09:04
Client Account: Cornerstone/Cadena Co. joint account **Received by:** KB

Samples Delivered by: COURIER **Call Tracker #**
Bill Of Laden N/A **Trackingnum**
Coc Present Present

Container Status Intact **Sample IDs** rec'd in MF at 3.0 & 2.0 c (9849).

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt 7 **Are samples Properly Preserved?** Yes
Initial pH **preserved in house with** **Final pH**
Other Issues
Chlorine Check N/A

Are VOA/VPH Vials Present? No
Aqueous: Do Vials Contain Head Space? N/A
Soils: Is MeOHCovering the Soil? N/A
Reagent H2O Preserved vials Frozen on N/A
Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
B	Absent	Yes	No	3.0 - IR Gun	No	No

A	Absent	Yes	No	5.7 - IR Gun	No	No

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 29 2016, 05:51 pm

Login Number: L1625725

Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015

Received: 17AUG16 Due Date: 26AUG16

Sample #	Client ID	Mat	PR	Collected	Container
L1625725-01	FB-1-081616	1	S0	16AUG16 09:00	2-Amber-A.5
| DPKG-FULL Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB,DPKG-FULL,NJDEP					
L1625725-02	OB-17-081616	1	S0	16AUG16 09:50	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625725-03	OB-18-081616	1	S0	16AUG16 10:10	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625725-04	OB-10-081616	1	S0	16AUG16 10:00	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625725-05	OB-16-081616	1	S0	16AUG16 11:00	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625725-06	OB-28-081616	1	S0	16AUG16 12:05	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625725-07	DUP-1-081616	1	S0	16AUG16 12:00	2-Amber-A.5
| Package Due Date: 08/24/16					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 29 2016, 05:51 pm

Login Number: L1625725

Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015

Received: 17AUG16 Due Date: 26AUG16

Sample #	Client ID	Mat	PR	Collected	Container
A2-14-DIOXANESIM-PPB					
L1625725-08	OB-29-081616		1	S0 16AUG16 11:40	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625725-09	OB-13-081616		1	S0 16AUG16 14:00	6-Amber-A.5
L1625725-09 MS L1625725-09 MSD	Package Due Date: 08/24/16				
A2-14-DIOXANESIM-PPB,MS/MSD					
L1625725-10	OB-14A-081616		1	S0 16AUG16 14:30	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625725-11	OB-14B-081616		1	S0 16AUG16 14:35	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625725-12	OB-24-081616		1	S0 16AUG16 15:40	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625725-13	RW-16-081616		1	S0 16AUG16 15:45	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 29 2016, 05:51 pm

Login Number: L1625725

Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015

Received: 17AUG16 Due Date: 26AUG16

Sample #	Client ID	Mat	PR	Collected	Container
L1625725-14	OB-03-081616	1	S0	16AUG16 16:10	2-Amber-A.5

| Package Due Date: 08/24/16

A2-14-DIOXANESIM-PPB

Logged By: Nichole Hunt

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1625725-01A	Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz
L1625725-01A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1625725-01A	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-01A	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-01B	Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1625725-01B	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-01B	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-02A	Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz
L1625725-02A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1625725-02A	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-02A	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-02B	Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1625725-02B	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-02B	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-03A	Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz
L1625725-03A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1625725-03A	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-03A	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-03B	Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1625725-03B	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-03B	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-04A	Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz
L1625725-04A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1625725-04A	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-04A	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey

Container ID	Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1625725-04B	Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1625725-04B	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-04B	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-05A	Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz
L1625725-05A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1625725-05A	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-05A	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-05B	Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1625725-05B	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-05B	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-06A	Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz
L1625725-06A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1625725-06A	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-06A	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-06B	Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1625725-06B	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-06B	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-07A	Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz
L1625725-07A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1625725-07A	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-07A	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-07B	Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1625725-07B	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-07B	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-08A	Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1625725-08A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1625725-08A	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-08A	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-08B	Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1625725-08B	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-08B	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-09A	Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz
L1625725-09A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1625725-09A	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-09A	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-09A1	Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz
L1625725-09A1	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1625725-09A1	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-09A1	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-09A2	Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz
L1625725-09A2	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1625725-09A2	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-09A2	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-09B	Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1625725-09B	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-09B	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-09B1	Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1625725-09B1	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-09B1	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-09B2	Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley

Container ID Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1625725-09B2 Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-09B2 Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-10A Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz
L1625725-10A Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1625725-10A Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-10A Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-10B Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1625725-10B Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-10B Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-11A Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz
L1625725-11A Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1625725-11A Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-11A Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-11B Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1625725-11B Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-11B Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-12A Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz
L1625725-12A Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1625725-12A Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-12A Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-12B Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1625725-12B Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-12B Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-13A Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz
L1625725-13A Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1625725-13A	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-13A	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-13B	Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1625725-13B	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-13B	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-14A	Amber-A.5	EMPTY	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Amanda Luiz	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Amanda Luiz
L1625725-14A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1625725-14A	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-14A	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey
L1625725-14B	Amber-A.5	DISPOSED	26-SEP-16	CUSTODY	A2-CUSTODY-NOAA1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1625725-14B	Amber-A.5	INTACT	18-AUG-16	CUSTODY	A2-CUSTODY-REFRIDGE	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625725-14B	Amber-A.5	INTACT	18-AUG-16	A2-LOGIN	A2-LOGIN	Kim L. Bailey	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Kim L. Bailey

Chain of Custody

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 8/18/16

ALPHA Job #: L1625725

Client Information
Client: Cornerstone
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845-695-0200
Fax:
Email:

Project Information
Project Name: Ringwood Mine / Landfill
Project Location: Ringwood, NJ
Project #: 140802-015
(Use Project name as Project #) ☐
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information
☐ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2-14 1,4-DIOXANE SIM-PFB	Total Bottle	Sample Specific Comments
2116[illegible] .01	FB-1-081616	08/16/16	0900	BW	JG	X		
25725 .02	OB-17-081616	08/16/16	0950	GW	JG	X		
.03	OB-18-081616	08/16/16	1010	GW	DW	X		
.04	OB-10-081616	08/16/16	1000	GW	RL	X		
.05	OB-16-081616	08/16/16	1100	GW	JG	X		
.06	OB-28-081616	08/16/16	1205	GW	DW	X		
.07	DUP-1-081616	08/16/16	1200	GW	DW	X		
.08	OB-29-081616	08/16/16	1140	GW	RL	X		
.09	OB-13-081616	08/16/16	1400	GW	RL	X		
.09	OB-13-081616-MS	08/16/16	1400	GW	RL	X		

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/17/16 0904	[signature] AAL-8	8/17/16 09:04
[signature] AAL-8	8/17/16 1800	Tom Tobin	8-17-16 1800
Tom Tobin	8-17-16 2245	[signature]	8/17/16 2245
[signature]	8/18/16 0235	Al Williams	8-18-16 02:35
Al Williams	8-18-16 03:35	[signature]	8/18/16 03:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page: 2 of 2

Date Rec'd in Lab: 8/18/16

ALPHA Job #: L1625725

Client Information

Client: Cornerstone
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845-695-0200
Fax:
Email:

Project Information

Project Name: Ringwood Mine / Landfill
Project Location: Ringwood, NJ
Project #: 140802J-015
(Use Project name as Project #) ☐
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time

Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

A2-14-DIOXANESIM-PPB

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2-14-DIOXANESIM-PPB	Sample Specific Comments
25725.09	OB-13-081616-MSD	08/16/16	1400	GW	RL	X	
.10	OB-14A-081616	08/16/16	1430	GW	JG	X	
.11	OB-14B-081616	08/16/16	1435	GW	DW	X	
.12	OB-24-081616	08/16/16	1540	GW	JG	X	
.13	RW-16-081616	08/16/16	1545	GW	DW	X	
.14	OB-03-081616	08/16/16	1610	GW	RL	X	

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	A
Preservative	A

Relinquished By:	Date/Time	Received By:	Date/Time
	8/17/16 09:04		8/17/16 09:04
	8/17/16 1800	Tom Tokin	8-17-16 1800
Tom Tokin	8-17-16 2245		8/18/16 2245
	8/18/16 0235	AE Williams	8/18/16 02:35
AE Williams	8/18/16 03:35		8/18/16 03:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONSTITUTIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Organics

GCMS Extractables 1,4-Dioxane By SIM

Initial Calibration

Response Factor Report BNA6

Method Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Method File : 14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016
Response Via : Initial Calibration

Calibration Files
10 =F608101604.D 50 =F608101605.D 100 =F608101606.D 500 =F608101607.D 1000=F608101608.D
5000=F608101609.D 1e4 =F608101610.D

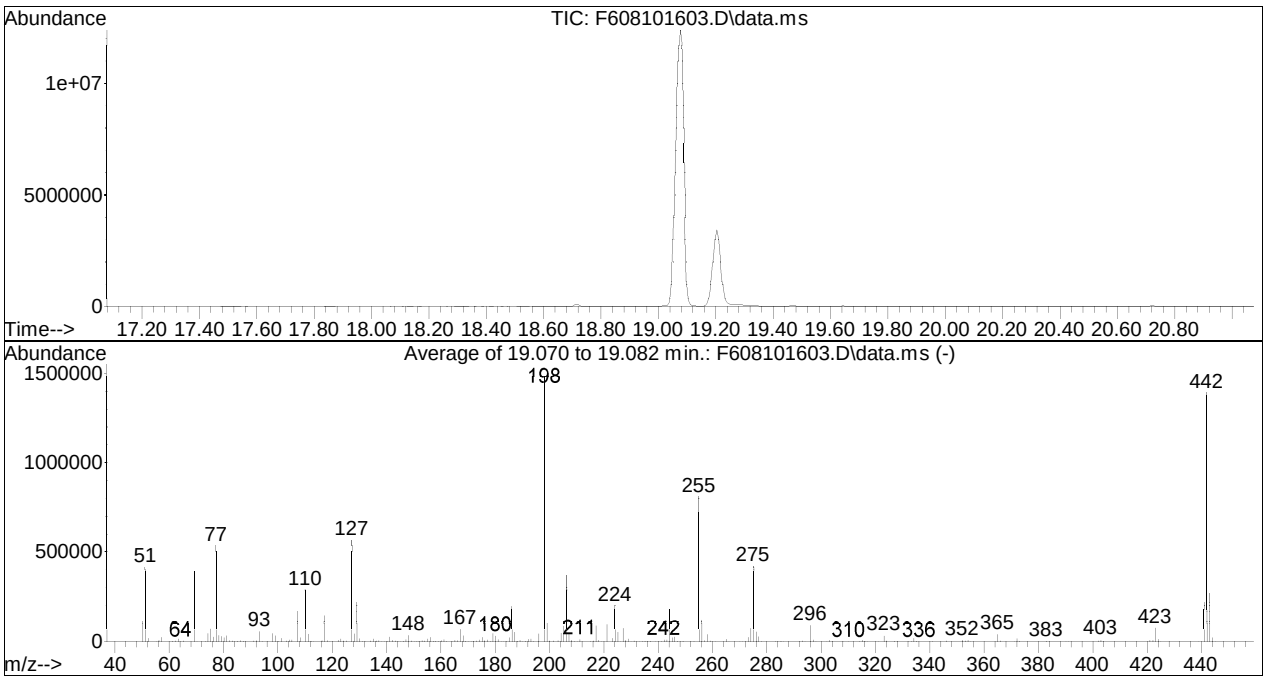
	Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)	1,4-Dioxane-d8 (IS)	ISTD								
2)	1,4-dioxane	1.556	1.402	1.394	1.386	1.470	1.417	1.405	1.433	4.24
3) I	1,4-Dichlorobenzene-d4	ISTD								
4) s	1,4-dioxane-d8	0.428	0.444	0.423	0.441	0.417	0.442	0.435	0.433	2.41

(#) = Out of Range

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101603.D
Acq On : 10 Aug 2016 1:25 pm
Operator : BNA6:SF
Sample : T608101601
Misc : WG921943,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



AutoFind: Scans 1879, 1880, 1881; Background Corrected with Scan 1856

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.1	414533	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2219	PASS
127	198	10	80	38.3	565504	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1476097	PASS
199	198	5	9	6.8	100408	PASS
275	198	10	60	28.4	419669	PASS
365	198	1	100	2.8	40728	PASS
441	442	0.01	24	15.6	217472	PASS
442	198	50	100	94.3	1392469	PASS
443	442	15	24	19.4	270059	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101604.D
Acq On : 10 Aug 2016 2:22 pm
Operator : BNA6:SF
Sample : I608101601
Misc : WG921943,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 12:53:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	85056	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.503	152	198789	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	85056	494.380	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 98.88%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.980	88	2647	10.858	ng/mL	98

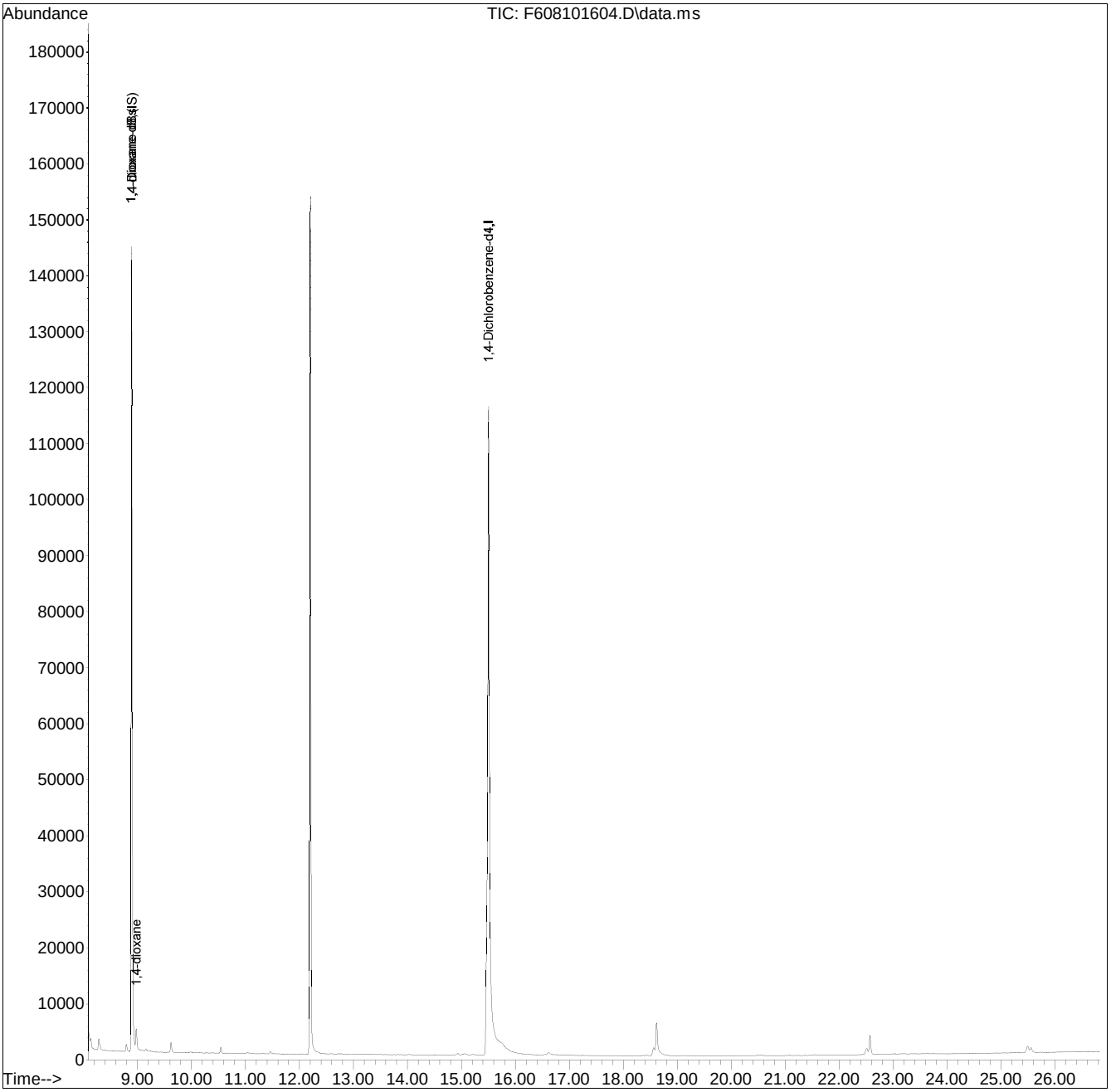
(#) = qualifier out of range (m) = manual integration (+) = signals summed

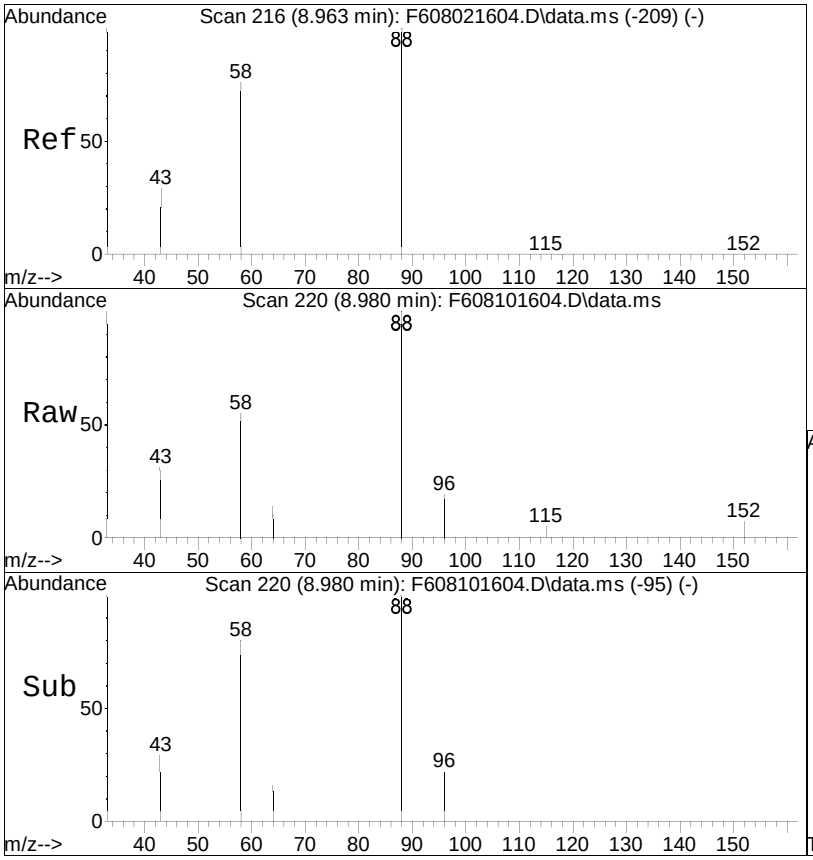
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101604.D
Acq On : 10 Aug 2016 2:22 pm
Operator : BNA6:SF
Sample : I608101601
Misc : WG921943,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 12:53:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

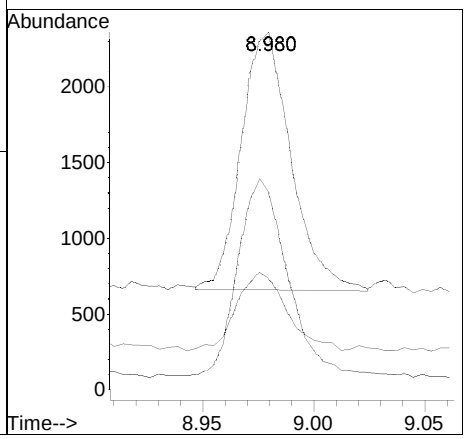




#2
1,4-dioxane
Concen: 10.86 ng/mL
RT: 8.980 min Scan# 220
Delta R.T. 0.008 min
Lab File: F608101604.D
Acq: 10 Aug 2016 2:22 pm

Tgt Ion: 88 Resp: 2647

Ion	Ratio	Lower	Upper
88	100		
58	76.2	62.1	93.1
43	31.4	24.4	36.6



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101604.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 2:22 pm	Instrument	: BNA6
Sample	: I608101601	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101605.D
Acq On : 10 Aug 2016 3:07 pm
Operator : BNA6:SF
Sample : I608101602
Misc : WG921943,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 11 12:53:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	88228	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	198548	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	88228	513.440	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.69%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.984	88	12373	48.930	ng/mL	100

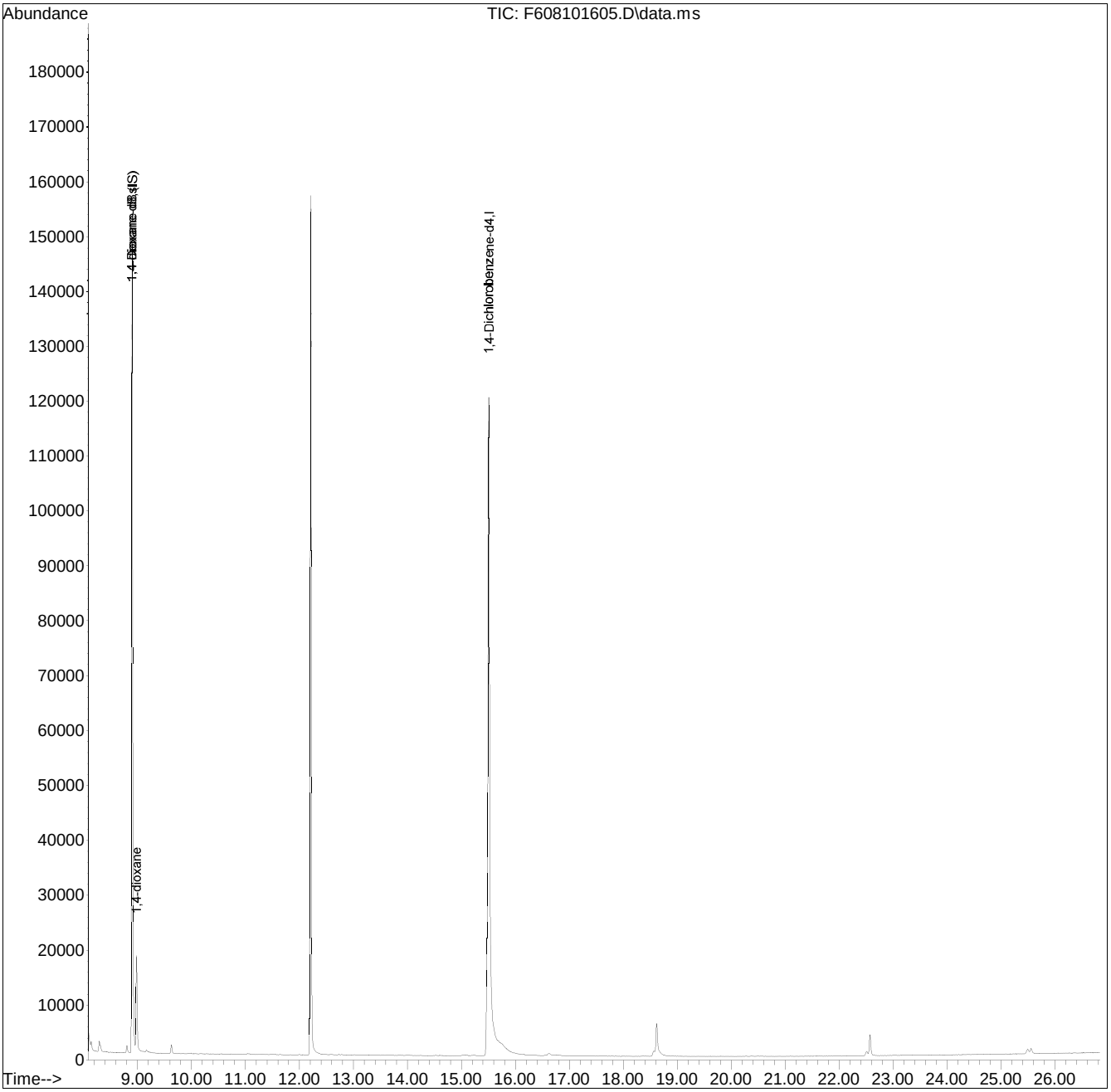
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101605.D
Acq On : 10 Aug 2016 3:07 pm
Operator : BNA6:SF
Sample : I608101602
Misc : WG921943,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 11 12:53:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101605.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 3:07 pm	Instrument	: BNA6
Sample	: I608101602	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101606.D
Acq On : 10 Aug 2016 3:51 pm
Operator : BNA6:SF
Sample : I608101603
Misc : WG921943,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 11 12:53:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	86899	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	205668	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	86899	488.199	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 97.64%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.980	88	24230	97.284	ng/mL	99

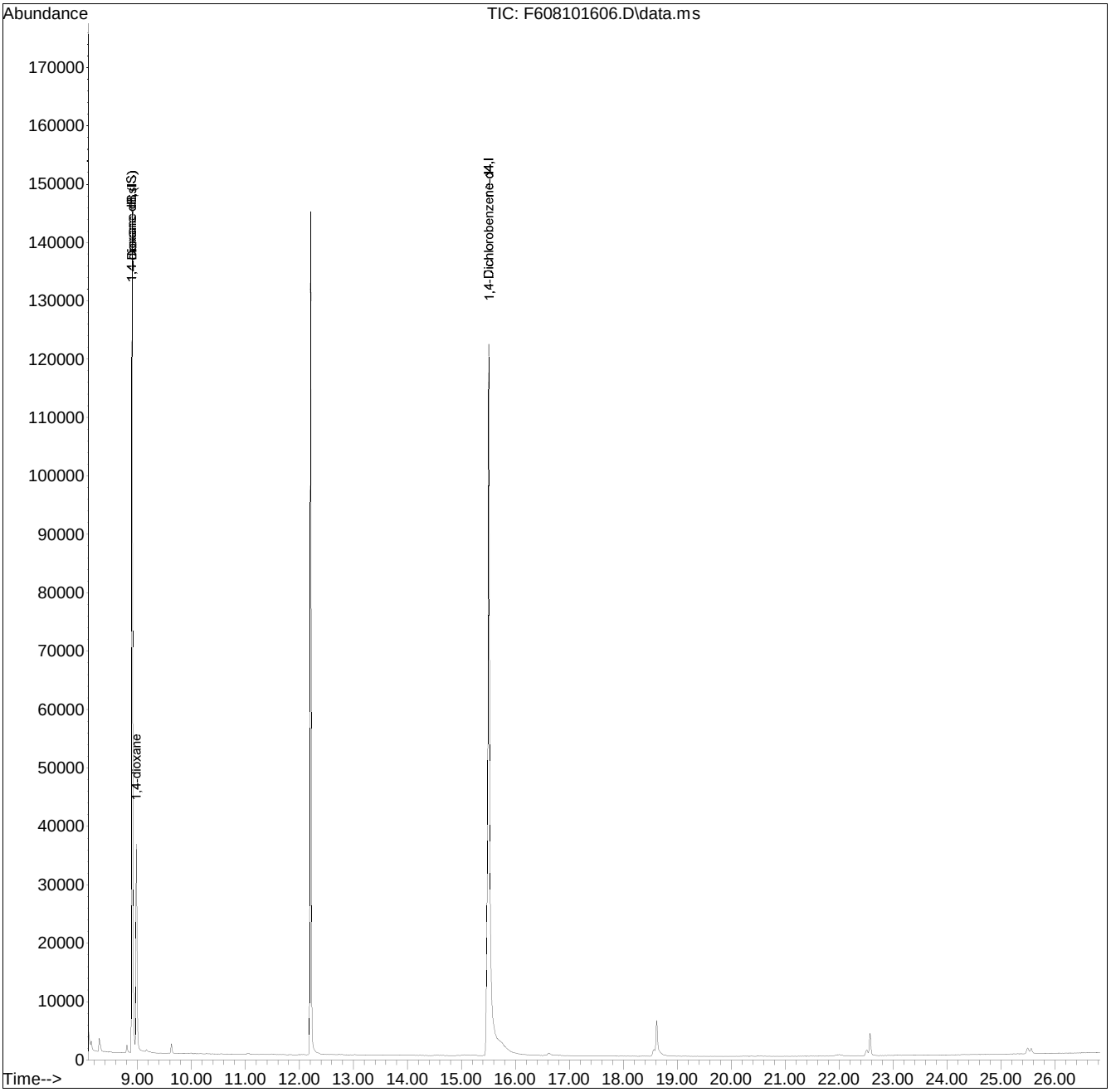
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101606.D
Acq On : 10 Aug 2016 3:51 pm
Operator : BNA6:SF
Sample : I608101603
Misc : WG921943,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 11 12:53:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101606.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 3:51 pm	Instrument	: BNA6
Sample	: I608101603	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101607.D
Acq On : 10 Aug 2016 4:36 pm
Operator : BNA6:SF
Sample : I608101604
Misc : WG921943,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 11 12:53:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

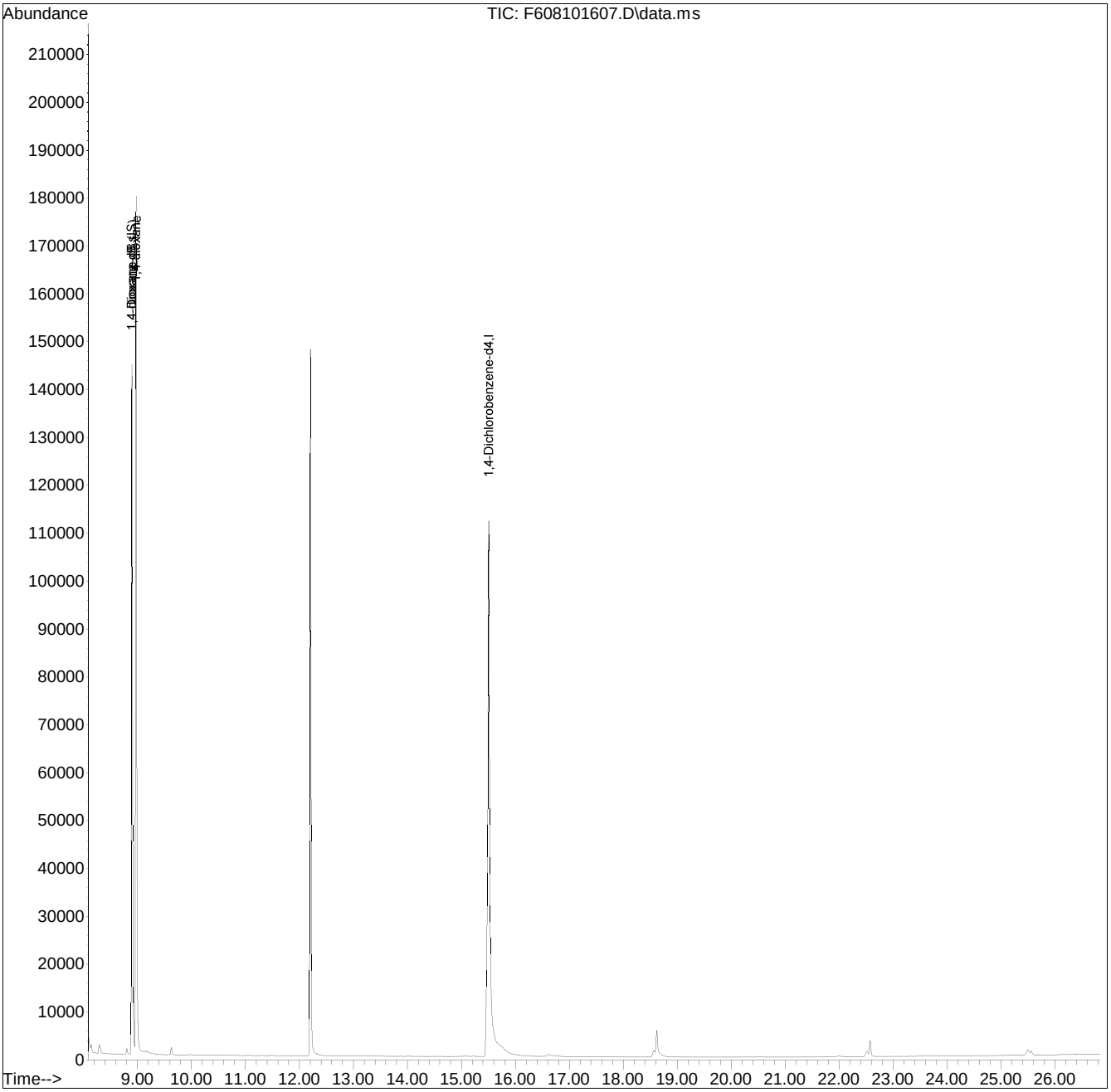
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	86585	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	196925	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	86794M4	509.257	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 101.85%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.972	88	120017M4	483.619	ng/mL	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101607.D
Acq On : 10 Aug 2016 4:36 pm
Operator : BNA6:SF
Sample : I608101604
Misc : WG921943,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 11 12:53:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

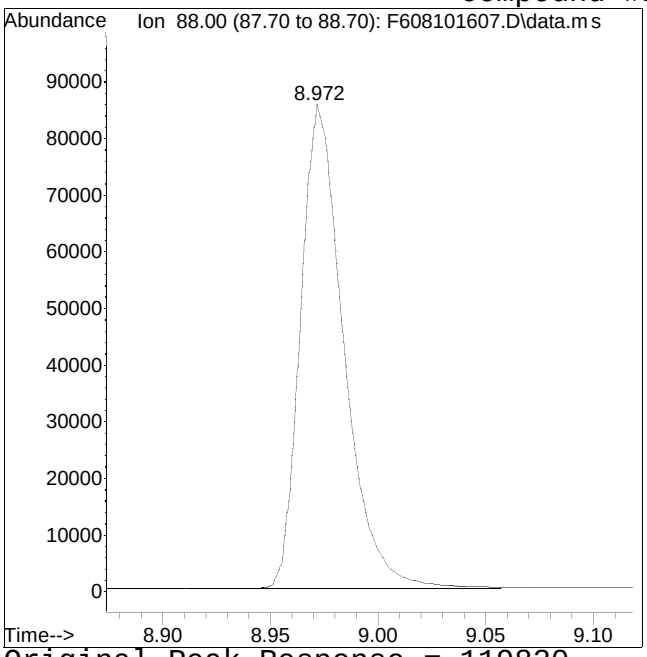


Manual Integration/Negative Proof Report

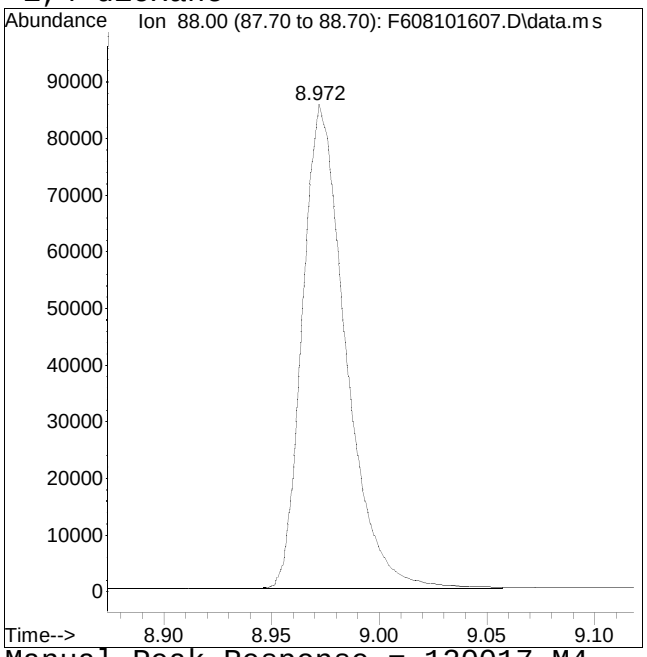
Data Path : O:\Organics\DATA\BNA6\2016\
Data File : F608101607.D
Date Inj'd : 8/10/2016 4:36 pm
Sample : I608101604

QMethod : 14DIOX0810BNA6.M
Operator : BNA6:SF
Instrument : BNA6
Quant Date : 8/11/2016 12:53 pm

Compound #2: 1,4-dioxane



Original Peak Response = 119820



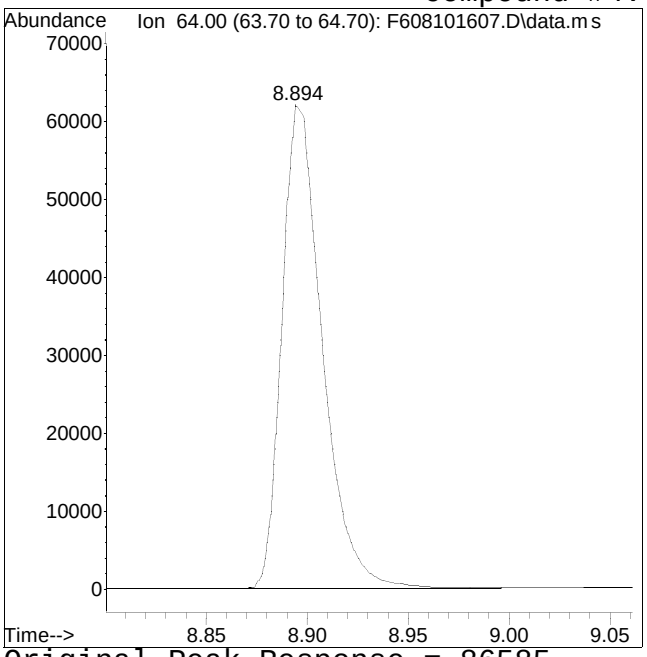
Manual Peak Response = 120017 M4

M4 = Poor automated baseline construction.

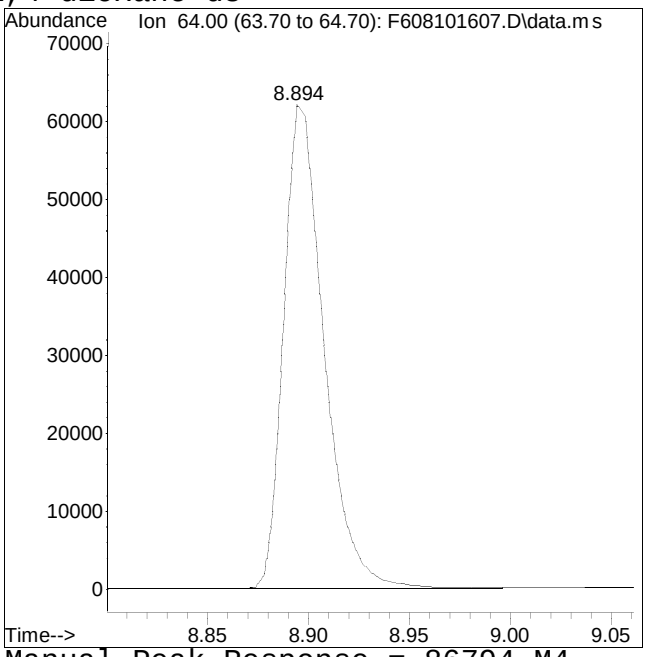
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101607.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 4:36 pm Instrument : BNA6
Sample : I608101604 Quant Date : 8/11/2016 12:53 pm

Compound #4: 1,4-dioxane-d8



Original Peak Response = 86585



Manual Peak Response = 86794 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101608.D
Acq On : 10 Aug 2016 5:21 pm
Operator : BNA6:SF
Sample : I608101605
Misc : WG921943,MSAK15
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 11 12:53:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	83650	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	200518	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	83650	482.016	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 96.40%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.971	88	245983	1025.987	ng/mL	99

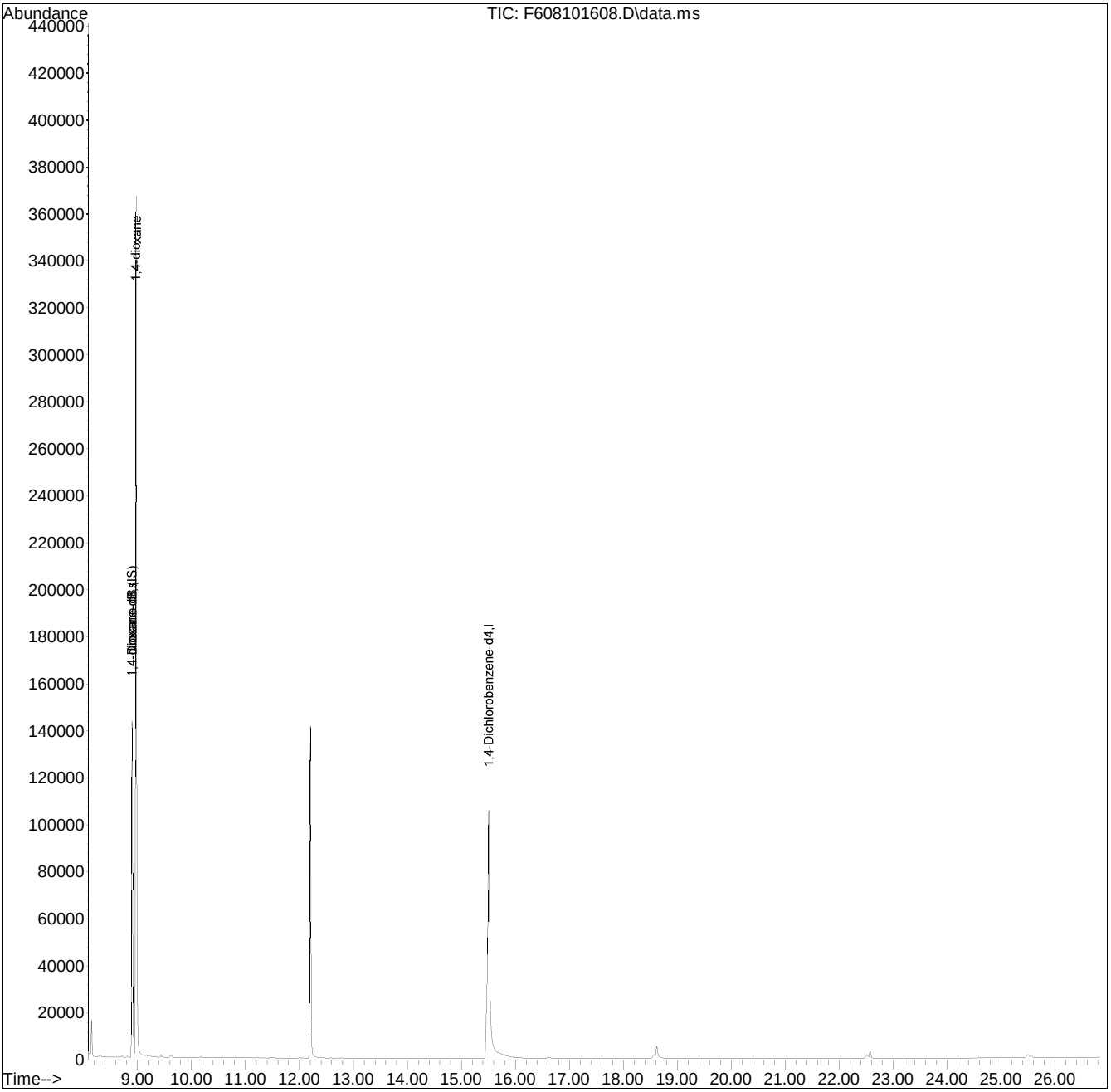
(#) = qualifier out of range (m) = manual integration (+) = signals summed

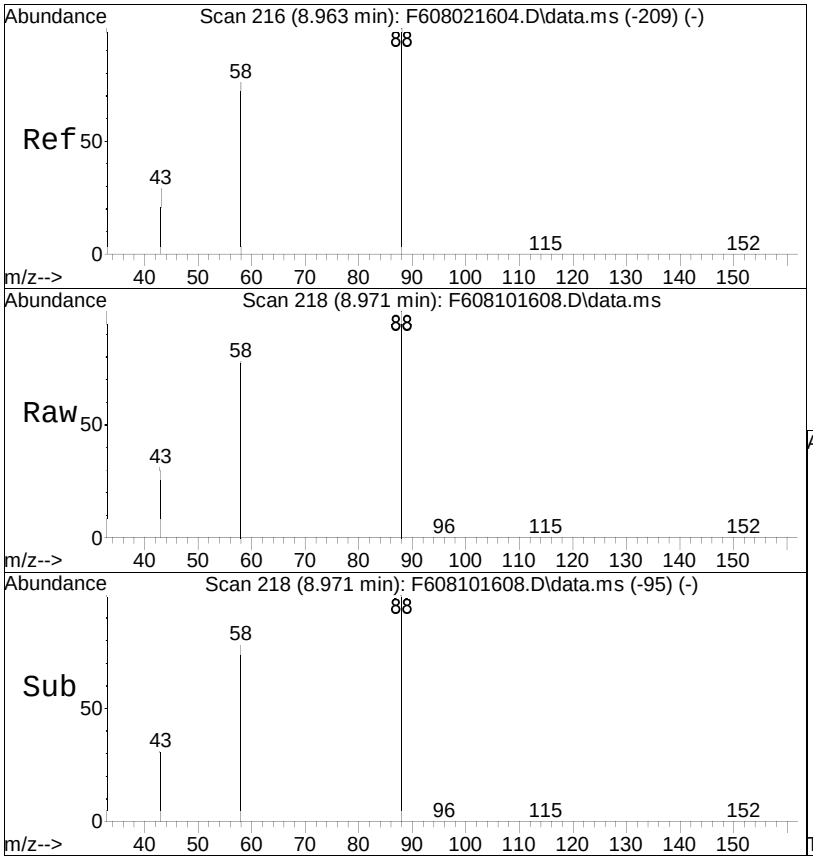
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101608.D
Acq On : 10 Aug 2016 5:21 pm
Operator : BNA6:SF
Sample : I608101605
Misc : WG921943,MSAK15
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 11 12:53:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

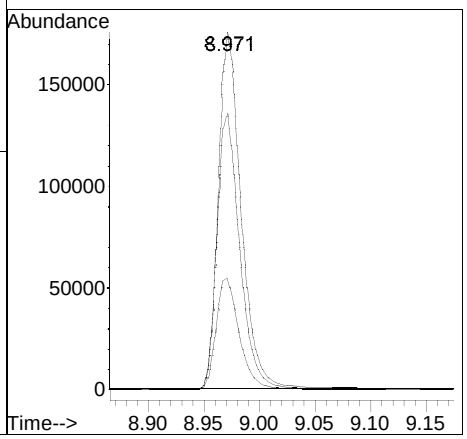




#2
1,4-dioxane
Concen: 1025.99 ng/mL
RT: 8.971 min Scan# 218
Delta R.T. 0.000 min
Lab File: F608101608.D
Acq: 10 Aug 2016 5:21 pm

Tgt Ion: 88 Resp: 245983

Ion	Ratio	Lower	Upper
88	100		
58	78.3	62.1	93.1
43	31.7	24.4	36.6



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101608.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 5:21 pm	Instrument	: BNA6
Sample	: I608101605	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101609.D
Acq On : 10 Aug 2016 6:06 pm
Operator : BNA6:SF
Sample : I608101606
Misc : WG921943,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 11 12:53:40 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	84632M4	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	191584	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	84626M4	510.379	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.08%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.963	88	1199636	4945.586	ng/mL	99

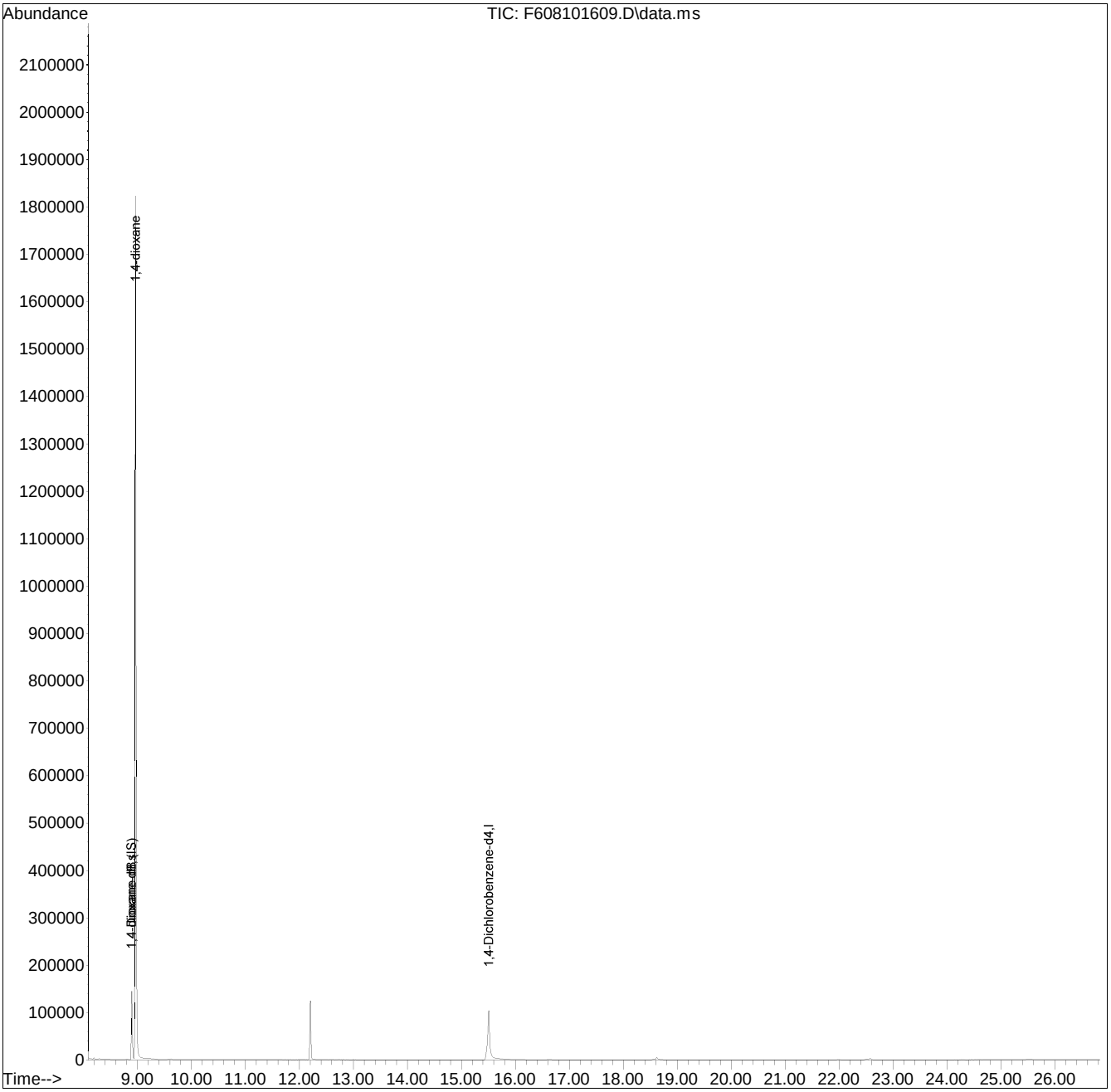
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101609.D
Acq On : 10 Aug 2016 6:06 pm
Operator : BNA6:SF
Sample : I608101606
Misc : WG921943,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 11 12:53:40 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

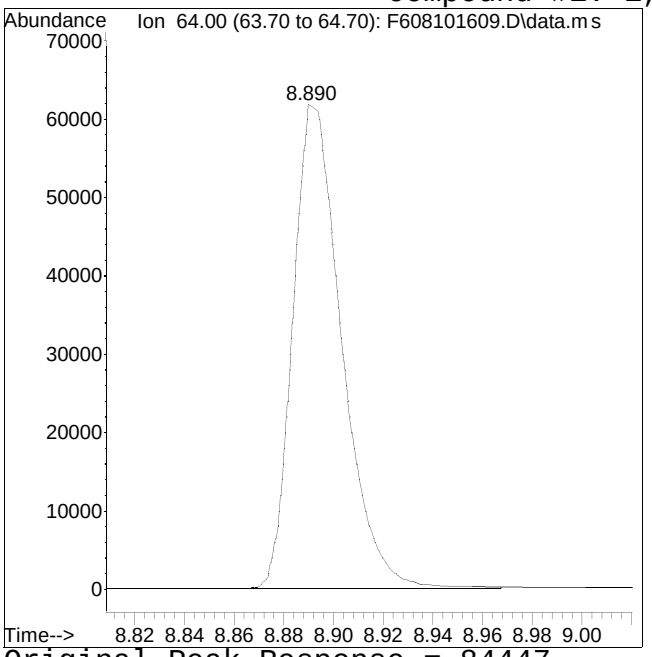
Sub List : Default - All compounds listed



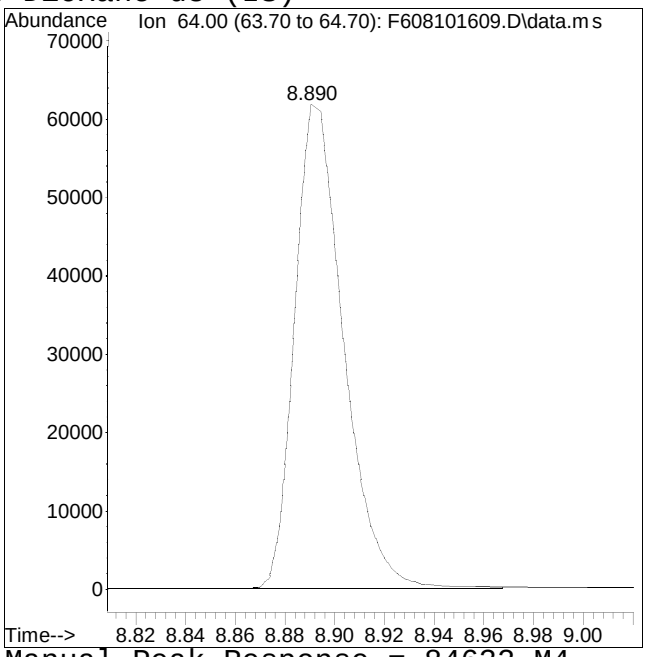
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101609.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 6:06 pm Instrument : BNA6
Sample : I608101606 Quant Date : 8/11/2016 12:53 pm

Compound #1: 1,4-Dioxane-d8 (IS)



Original Peak Response = 84447



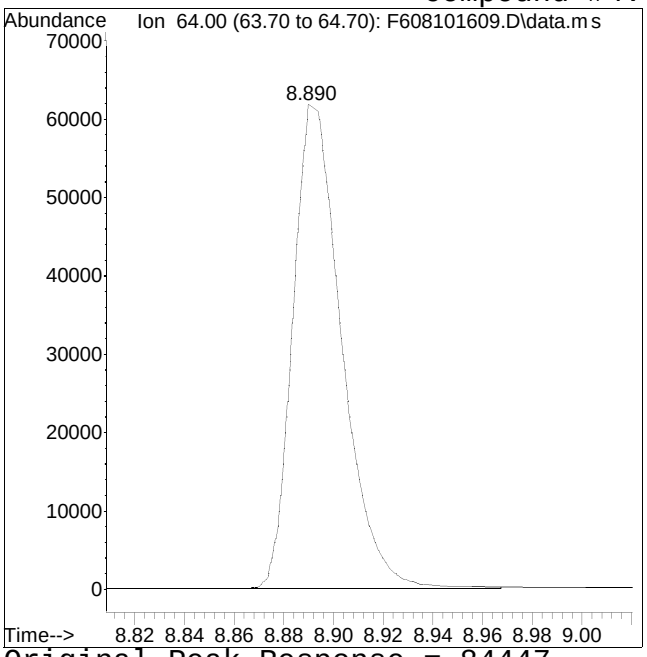
Manual Peak Response = 84632 M4

M4 = Poor automated baseline construction.

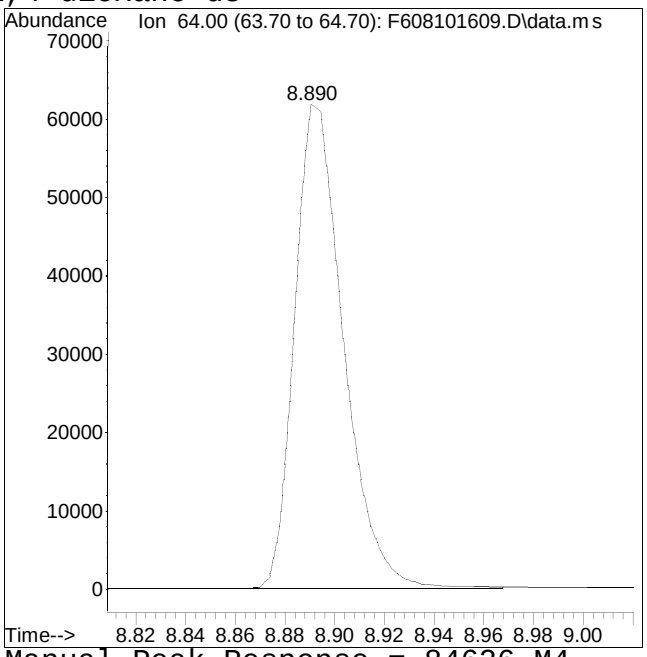
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101609.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 6:06 pm Instrument : BNA6
Sample : I608101606 Quant Date : 8/11/2016 12:53 pm

Compound #4: 1,4-dioxane-d8



Original Peak Response = 84447



Manual Peak Response = 84626 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101610.D
Acq On : 10 Aug 2016 6:51 pm
Operator : BNA6:SF
Sample : I608101607
Misc : WG921943,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 11 12:53:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.882	64	82789	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.503	152	190429	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.882	64	82789	502.329	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 100.47%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	2326389	9804.210	ng/mL	99

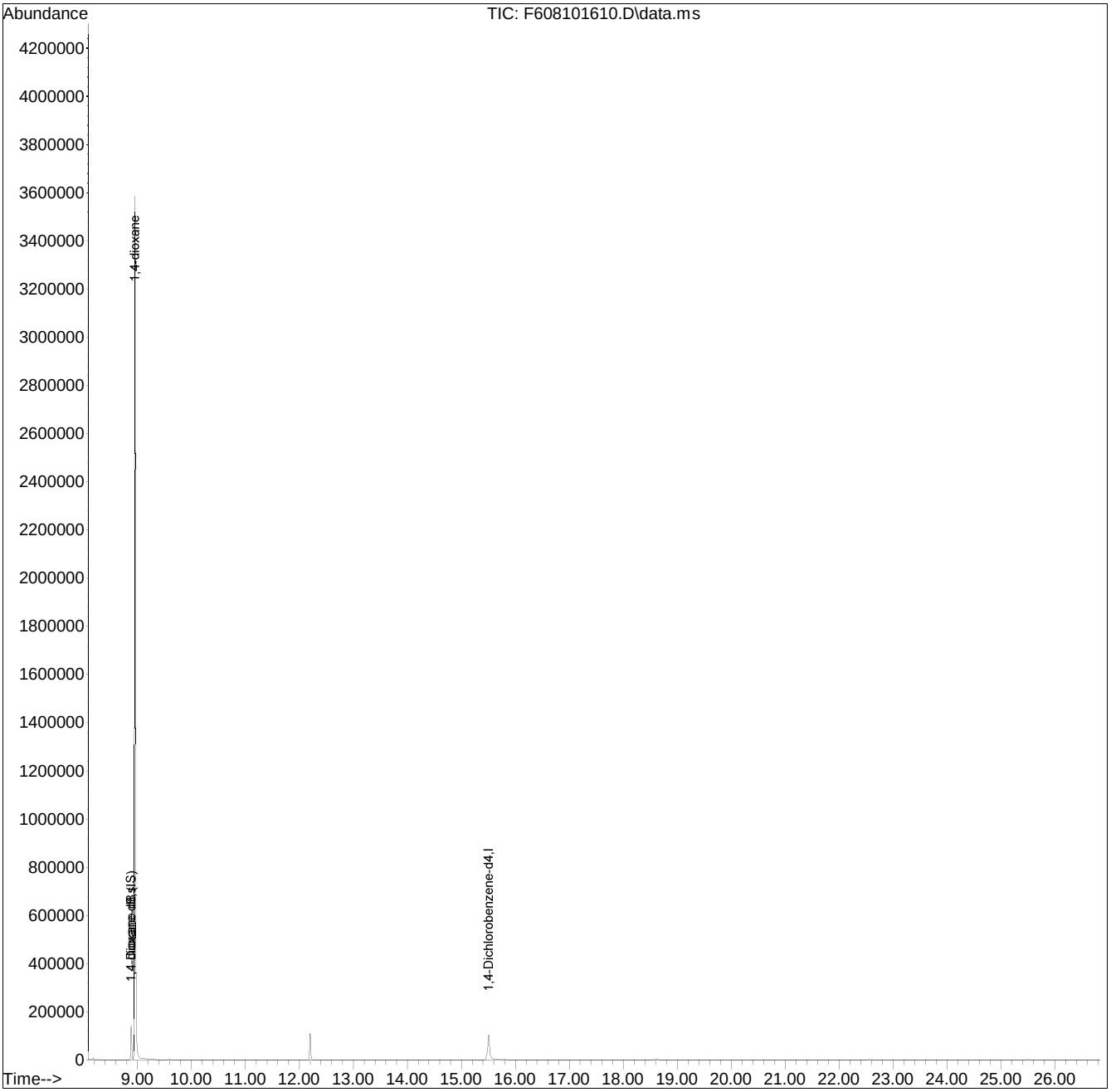
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101610.D
Acq On : 10 Aug 2016 6:51 pm
Operator : BNA6:SF
Sample : I608101607
Misc : WG921943,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 11 12:53:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101610.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 6:51 pm	Instrument	: BNA6
Sample	: I608101607	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	98	0.00
2	1,4-dioxane	1.433	1.360	5.1	91	0.00
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
4 s	1,4-dioxane-d8	0.433	0.442	-2.1	97	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	82343	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	186413	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	82343	510.386	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.08%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.968	88	223932	948.839	ng/mL	99

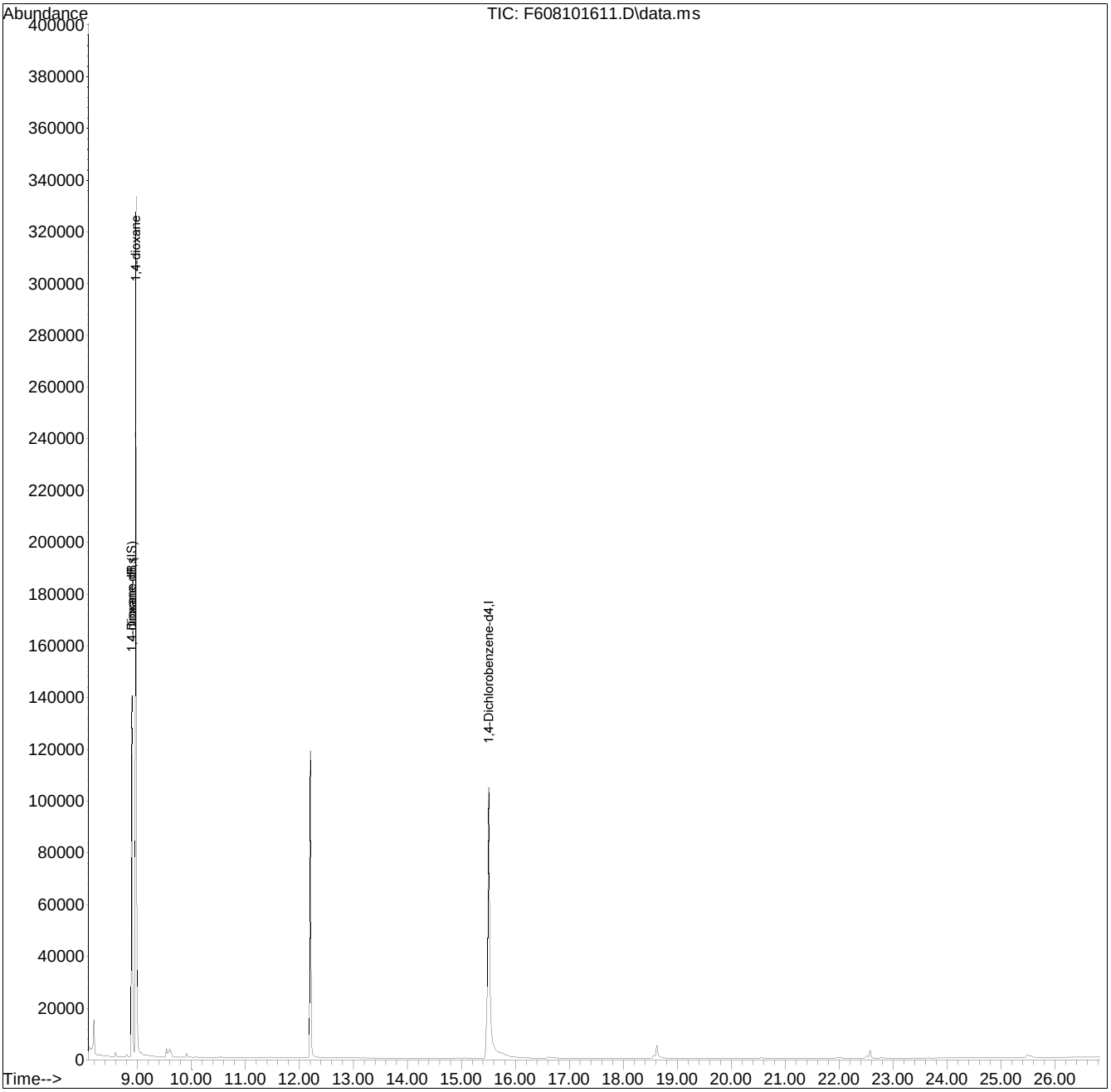
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101611.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 7:36 pm	Instrument	: BNA6
Sample	: CQ608101601	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 28 2016, 04:28 pm

Work Group: WG924185 for Department: 2 Organic Preparation

Created: 19-AUG-16 Due: Operator: AL

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1625725-01	FB-1-081616	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0823	0826	S0	Amber-A.5
L1625725-02	OB-17-081616	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0823	0826	S0	Amber-A.5
L1625725-03	OB-18-081616	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0823	0826	S0	Amber-A.5
L1625725-04	OB-10-081616	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0823	0826	S0	Amber-A.5
L1625725-05	OB-16-081616	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0823	0826	S0	Amber-A.5
L1625725-06	OB-28-081616	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0823	0826	S0	Amber-A.5
L1625725-07	DUP-1-081616	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0823	0826	S0	Amber-A.5
L1625725-08	OB-29-081616	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0823	0826	S0	Amber-A.5
L1625725-09	OB-13-081616	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0823	0826	S0	Amber-A.5
L1625725-10	OB-14A-081616	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0823	0826	S0	Amber-A.5
L1625725-11	OB-14B-081616	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0823	0826	S0	Amber-A.5
L1625725-12	OB-24-081616	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0823	0826	S0	Amber-A.5
L1625725-13	RW-16-081616	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0823	0826	S0	Amber-A.5
L1625725-14	OB-03-081616	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0823	0826	S0	Amber-A.5
WG924185-1	Laboratory Method Bl	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG924185-2	Laboratory Control S	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG924185-3	LCS Duplicate	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG924185-4	Matrix Spike	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG924185-5	Matrix Spike Duplica	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				

Comments:

WG924185-3	WG924185-2
WG924185-4	L1625725-09
WG924185-5	L1625725-09

Sequence Logs

Analysis log File

SF 081116

Total Files Reported in Log : 11
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Aug\Aug10\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F608101601.D	14DIOXDFTPPB	TUNE	MSAK38	8/10/2016 11:28 am
2	F608101602.D	14DIOXBNA6.M	CCV	MSAK15	8/10/2016 12:25 pm
3	F608101603.D	14DIOXDFTPPB	T608101601	WG921943,MSAK38	8/10/2016 1:25 pm
4	F608101604.D	14DIOXBNA6.M	I608101601	WG921943,MSAJ77	8/10/2016 2:22 pm
5	F608101605.D	14DIOXBNA6.M	I608101602	WG921943,MSAJ78	8/10/2016 3:07 pm
6	F608101606.D	14DIOXBNA6.M	I608101603	WG921943,MSAJ79	8/10/2016 3:51 pm
7	F608101607.D	14DIOXBNA6.M	I608101604	WG921943,MSAJ80	8/10/2016 4:36 pm
8	F608101608.D	14DIOXBNA6.M	I608101605	WG921943,MSAK15	8/10/2016 5:21 pm
9	F608101609.D	14DIOXBNA6.M	I608101606	WG921943,MSAJ82	8/10/2016 6:06 pm
10	F608101610.D	14DIOXBNA6.M	I608101607	WG921943,MSAJ76	8/10/2016 6:51 pm
11	F608101611.D	14DIOXBNA6.M	CQ608101601	WG921943,MSAJ49	8/10/2016 7:36 pm

Analysis log File

Total Files Reported in Log : 26
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Aug\Aug19\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F608191601.D	14DIOXDFTPPB	TUNE	MSAK38	8/19/2016 10:10 am
2	F608191602.D	14DIOXBNA6.M	CCV	MSAK15	8/19/2016 11:07 am
3	F608191603.D	14DIOXDFTPPB	WG924327-1	WG924327,MSAK38	8/19/2016 3:33 pm
4	F608191604.D	14DIOXBNA6.M	WG924327-3	WG924327,MSAK15	8/19/2016 4:30 pm
5	F608191605.D	14DIOXBNA6.M	WG924185-1	WG924327,WG924185..	8/19/2016 5:15 pm
6	F608191606.D	14DIOXBNA6.M	WG924185-2	WG924327,WG924185..	8/19/2016 6:00 pm
7	F608191607.D	14DIOXBNA6.M	WG924185-3	WG924327,WG924185..	8/19/2016 6:45 pm
8	F608191608.D	14DIOXBNA6.M	L1625685-01	WG924327,WG924184..	8/19/2016 7:30 pm
9	F608191609.D	14DIOXBNA6.M	L1625725-01	WG924327,WG924185..	8/19/2016 8:14 pm
10	F608191610.D	14DIOXBNA6.M	L1625725-02	WG924327,WG924185..	8/19/2016 8:59 pm
11	F608191611.D	14DIOXBNA6.M	L1625725-03	WG924327,WG924185..	8/19/2016 9:43 pm
12	F608191612.D	14DIOXBNA6.M	L1625725-04	WG924327,WG924185..	8/19/2016 10:27 pm
13	F608191613.D	14DIOXBNA6.M	L1625725-05	WG924327,WG924185..	8/19/2016 11:11 pm
14	F608191614.D	14DIOXBNA6.M	L1625725-06	WG924327,WG924185..	8/19/2016 11:55 pm
15	F608191615.D	14DIOXBNA6.M	L1625725-07	WG924327,WG924185..	8/20/2016 12:39 am
16	F608191616.D	14DIOXBNA6.M	L1625725-08	WG924327,WG924185..	8/20/2016 1:23 am
17	F608191617.D	14DIOXDFTPPB	WG924327-4	WG924327,MSAK38	8/20/2016 2:03 am
18	F608191618.D	14DIOXBNA6.M	WG924327-6	WG924327,MSAK15	8/20/2016 2:59 am
19	F608191619.D	14DIOXBNA6.M	L1625725-09	WG924327,WG924185..	8/20/2016 3:42 am
20	F608191620.D	14DIOXBNA6.M	WG924185-4	WG924327,WG924185..	8/20/2016 4:26 am
21	F608191621.D	14DIOXBNA6.M	WG924185-5	WG924327,WG924185..	8/20/2016 5:09 am
22	F608191622.D	14DIOXBNA6.M	L1625725-10	WG924327,WG924185..	8/20/2016 5:53 am
23	F608191623.D	14DIOXBNA6.M	L1625725-11	WG924327,WG924185..	8/20/2016 6:36 am
24	F608191624.D	14DIOXBNA6.M	L1625725-12	WG924327,WG924185..	8/20/2016 7:20 am
25	F608191625.D	14DIOXBNA6.M	L1625725-13	WG924327,WG924185..	8/20/2016 8:04 am
26	F608191626.D	14DIOXBNA6.M	L1625725-14	WG924327,WG924185..	8/20/2016 8:47 am

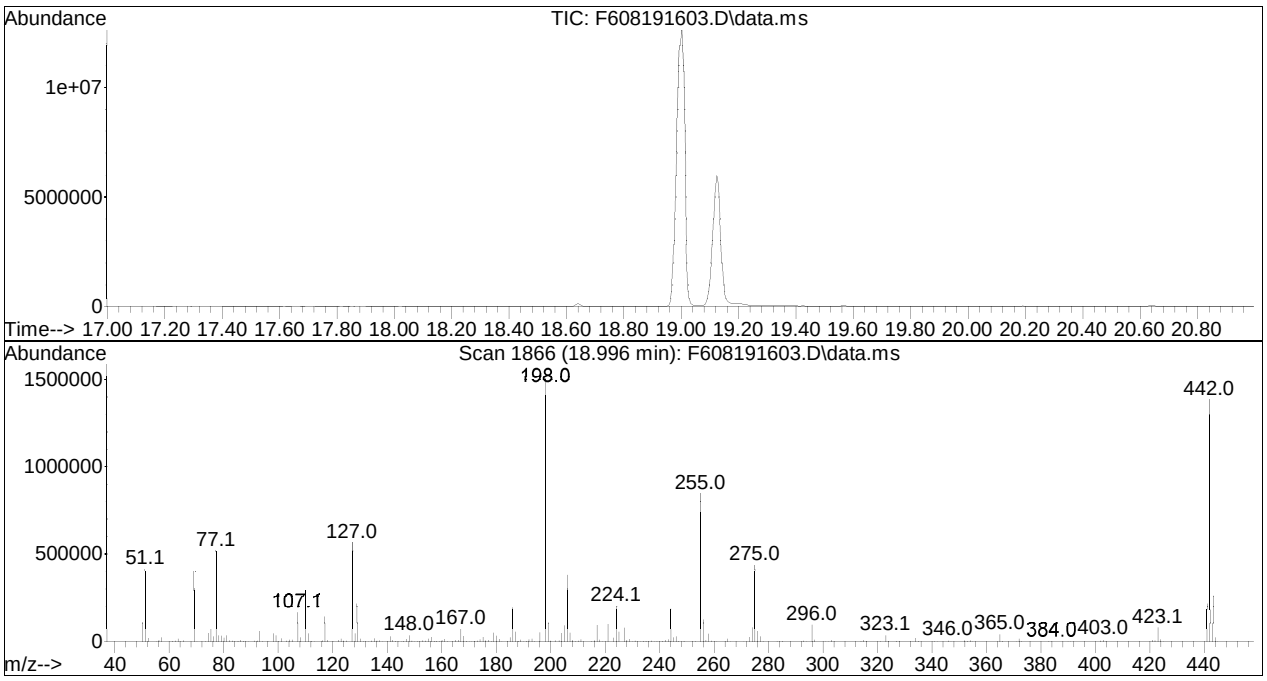
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191603.D
Acq On : 19 Aug 2016 3:33 pm
Operator : BNA6:WR
Sample : WG924327-1
Misc : WG924327,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



Spectrum Information: Scan 1866

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	27.3	412864	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	2164	PASS
127	198	10	80	37.4	565824	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1510912	PASS
199	198	5	9	7.1	106960	PASS
275	198	10	60	28.8	435584	PASS
365	198	1	100	2.6	39576	PASS
441	442	0.01	24	15.8	218112	PASS
442	198	50	100	91.6	1383424	PASS
443	442	15	24	18.9	261440	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191604.D
Acq On : 19 Aug 2016 4:30 pm
Operator : BNA6:WR
Sample : WG924327-3
Misc : WG924327,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 23 12:57:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	106	-0.07
2	1,4-dioxane	1.433	1.383	3.5	100	-0.07
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	106	-0.08
4 s	1,4-dioxane-d8	0.433	0.416	3.9	105	-0.07

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191604.D
Acq On : 19 Aug 2016 4:30 pm
Operator : BNA6:WR
Sample : WG924327-3
Misc : WG924327,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 23 12:57:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.825	64	88906	500.000	ng/mL	-0.07
3) 1,4-Dichlorobenzene-d4	15.426	152	213494	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.825	64	88906	481.165	ng/mL	-0.07
Spiked Amount 500.000	Range 15 - 115		Recovery = 96.23%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.898	88	245862	964.858	ng/mL	99

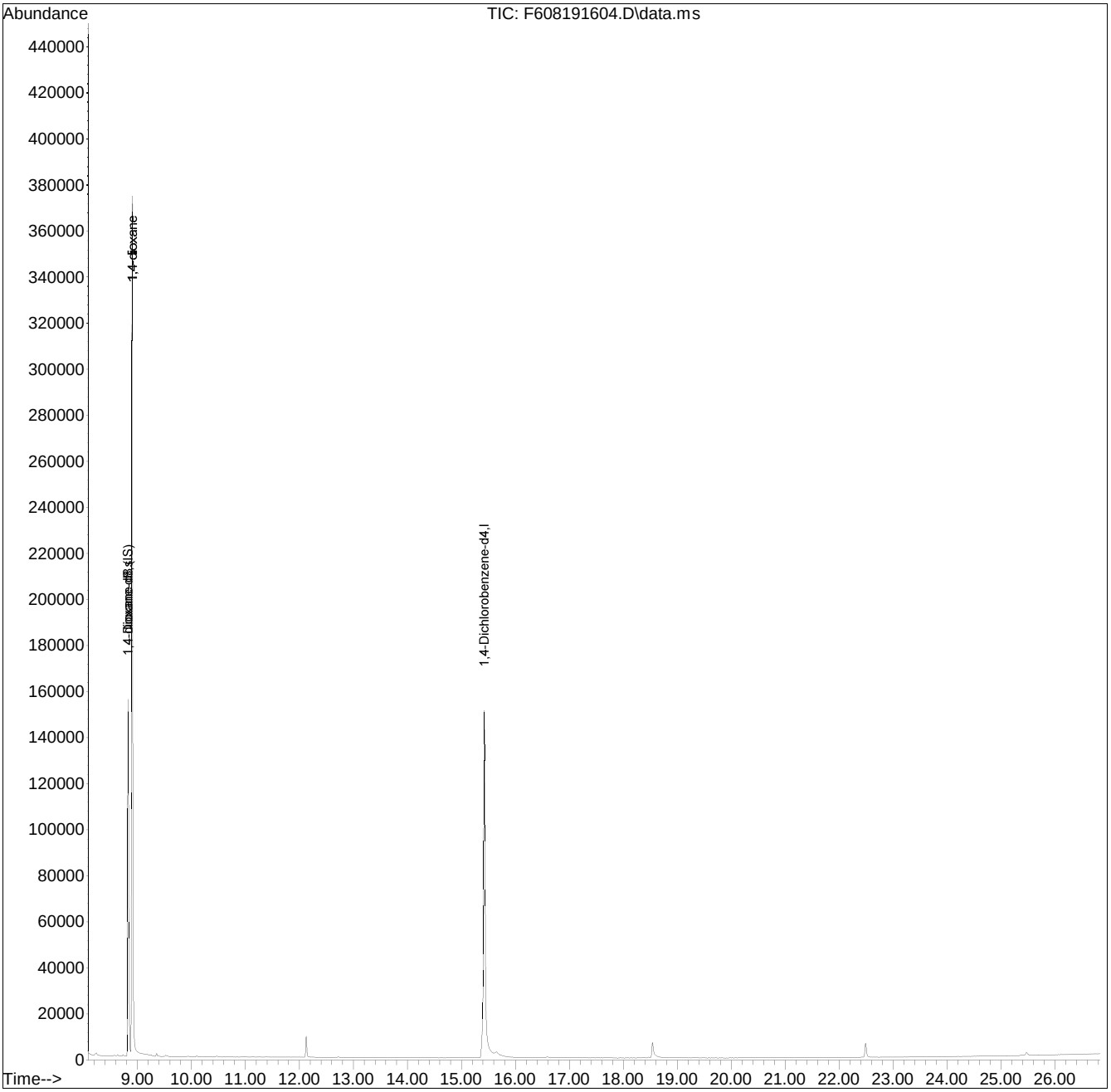
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191604.D
Acq On : 19 Aug 2016 4:30 pm
Operator : BNA6:WR
Sample : WG924327-3
Misc : WG924327,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 23 12:57:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191609.D
Acq On : 19 Aug 2016 8:14 pm
Operator : BNA6:WR
Sample : L1625725-01
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 23 13:40:05 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

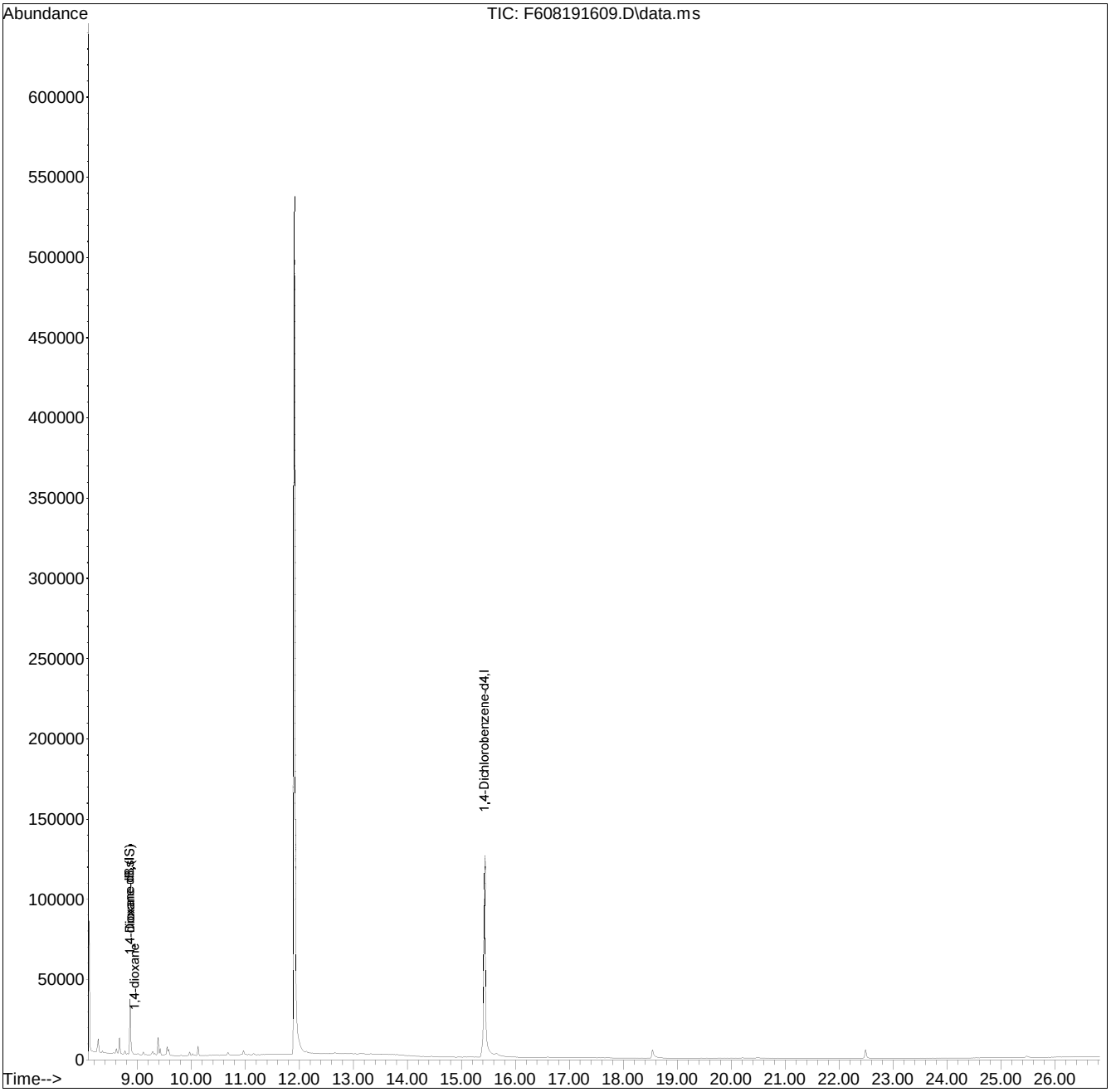
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.862	64	20546	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	181312	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.862	64	20546	130.933	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 26.19%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.943	88	143M4	2.428	ng/mL	

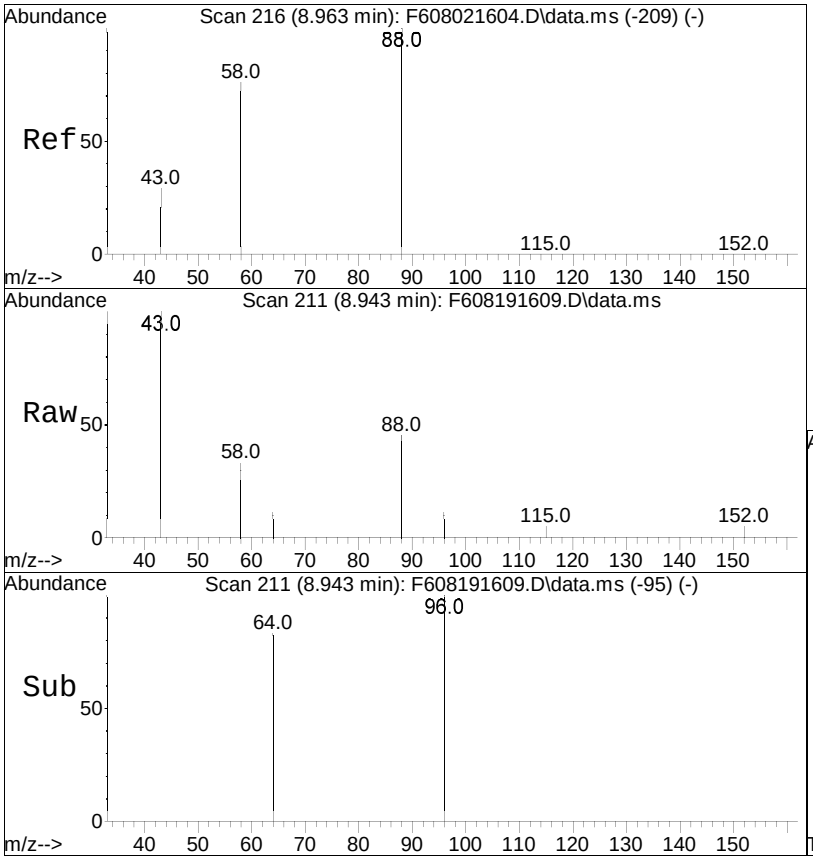
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191609.D
Acq On : 19 Aug 2016 8:14 pm
Operator : BNA6:WR
Sample : L1625725-01
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 23 13:40:05 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

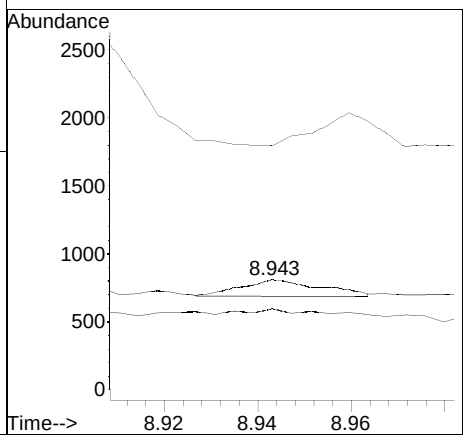




#2
1,4-dioxane
Concen: 2.43 ng/mL M4
RT: 8.943 min Scan# 211
Delta R.T. -0.028 min
Lab File: F608191609.D
Acq: 19 Aug 2016 8:14 pm

Tgt Ion: 88 Resp: 143

Ion	Ratio	Lower	Upper
88	100		
58	6.3	62.1	93.1#
43	0.0	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191610.D
Acq On : 19 Aug 2016 8:59 pm
Operator : BNA6:WR
Sample : L1625725-02
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 23 12:57:44 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.858	64	19699	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	179912	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.858	64	19699	126.512	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.30%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.931	88	90779	1607.845	ng/mL	100

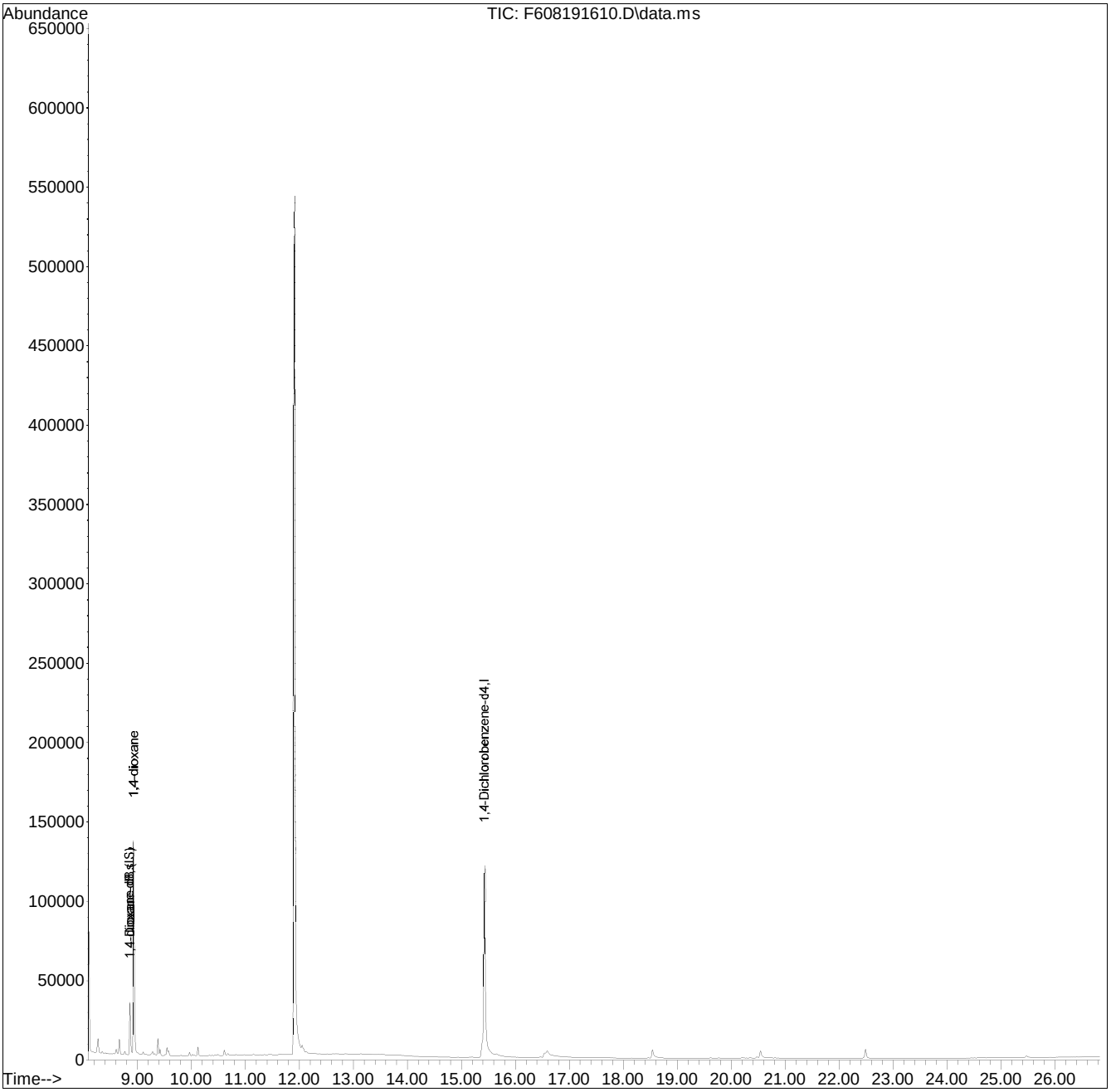
(#) = qualifier out of range (m) = manual integration (+) = signals summed

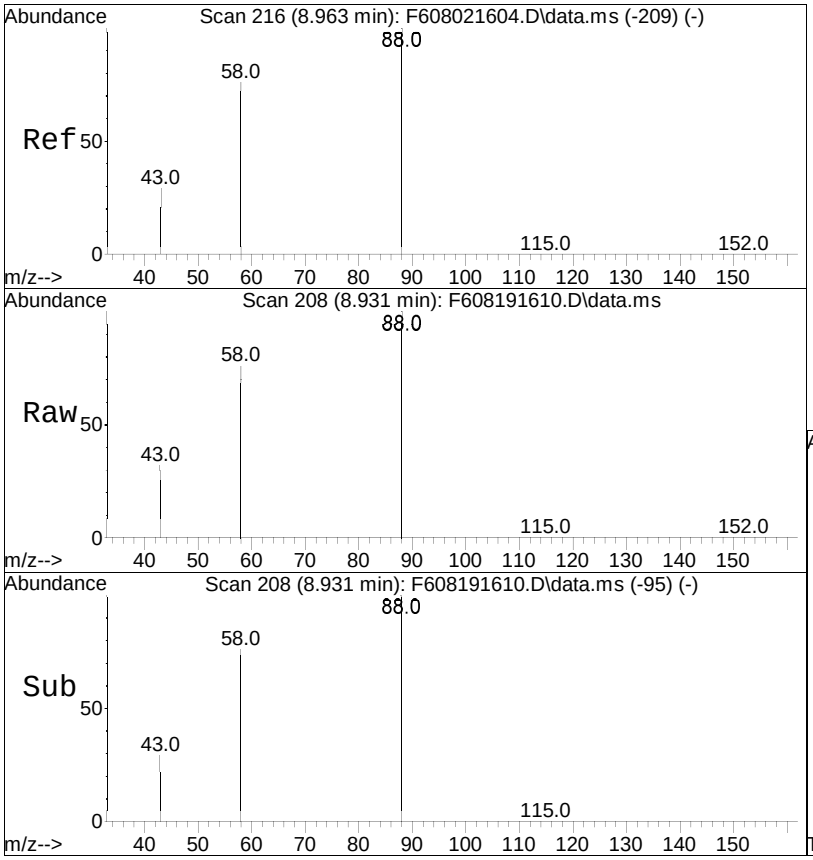
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191610.D
Acq On : 19 Aug 2016 8:59 pm
Operator : BNA6:WR
Sample : L1625725-02
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 23 12:57:44 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

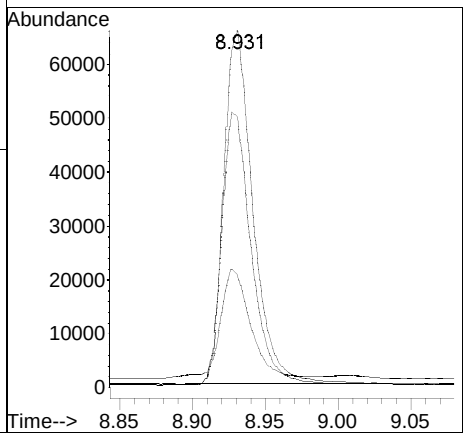




#2
1,4-dioxane
Concen: 1607.84 ng/mL
RT: 8.931 min Scan# 208
Delta R.T. -0.040 min
Lab File: F608191610.D
Acq: 19 Aug 2016 8:59 pm

Tgt Ion: 88 Resp: 90779

Ion	Ratio	Lower	Upper
88	100		
58	77.6	62.1	93.1
43	30.2	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191611.D
Acq On : 19 Aug 2016 9:43 pm
Operator : BNA6:WR
Sample : L1625725-03
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 23 13:41:11 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

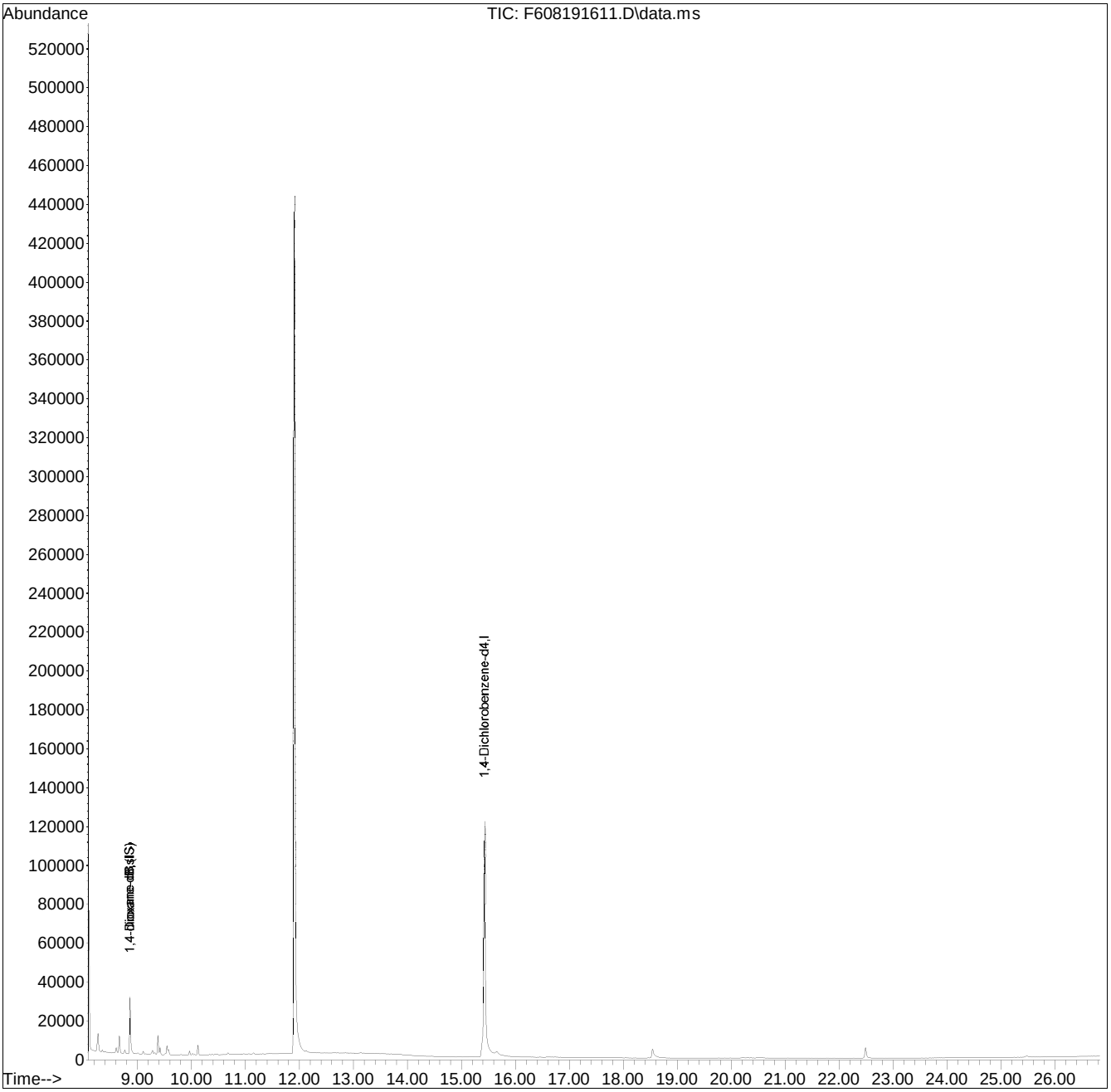
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.858	64	17870	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	177316	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.858	64	17870	116.446	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.29%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191611.D
Acq On : 19 Aug 2016 9:43 pm
Operator : BNA6:WR
Sample : L1625725-03
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 23 13:41:11 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191612.D
Acq On : 19 Aug 2016 10:27 pm
Operator : BNA6:WR
Sample : L1625725-04
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 23 13:41:41 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.861	64	17703	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	173401	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.861	64	17703	117.962	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.59%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.947	88	925M4	18.230	ng/mL	

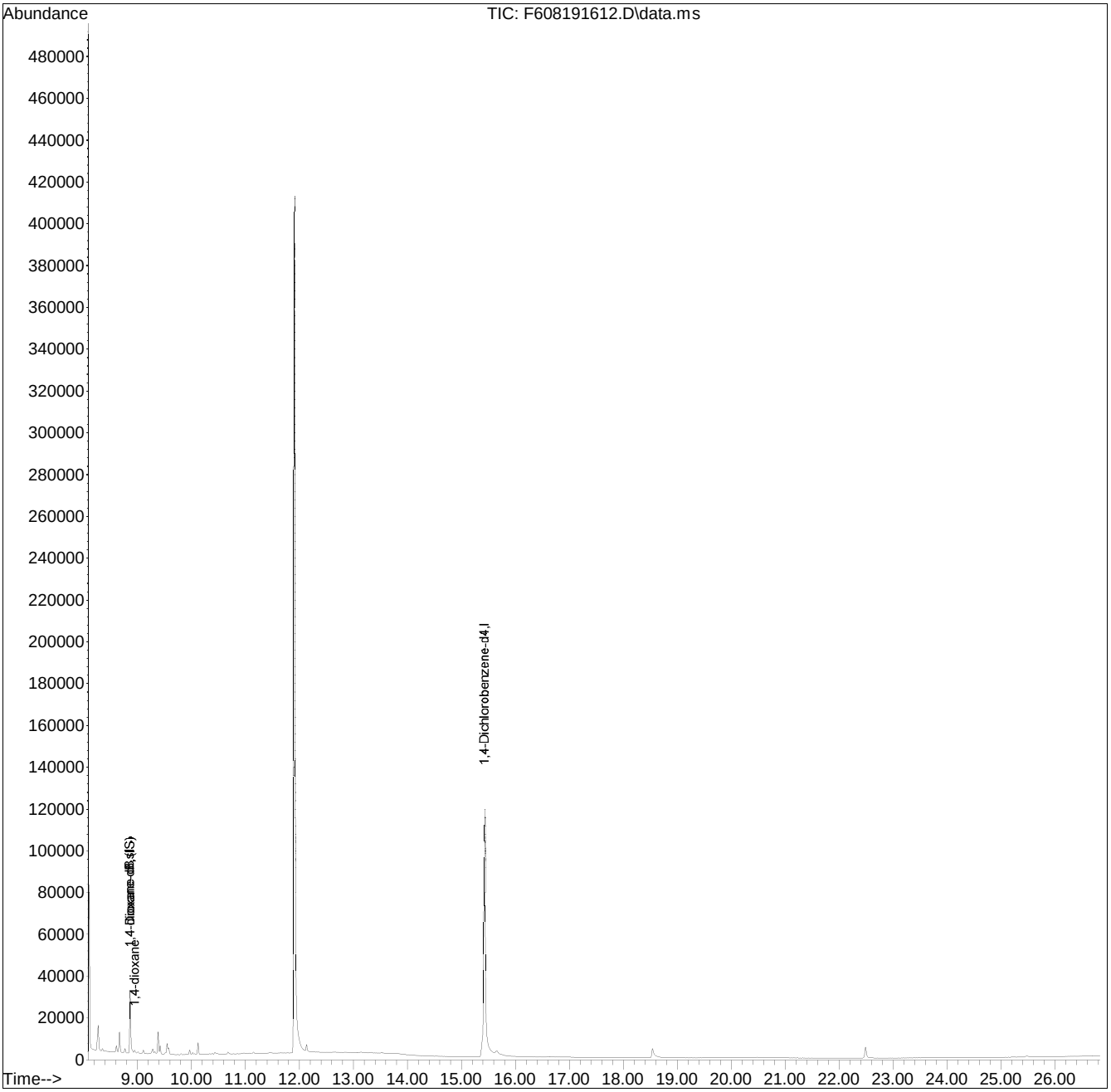
(#) = qualifier out of range (m) = manual integration (+) = signals summed

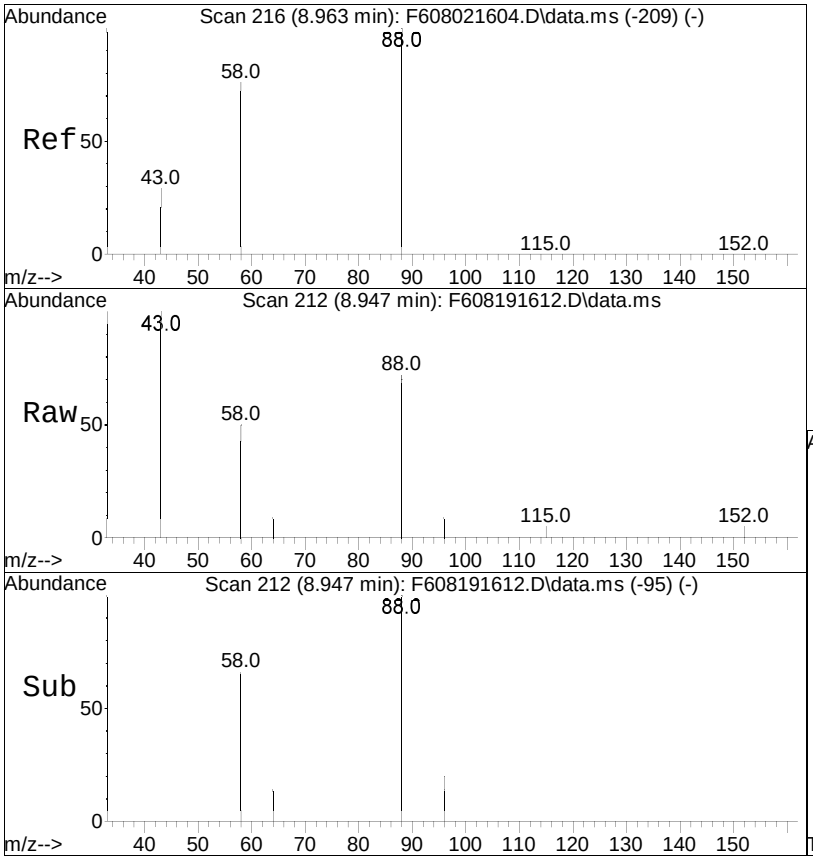
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191612.D
Acq On : 19 Aug 2016 10:27 pm
Operator : BNA6:WR
Sample : L1625725-04
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 23 13:41:41 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

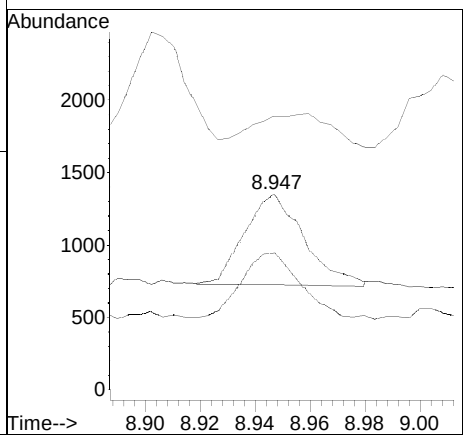




#2
1,4-dioxane
Concen: 18.23 ng/mL M4
RT: 8.947 min Scan# 212
Delta R.T. -0.024 min
Lab File: F608191612.D
Acq: 19 Aug 2016 10:27 pm

Tgt Ion: 88 Resp: 925

Ion	Ratio	Lower	Upper
88	100		
58	77.9	62.1	93.1
43	60.3	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191613.D
Acq On : 19 Aug 2016 11:11 pm
Operator : BNA6:WR
Sample : L1625725-05
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 23 13:42:17 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

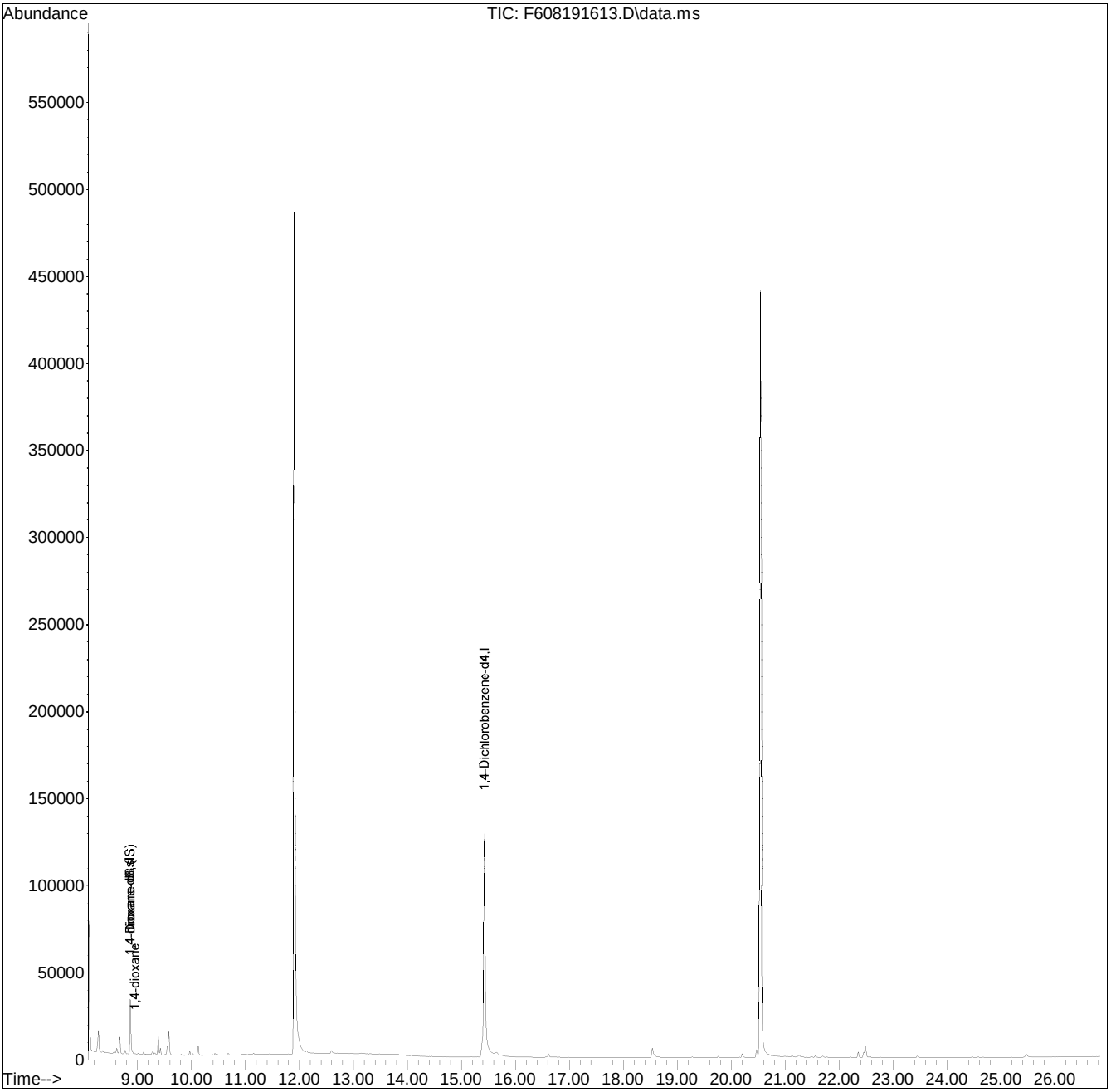
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.866	64	19108	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.426	152	186567	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.866	64	19108	118.339	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.67%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	189M4	3.451	ng/mL	

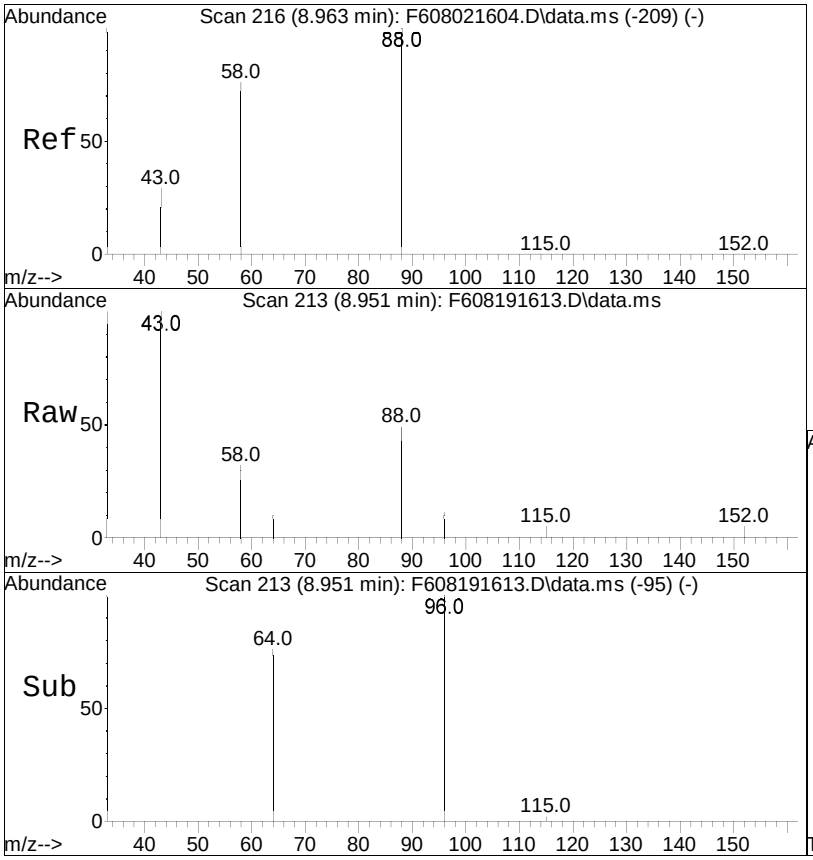
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191613.D
Acq On : 19 Aug 2016 11:11 pm
Operator : BNA6:WR
Sample : L1625725-05
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 23 13:42:17 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

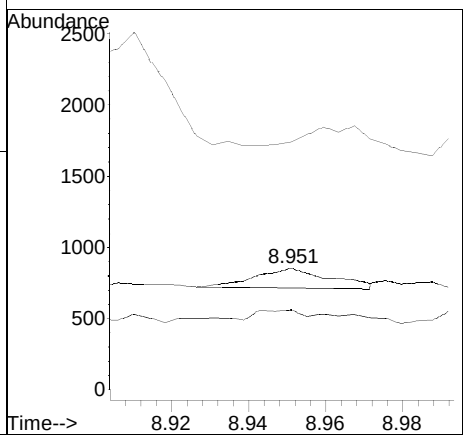




#2
1,4-dioxane
Concen: 3.45 ng/mL M4
RT: 8.951 min Scan# 213
Delta R.T. -0.020 min
Lab File: F608191613.D
Acq: 19 Aug 2016 11:11 pm

Tgt Ion: 88 Resp: 189

Ion	Ratio	Lower	Upper
88	100		
58	29.6	62.1	93.1#
43	152.4	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191614.D
Acq On : 19 Aug 2016 11:55 pm
Operator : BNA6:WR
Sample : L1625725-06
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 23 13:43:20 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.853	64	19572	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	178401	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.853	64	19572	126.761	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.35%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.943	88	237M4	4.225	ng/mL	

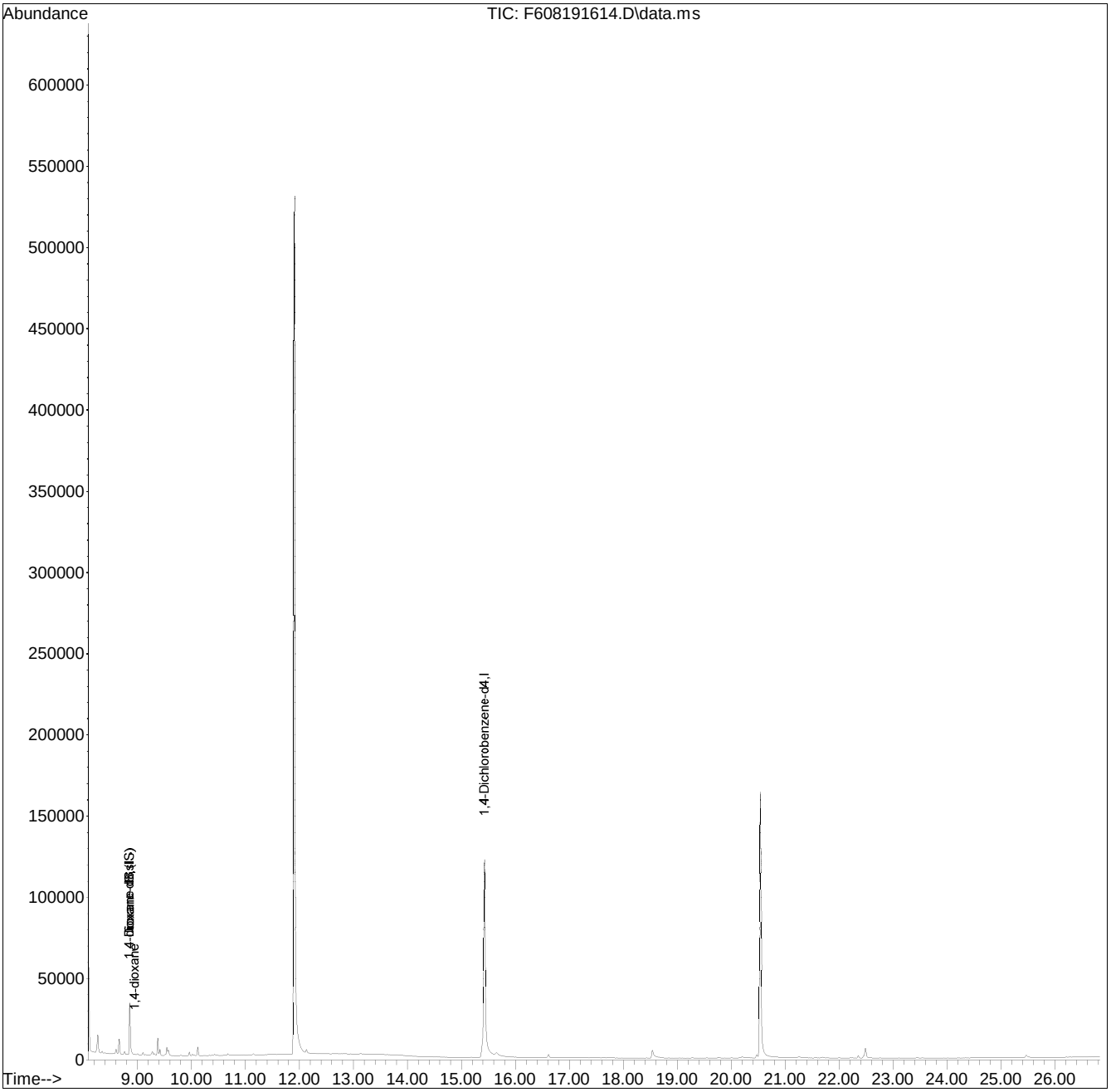
(#) = qualifier out of range (m) = manual integration (+) = signals summed

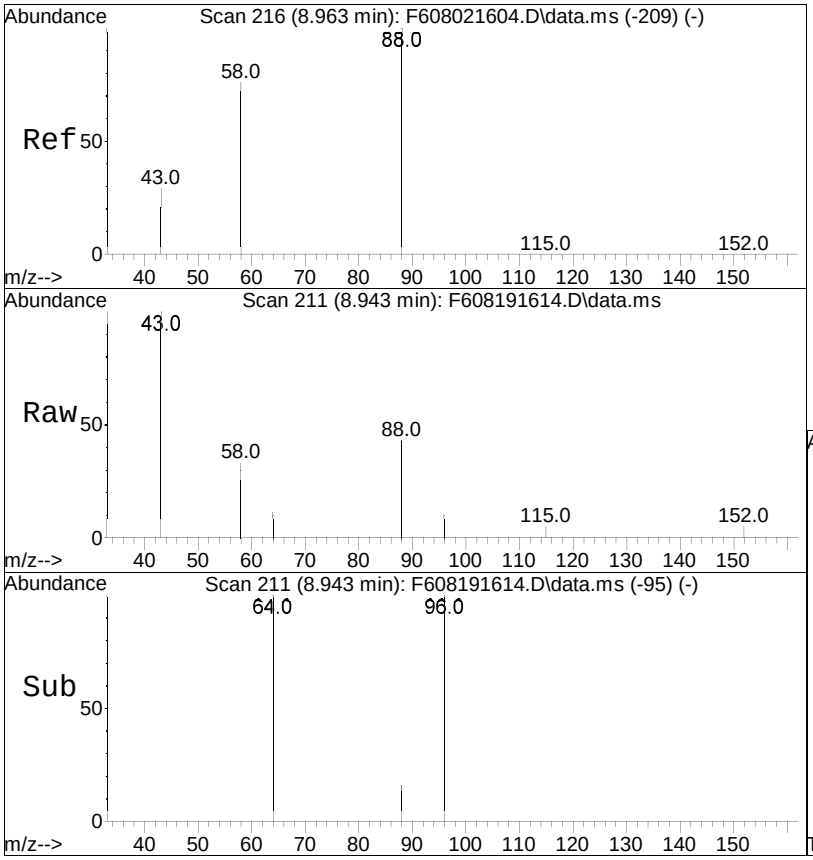
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191614.D
Acq On : 19 Aug 2016 11:55 pm
Operator : BNA6:WR
Sample : L1625725-06
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 23 13:43:20 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

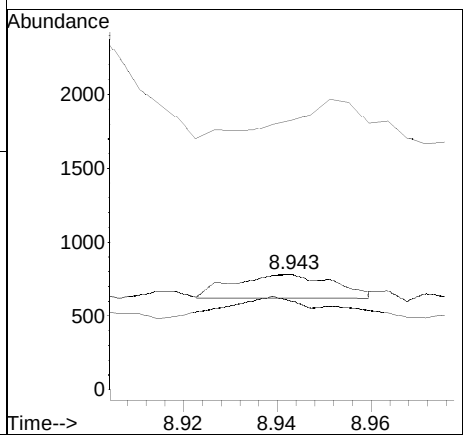




#2
1,4-dioxane
Concen: 4.22 ng/mL M4
RT: 8.943 min Scan# 211
Delta R.T. -0.028 min
Lab File: F608191614.D
Acq: 19 Aug 2016 11:55 pm

Tgt Ion: 88 Resp: 237

Ion	Ratio	Lower	Upper
88	100		
58	0.0	62.1	93.1#
43	0.0	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191615.D
Acq On : 20 Aug 2016 12:39 am
Operator : BNA6:WR
Sample : L1625725-07
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 23 13:44:05 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

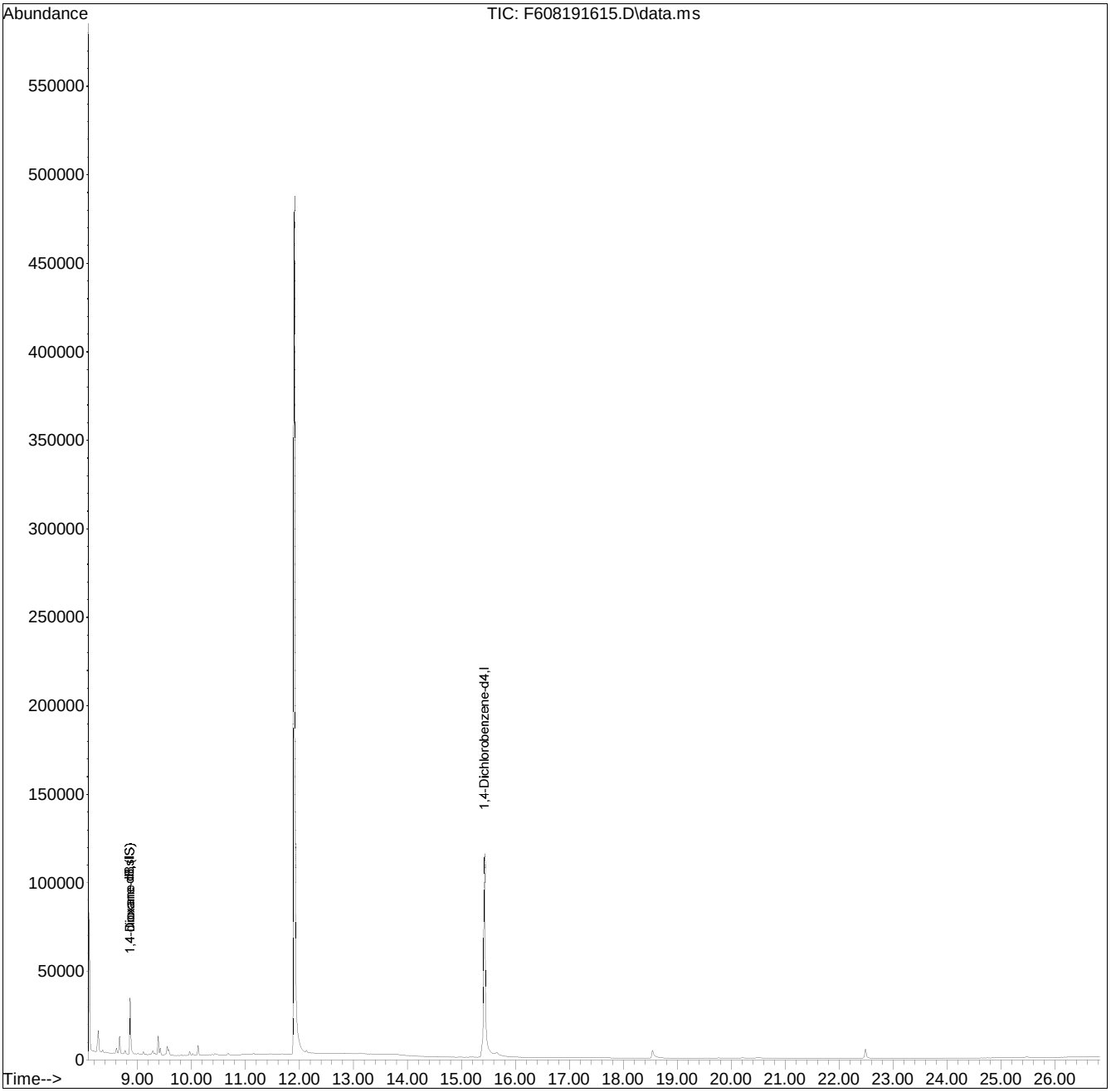
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.861	64	19133	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	167989	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.861	64	19133	131.598	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 26.32%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191615.D
Acq On : 20 Aug 2016 12:39 am
Operator : BNA6:WR
Sample : L1625725-07
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 23 13:44:05 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191616.D
Acq On : 20 Aug 2016 1:23 am
Operator : BNA6:WR
Sample : L1625725-08
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 23 13:44:44 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.862	64	18716	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	178827	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.862	64	18716	120.928	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.19%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.947	88	855M4	15.939	ng/mL	

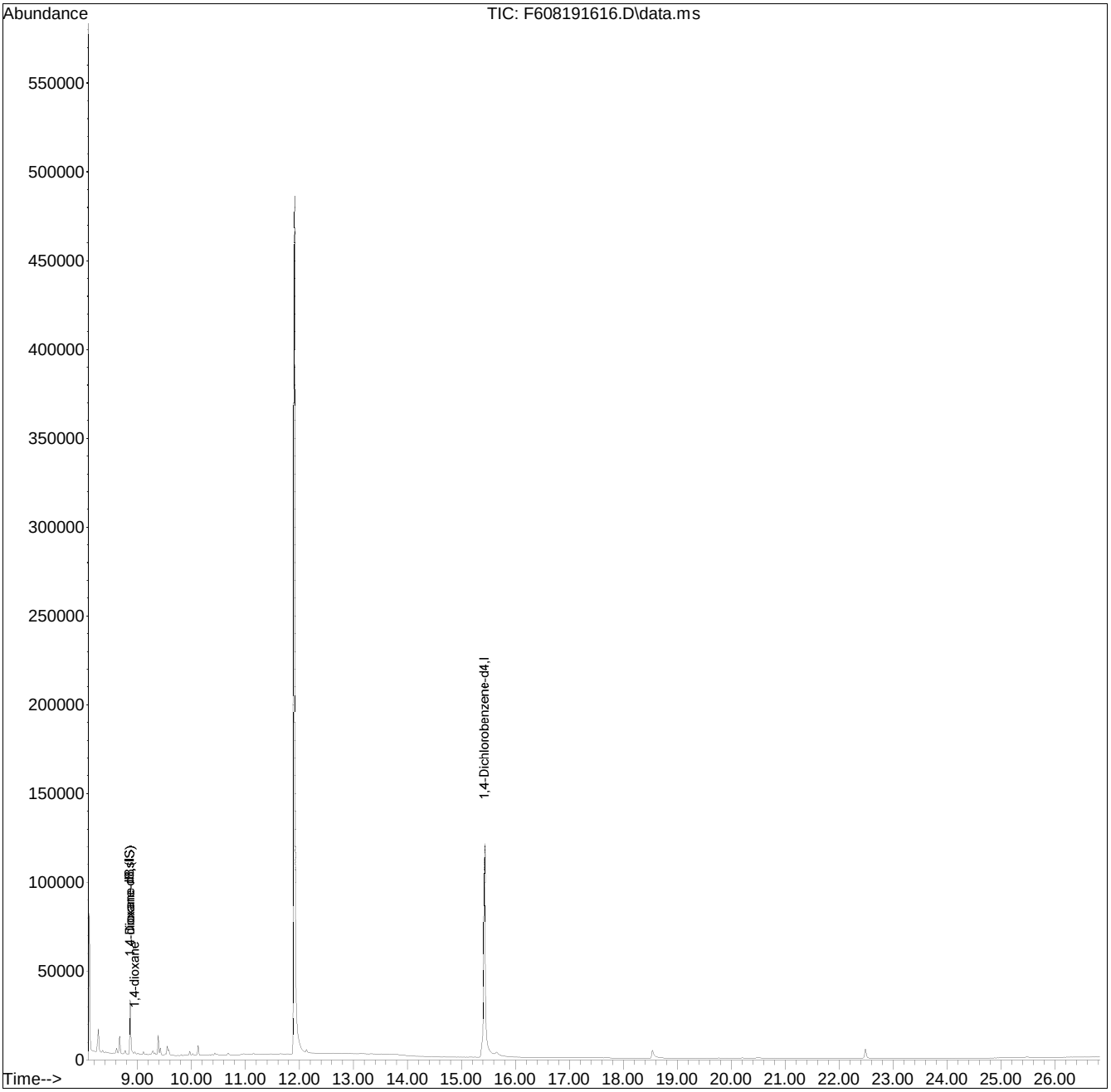
(#) = qualifier out of range (m) = manual integration (+) = signals summed

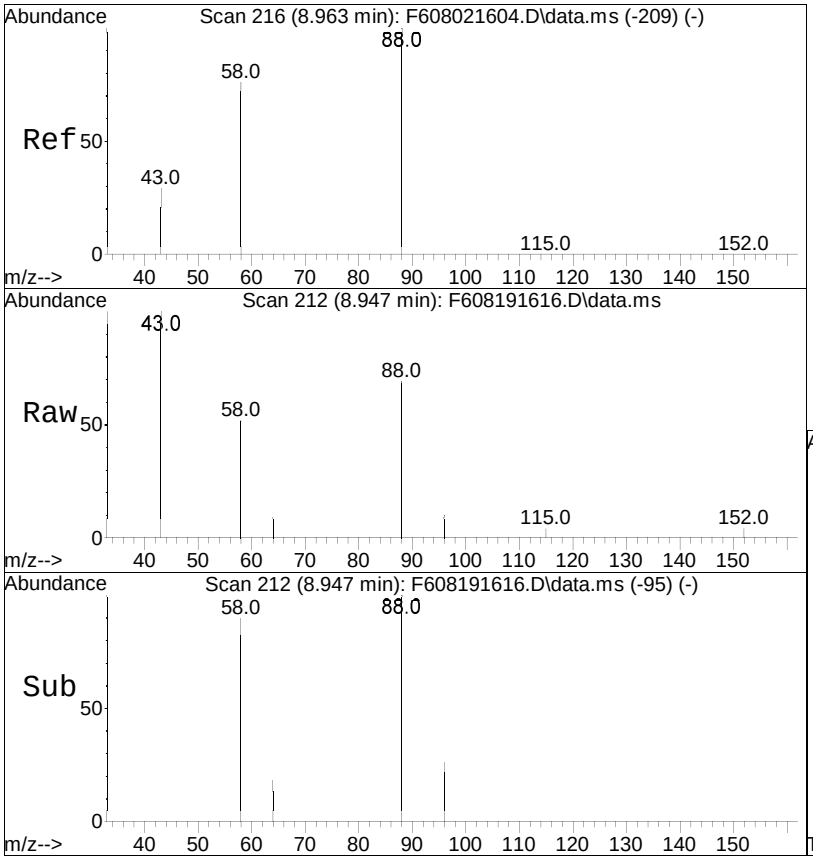
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191616.D
Acq On : 20 Aug 2016 1:23 am
Operator : BNA6:WR
Sample : L1625725-08
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 23 13:44:44 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

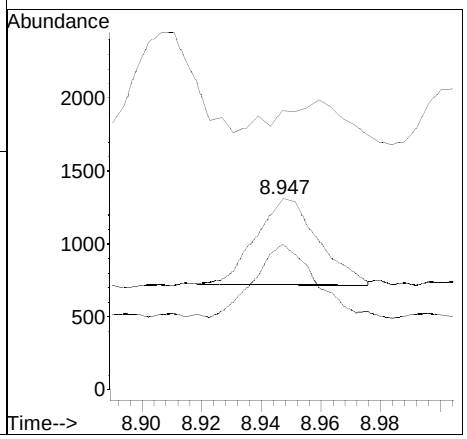




#2
1,4-dioxane
Concen: 15.94 ng/mL M4
RT: 8.947 min Scan# 212
Delta R.T. -0.024 min
Lab File: F608191616.D
Acq: 20 Aug 2016 1:23 am

Tgt Ion: 88 Resp: 855

Ion	Ratio	Lower	Upper
88	100		
58	84.9	62.1	93.1
43	38.9	24.4	36.6#



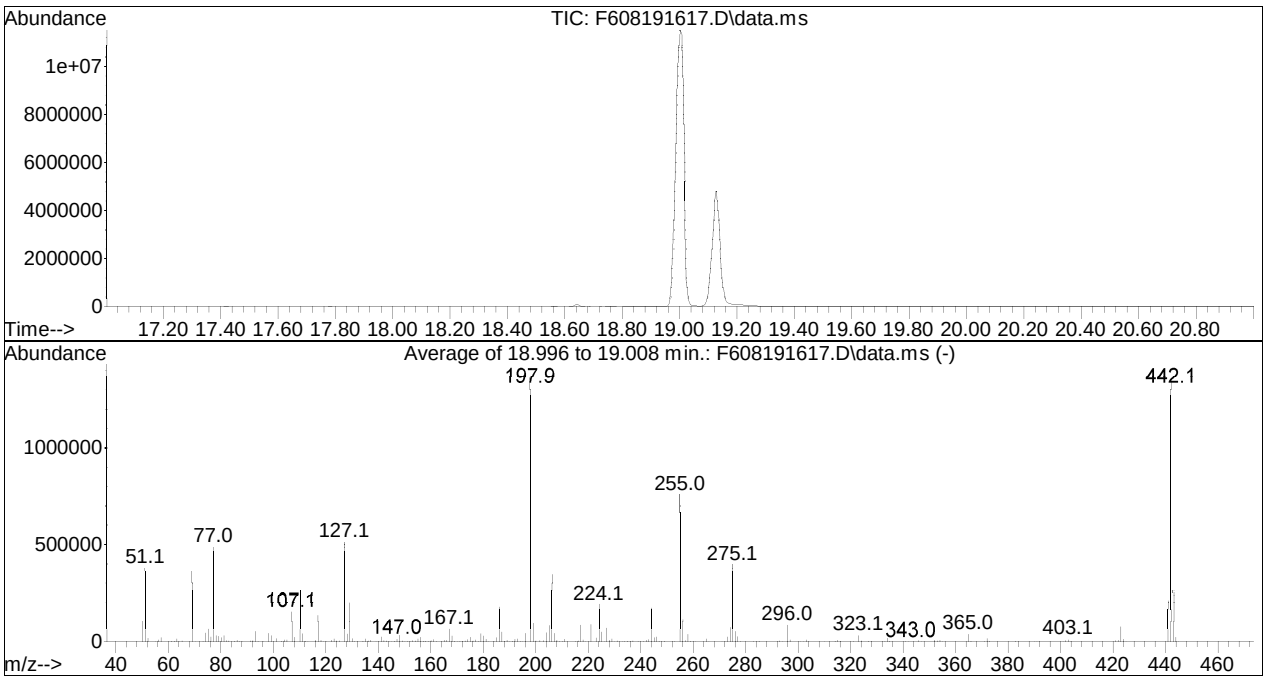
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191617.D
Acq On : 20 Aug 2016 2:03 am
Operator : BNA6:WR
Sample : WG924327-4
Misc : WG924327,MSAK38
ALS Vial : 15 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



AutoFind: Scans 1866, 1867, 1868; Background Corrected with Scan 1852

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	27.7	377614	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2067	PASS
127	198	10	80	37.6	512269	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1362929	PASS
199	198	5	9	6.7	91349	PASS
275	198	10	60	29.0	394795	PASS
365	198	1	100	2.8	38064	PASS
441	442	0.01	24	15.6	211691	PASS
442	198	50	100	99.9	1360963	PASS
443	442	15	24	19.6	266453	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191618.D
Acq On : 20 Aug 2016 2:59 am
Operator : BNA6:WR
Sample : WG924327-6
Misc : WG924327,MSAK15
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 23 12:57:58 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	97	-0.07
2	1,4-dioxane	1.433	1.341	6.4	89	-0.07
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	-0.09
4 s	1,4-dioxane-d8	0.433	0.430	0.7	96	-0.07

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191618.D
Acq On : 20 Aug 2016 2:59 am
Operator : BNA6:WR
Sample : WG924327-6
Misc : WG924327,MSAK15
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 23 12:57:58 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.833	64	81451	500.000	ng/mL	-0.07
3) 1,4-Dichlorobenzene-d4	15.422	152	189317	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.833	64	81451	497.113	ng/mL	-0.07
Spiked Amount 500.000	Range 15 - 115		Recovery = 99.42%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.906	88	218475	935.854	ng/mL	99

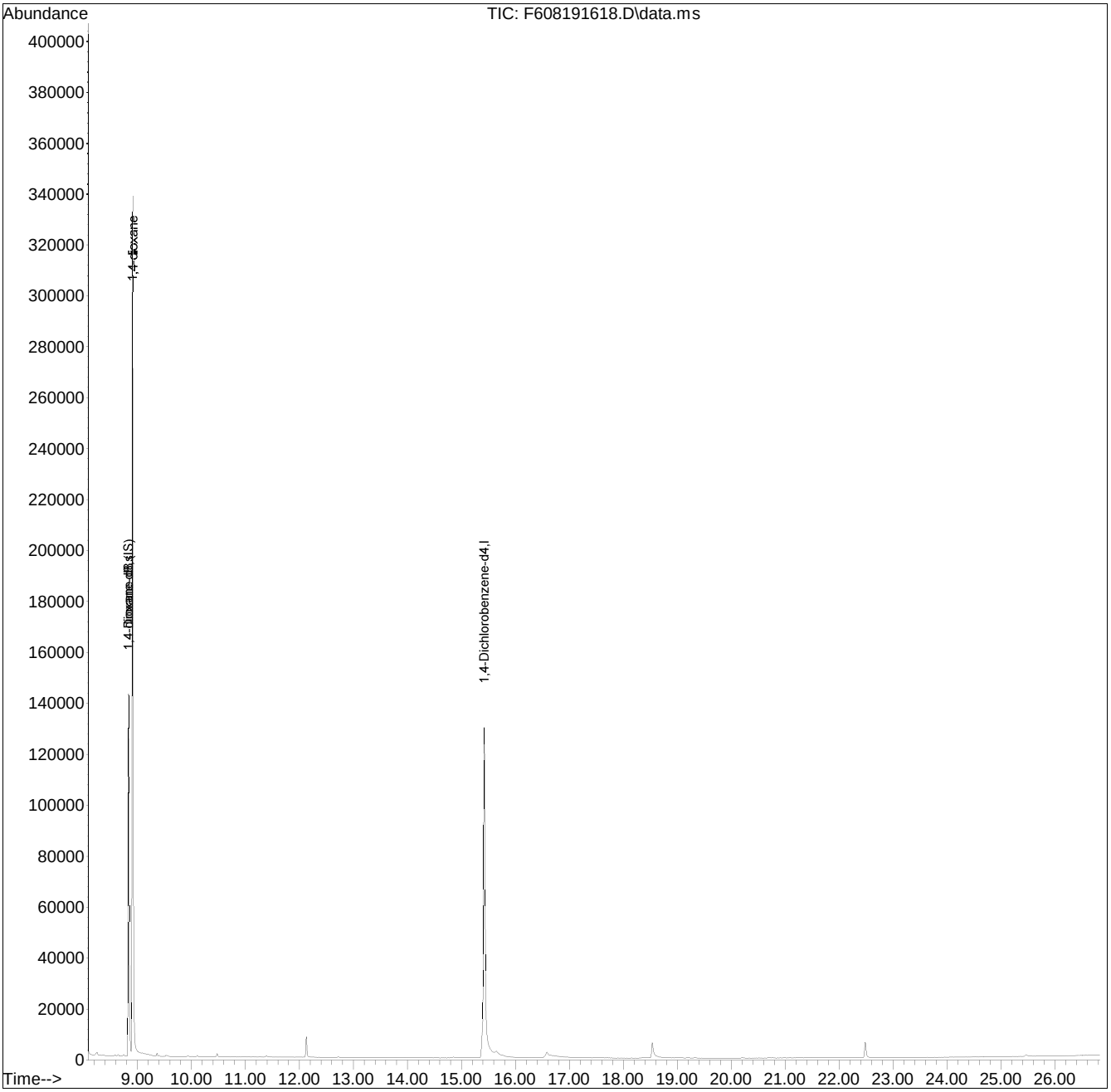
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191618.D
Acq On : 20 Aug 2016 2:59 am
Operator : BNA6:WR
Sample : WG924327-6
Misc : WG924327,MSAK15
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 23 12:57:58 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191619.D
Acq On : 20 Aug 2016 3:42 am
Operator : BNA6:WR
Sample : L1625725-09
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 23 13:45:13 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

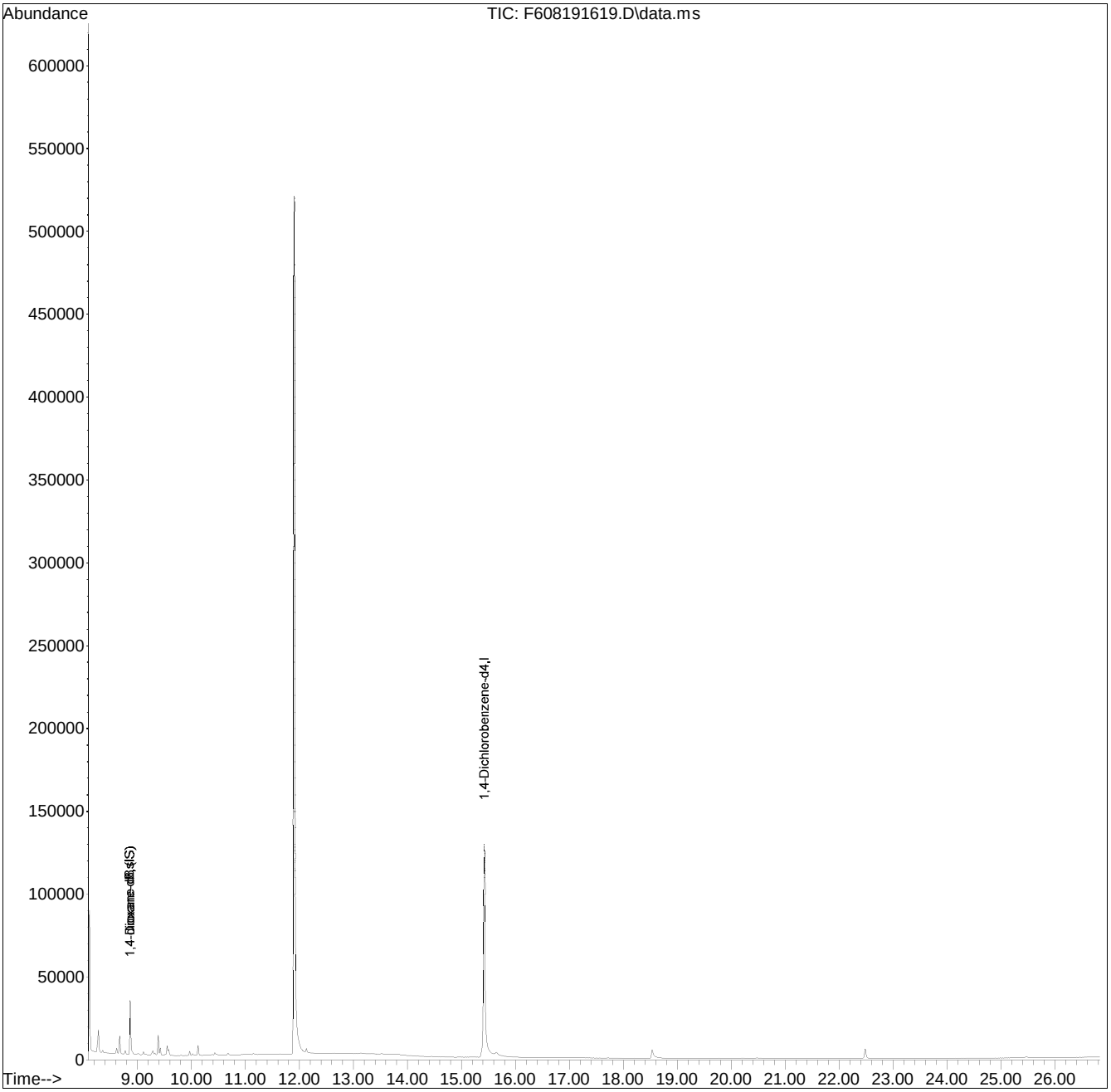
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.862	64	19996	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	183896	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.862	64	19996	125.638	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.13%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191619.D
Acq On : 20 Aug 2016 3:42 am
Operator : BNA6:WR
Sample : L1625725-09
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 23 13:45:13 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191622.D
Acq On : 20 Aug 2016 5:53 am
Operator : BNA6:WR
Sample : L1625725-10
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 23 13:46:39 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

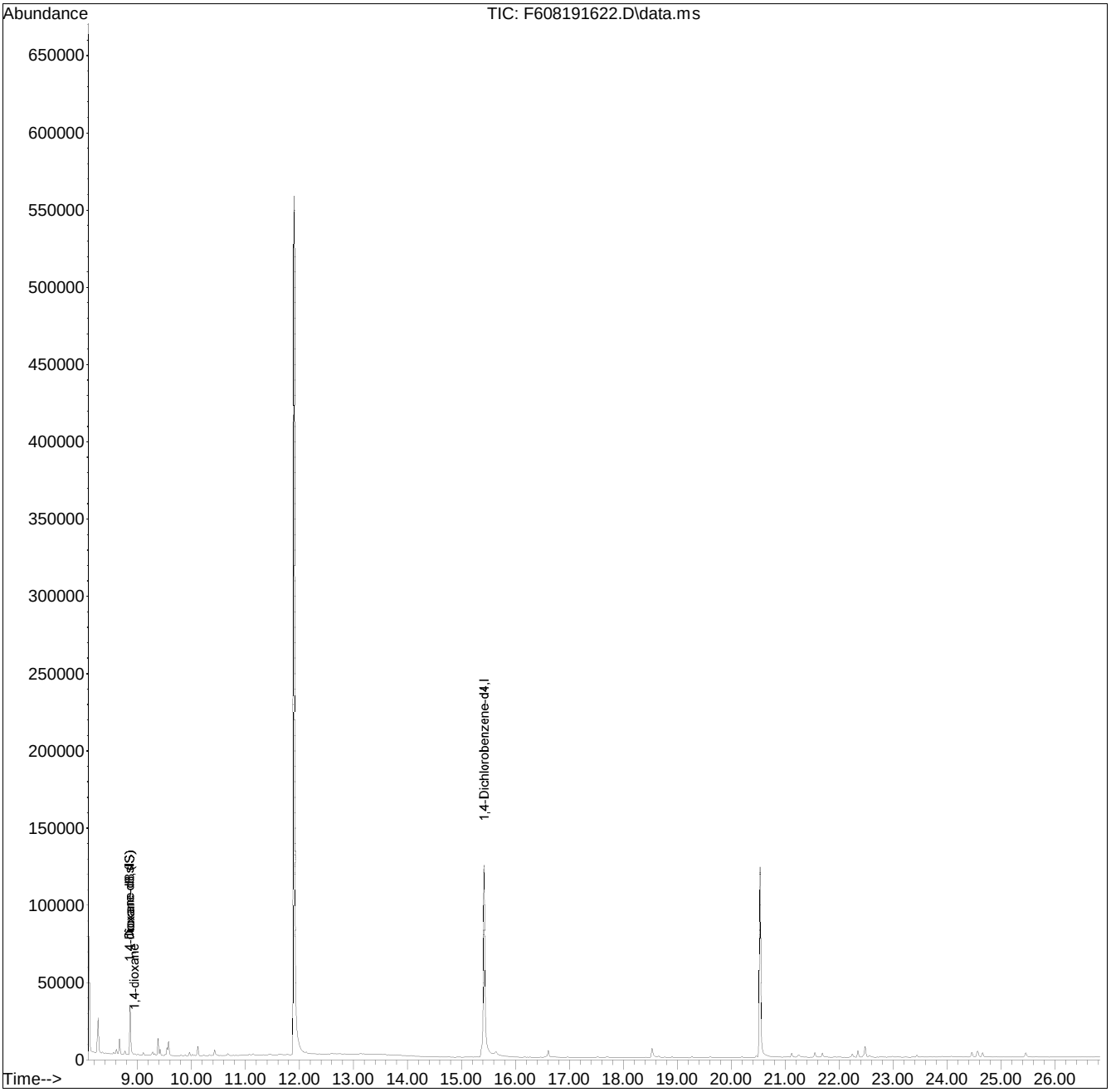
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.861	64	19547	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	180491	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.861	64	19547	125.133	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.03%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.947	88	404M4	7.211	ng/mL	

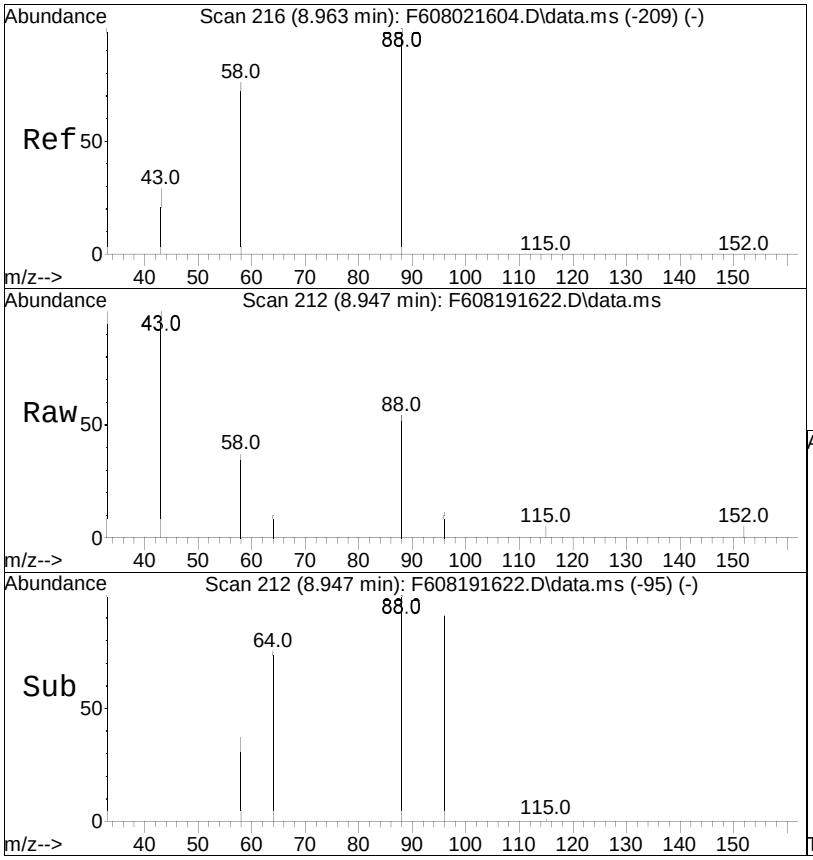
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191622.D
Acq On : 20 Aug 2016 5:53 am
Operator : BNA6:WR
Sample : L1625725-10
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 23 13:46:39 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

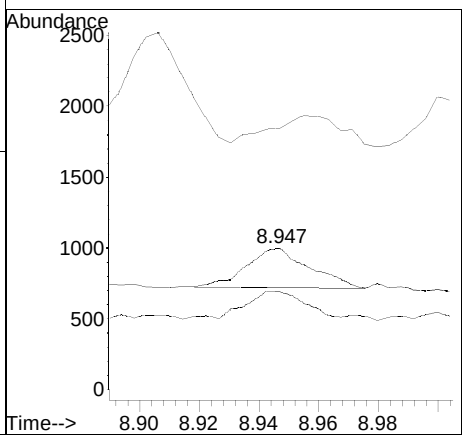




#2
1,4-dioxane
Concen: 7.21 ng/mL M4
RT: 8.947 min Scan# 212
Delta R.T. -0.024 min
Lab File: F608191622.D
Acq: 20 Aug 2016 5:53 am

Tgt Ion: 88 Resp: 404

Ion	Ratio	Lower	Upper
88	100		
58	66.1	62.1	93.1
43	116.1	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191623.D
Acq On : 20 Aug 2016 6:36 am
Operator : BNA6:WR
Sample : L1625725-11
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 27 11:46:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Tue Sep 27 11:47:05 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.878	64	40782	1000.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.422	152	172840M4	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.878	64	40782	272.629	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 54.53%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.963	88	1680M4	28.746	ng/mL	

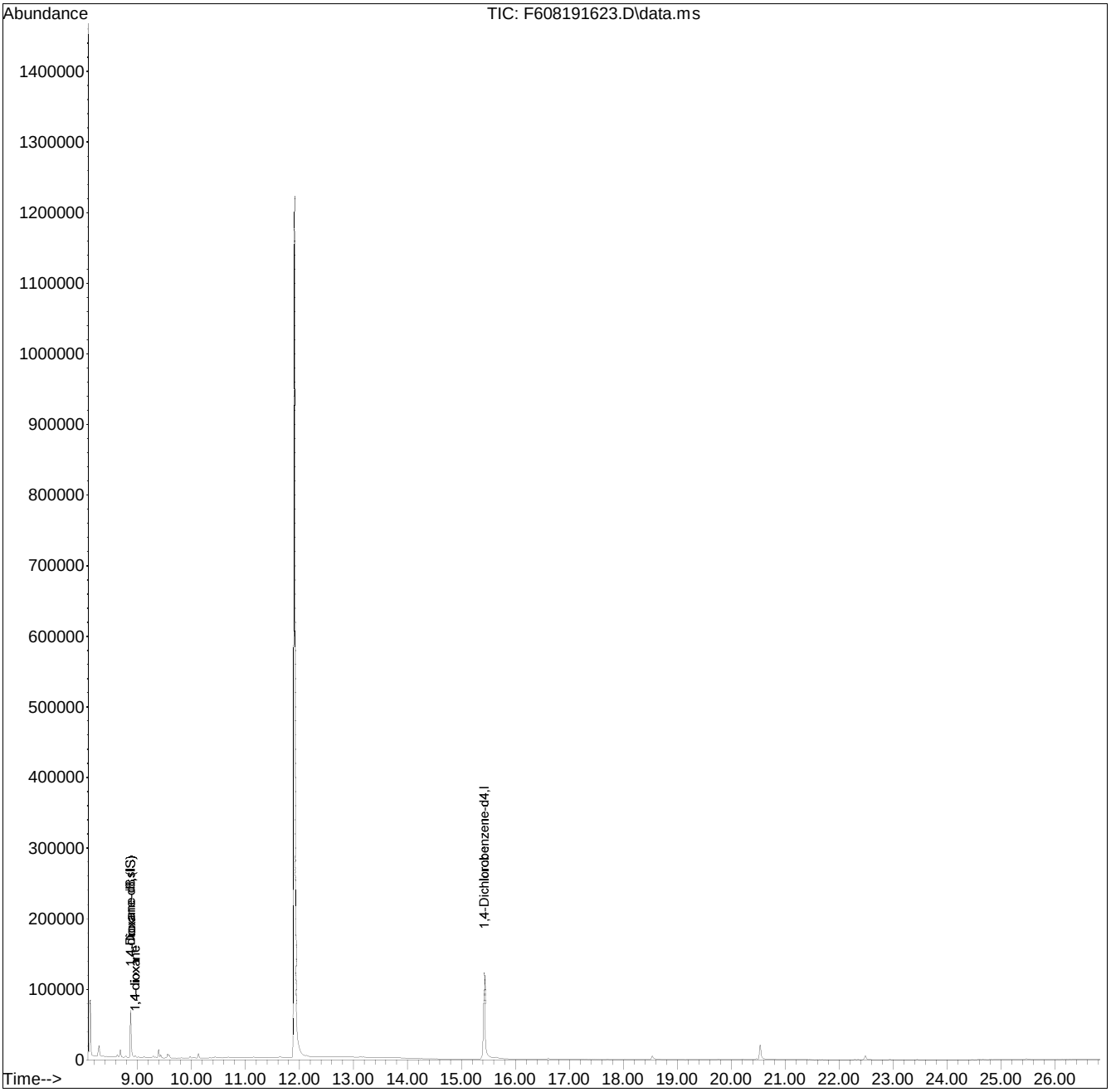
(#) = qualifier out of range (m) = manual integration (+) = signals summed

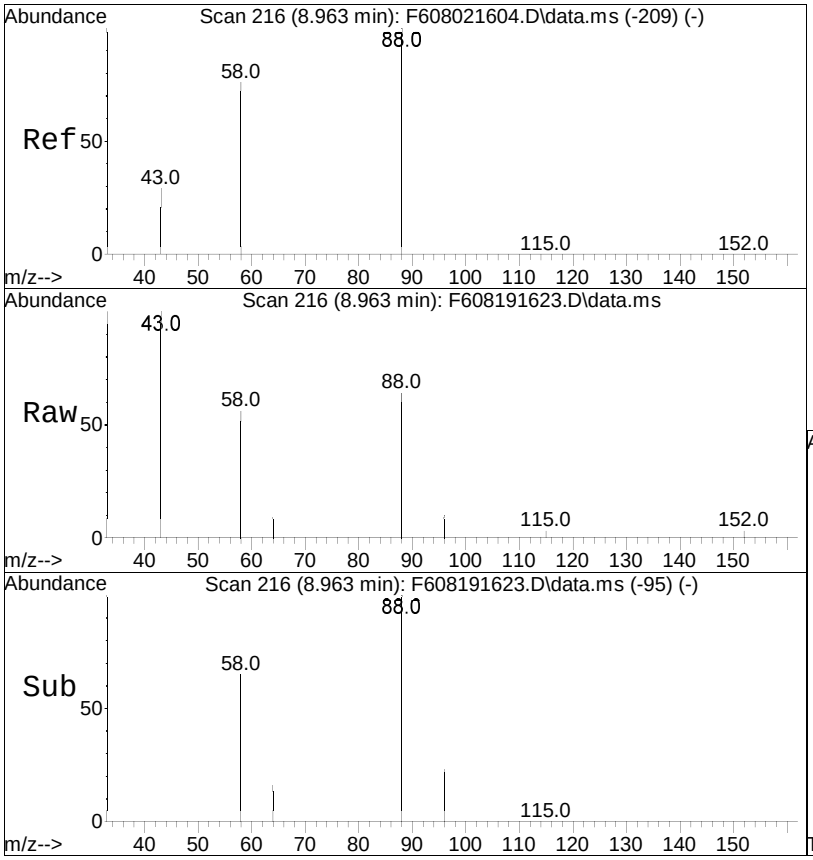
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191623.D
Acq On : 20 Aug 2016 6:36 am
Operator : BNA6:WR
Sample : L1625725-11
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 27 11:46:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Tue Sep 27 11:47:05 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

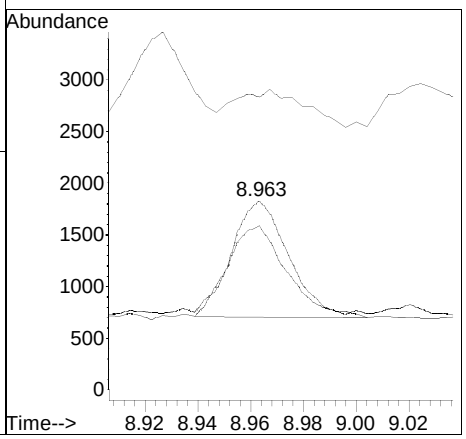




#2
1,4-dioxane
Concen: 28.75 ng/mL M4
RT: 8.963 min Scan# 216
Delta R.T. -0.008 min
Lab File: F608191623.D
Acq: 20 Aug 2016 6:36 am

Tgt Ion: 88 Resp: 1680

Ion	Ratio	Lower	Upper
88	100		
58	75.3	62.1	93.1
43	46.3	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191624.D
Acq On : 20 Aug 2016 7:20 am
Operator : BNA6:WR
Sample : L1625725-12
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Aug 23 13:48:16 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.857	64	18585	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	171611	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.857	64	18585	125.131	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.03%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.943	88	349M4	6.552	ng/mL	

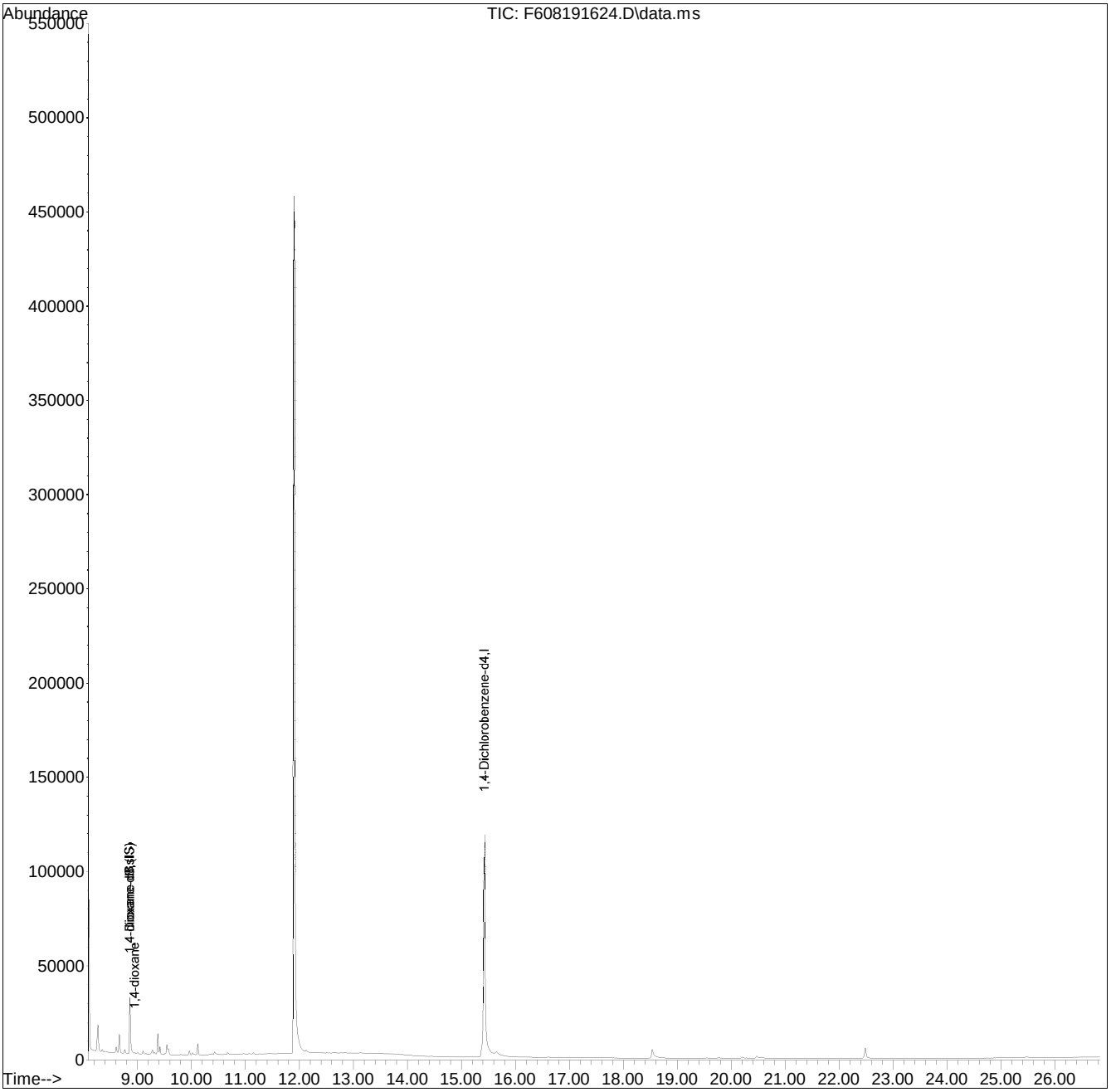
(#) = qualifier out of range (m) = manual integration (+) = signals summed

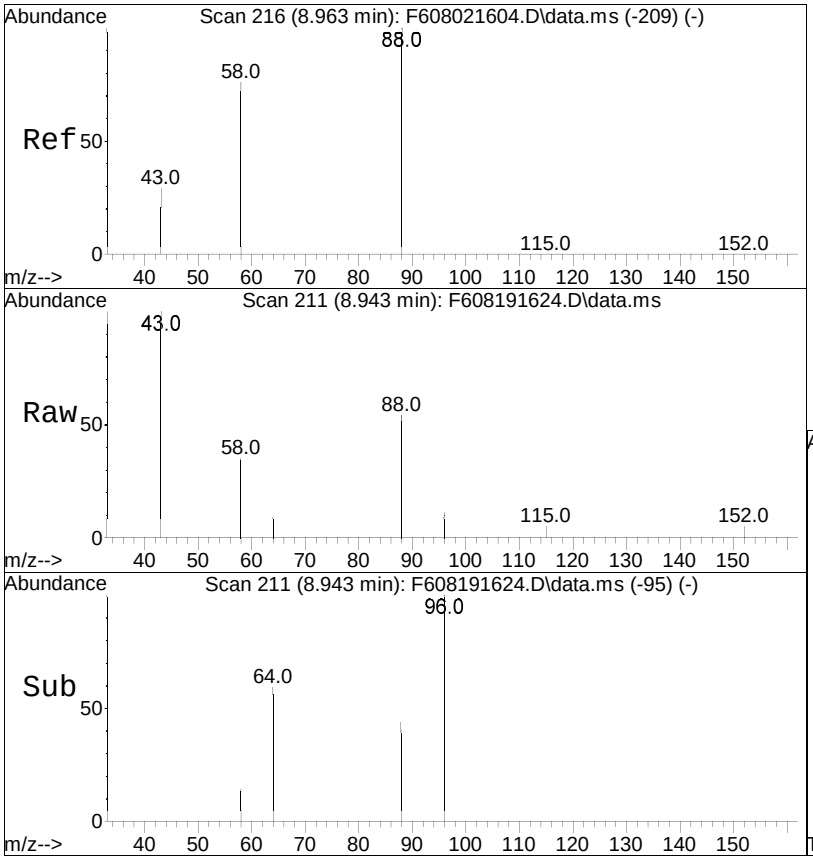
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191624.D
Acq On : 20 Aug 2016 7:20 am
Operator : BNA6:WR
Sample : L1625725-12
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Aug 23 13:48:16 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

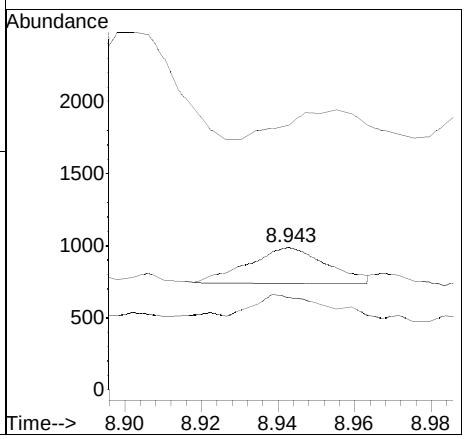




#2
1,4-dioxane
Concen: 6.55 ng/mL M4
RT: 8.943 min Scan# 211
Delta R.T. -0.028 min
Lab File: F608191624.D
Acq: 20 Aug 2016 7:20 am

Tgt Ion: 88 Resp: 349

Ion	Ratio	Lower	Upper
88	100		
58	67.0	62.1	93.1
43	128.9	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191625.D
Acq On : 20 Aug 2016 8:04 am
Operator : BNA6:WR
Sample : L1625725-13
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Aug 23 13:48:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

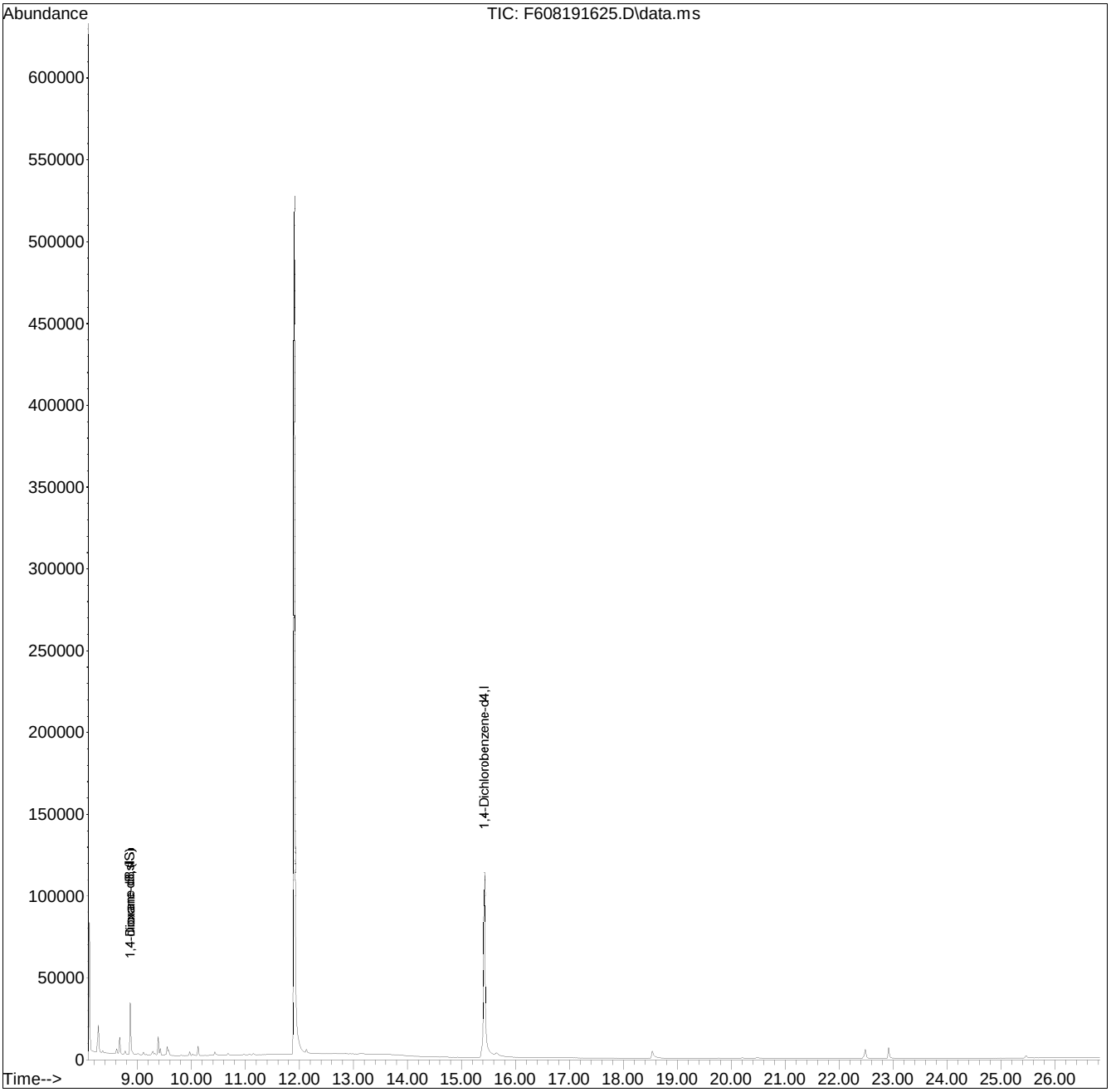
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.866	64	19580	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	168070	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.866	64	19580	134.608	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 26.92%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191625.D
Acq On : 20 Aug 2016 8:04 am
Operator : BNA6:WR
Sample : L1625725-13
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Aug 23 13:48:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191626.D
Acq On : 20 Aug 2016 8:47 am
Operator : BNA6:WR
Sample : L1625725-14
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Aug 23 13:49:10 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

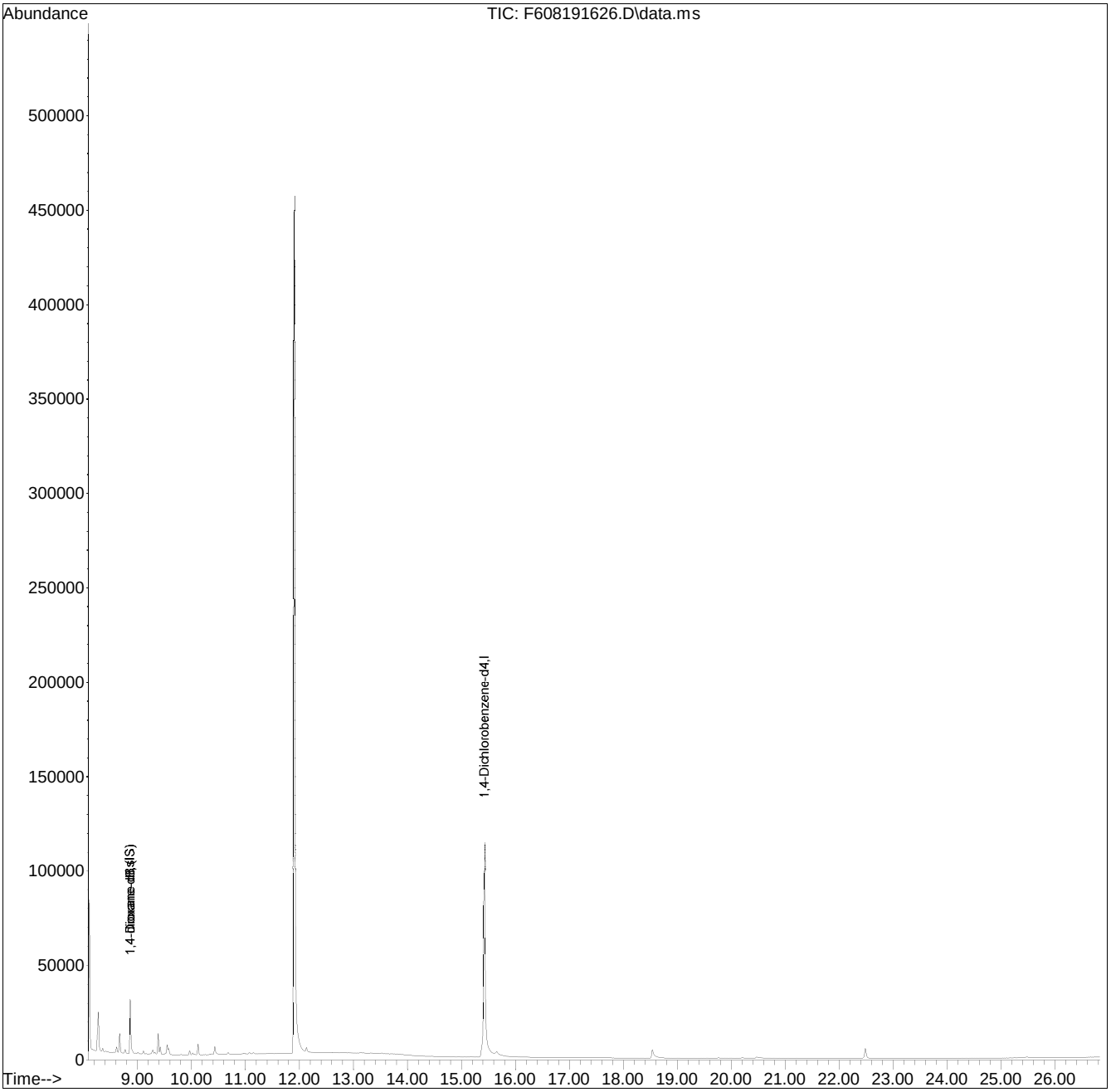
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.865	64	17770	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	167272	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.865	64	17770	122.748	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.55%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191626.D
Acq On : 20 Aug 2016 8:47 am
Operator : BNA6:WR
Sample : L1625725-14
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Aug 23 13:49:10 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Batch Quality Control

Method Blank
Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191605.D
Acq On : 19 Aug 2016 5:15 pm
Operator : BNA6:WR
Sample : WG924185-1
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 23 13:37:31 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.861	64	27089	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.430	152	190886	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.861	64	27089	163.971	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 32.79%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

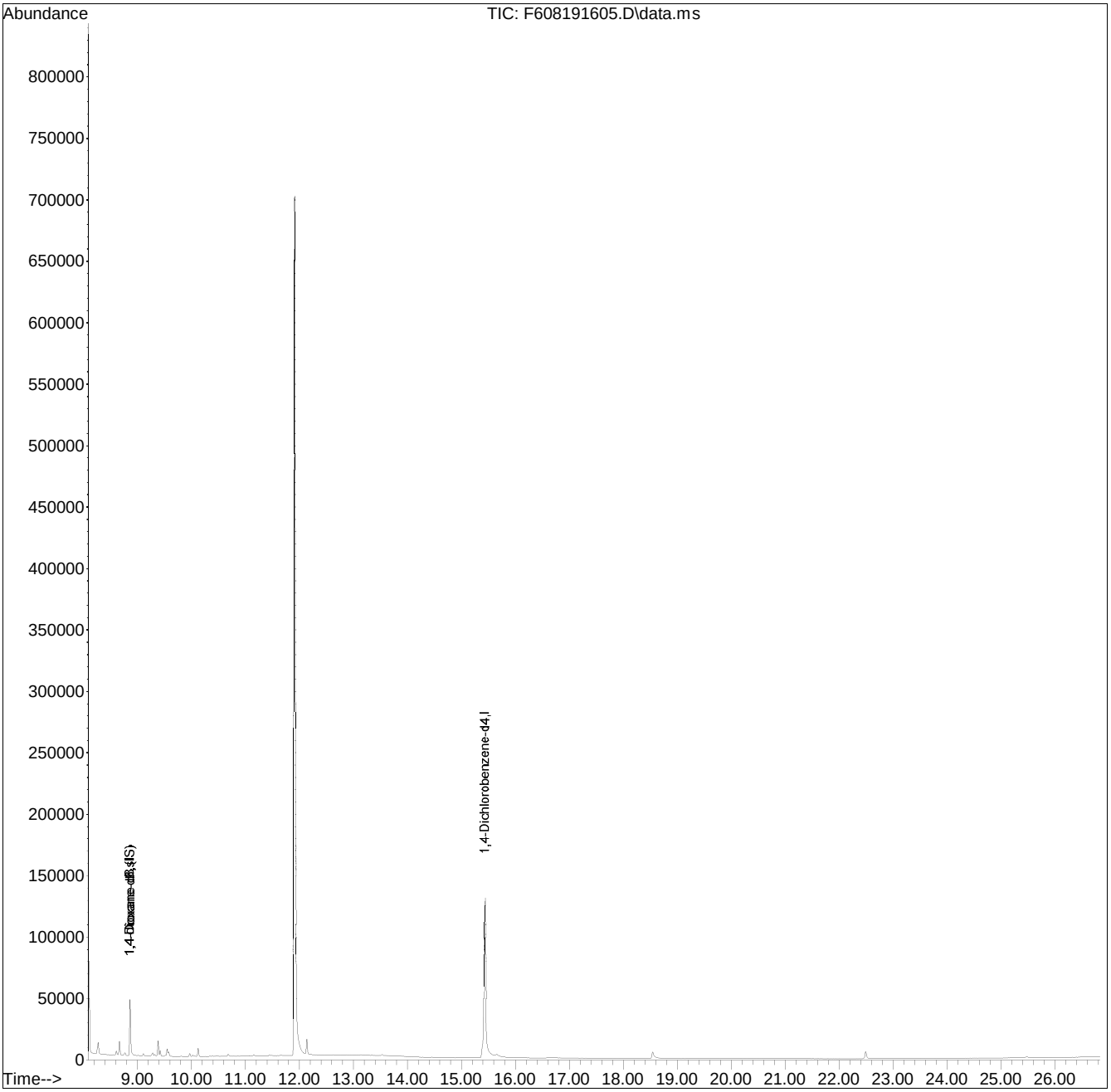
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191605.D
Acq On : 19 Aug 2016 5:15 pm
Operator : BNA6:WR
Sample : WG924185-1
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 23 13:37:31 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191606.D
Acq On : 19 Aug 2016 6:00 pm
Operator : BNA6:WR
Sample : WG924185-2
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 23 13:38:25 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.882	64	28294M4	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.430	152	187675	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.882	64	28312M4	174.306	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 34.86%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.955	88	44774	552.121	ng/mL	99

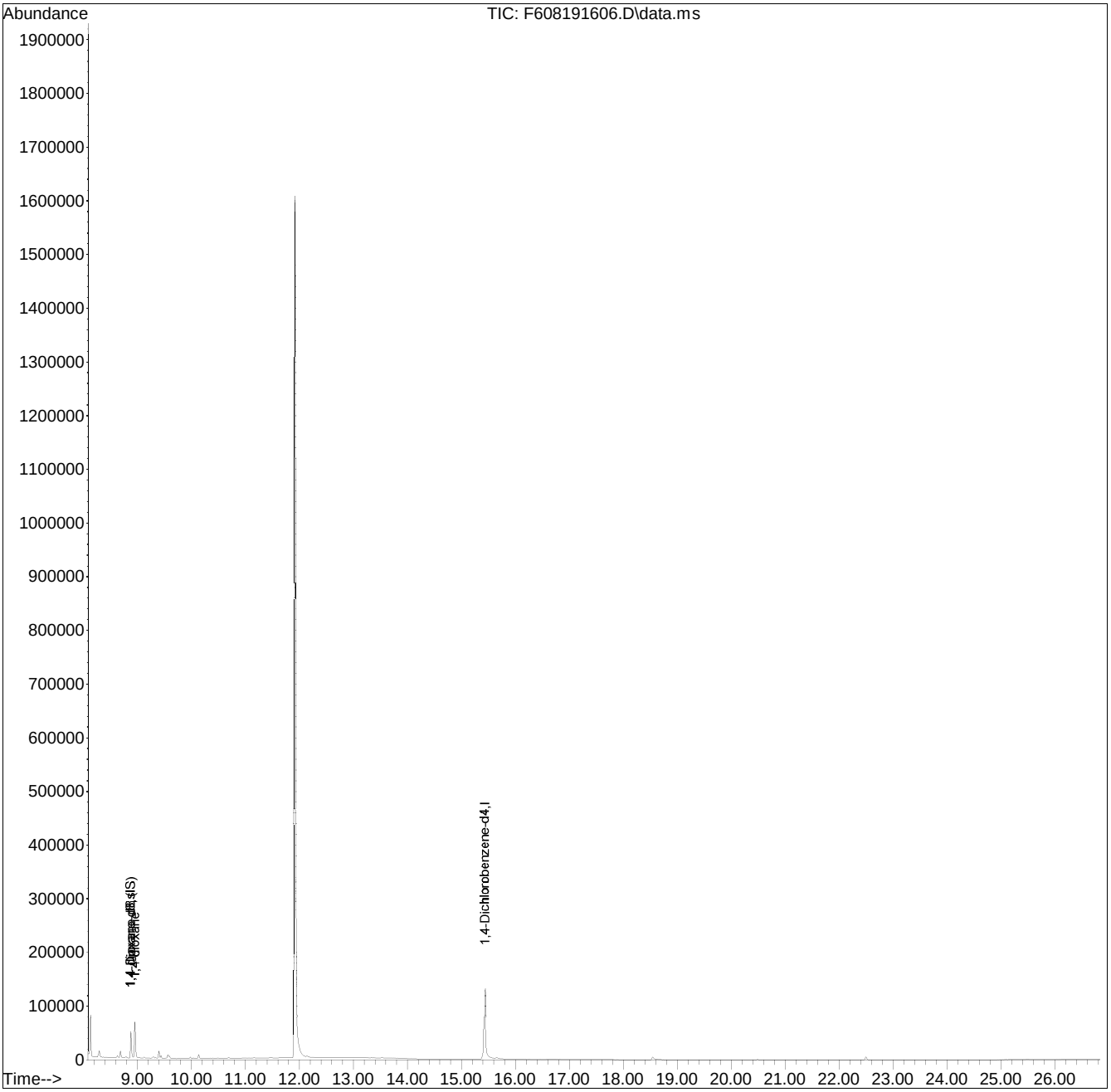
(#) = qualifier out of range (m) = manual integration (+) = signals summed

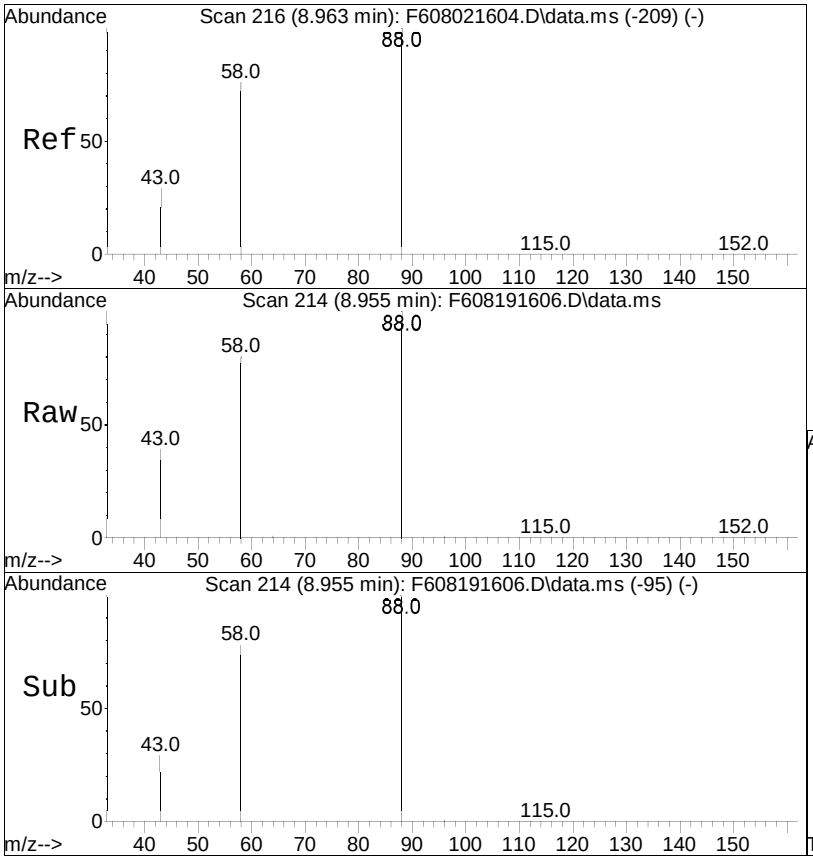
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191606.D
Acq On : 19 Aug 2016 6:00 pm
Operator : BNA6:WR
Sample : WG924185-2
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 23 13:38:25 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

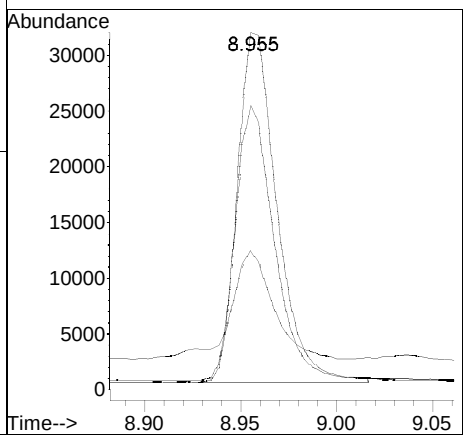




#2
1,4-dioxane
Concen: 552.12 ng/mL
RT: 8.955 min Scan# 214
Delta R.T. -0.016 min
Lab File: F608191606.D
Acq: 19 Aug 2016 6:00 pm

Tgt Ion: 88 Resp: 44774

Ion	Ratio	Lower	Upper
88	100		
58	77.8	62.1	93.1
43	31.6	24.4	36.6



LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191607.D
Acq On : 19 Aug 2016 6:45 pm
Operator : BNA6:WR
Sample : WG924185-3
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 23 12:57:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

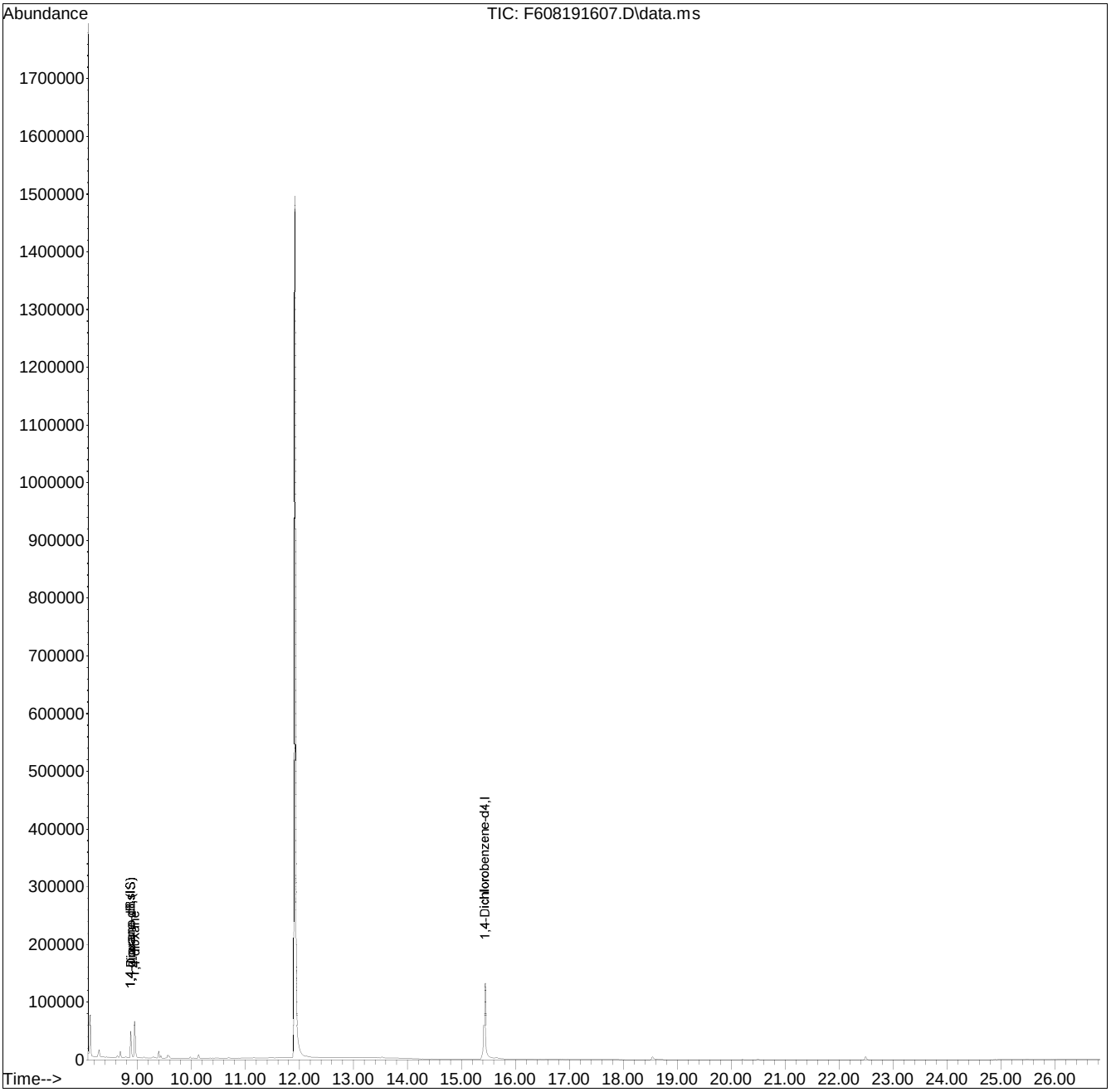
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.878	64	26743	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.430	152	185516	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.878	64	26743	166.563	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 33.31%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.955	88	41939	547.156	ng/mL	99

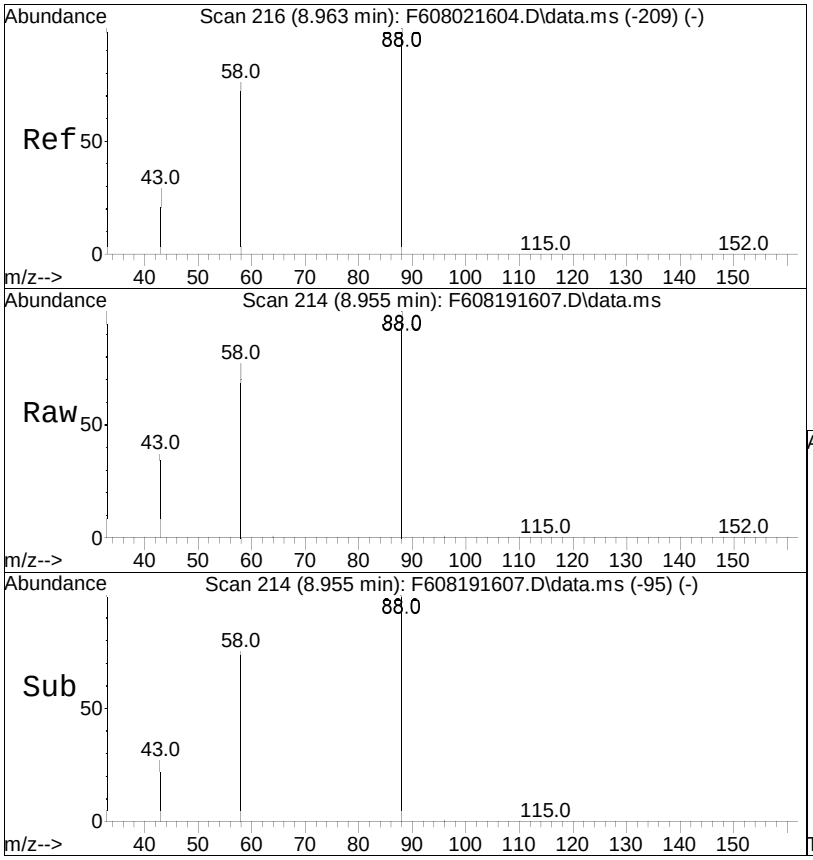
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191607.D
Acq On : 19 Aug 2016 6:45 pm
Operator : BNA6:WR
Sample : WG924185-3
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 23 12:57:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

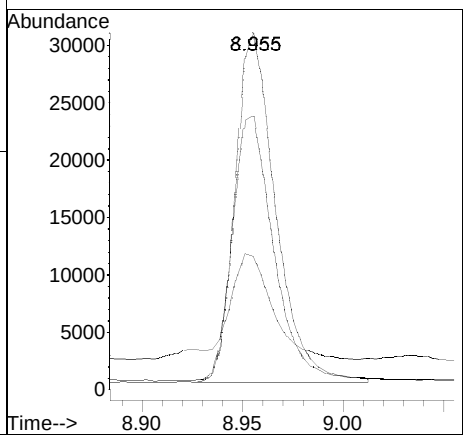




#2
1,4-dioxane
Concen: 547.16 ng/mL
RT: 8.955 min Scan# 214
Delta R.T. -0.016 min
Lab File: F608191607.D
Acq: 19 Aug 2016 6:45 pm

Tgt Ion: 88 Resp: 41939

Ion	Ratio	Lower	Upper
88	100		
58	78.2	62.1	93.1
43	31.6	24.4	36.6



Matrix Spike / Matrix Spike Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191620.D
Acq On : 20 Aug 2016 4:26 am
Operator : BNA6:WR
Sample : WG924185-4
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 23 12:58:02 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.882	64	18255	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.422	152	183213	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.882	64	18255	115.126	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.03%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.955	88	28872	551.821	ng/mL	99

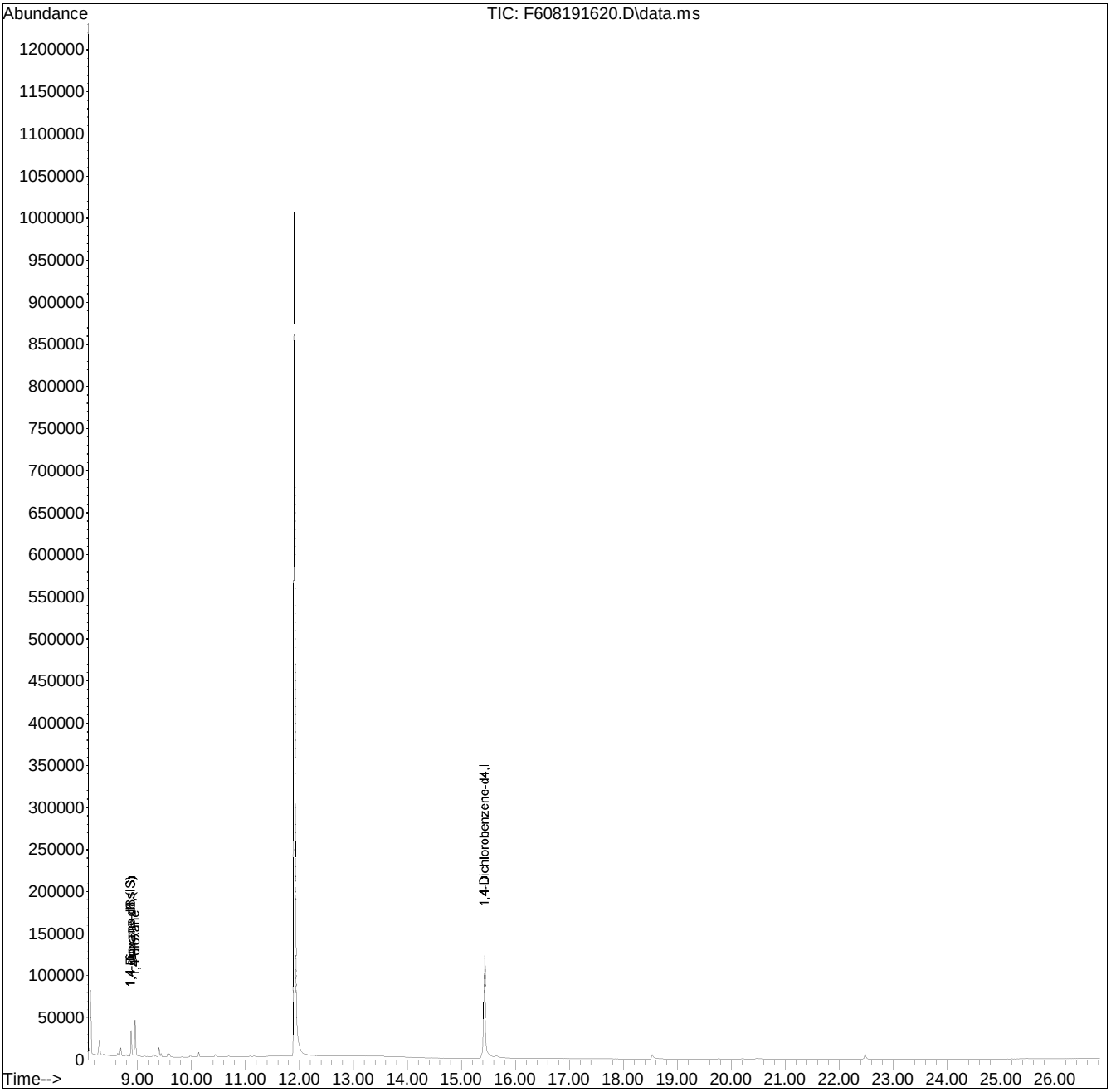
(#) = qualifier out of range (m) = manual integration (+) = signals summed

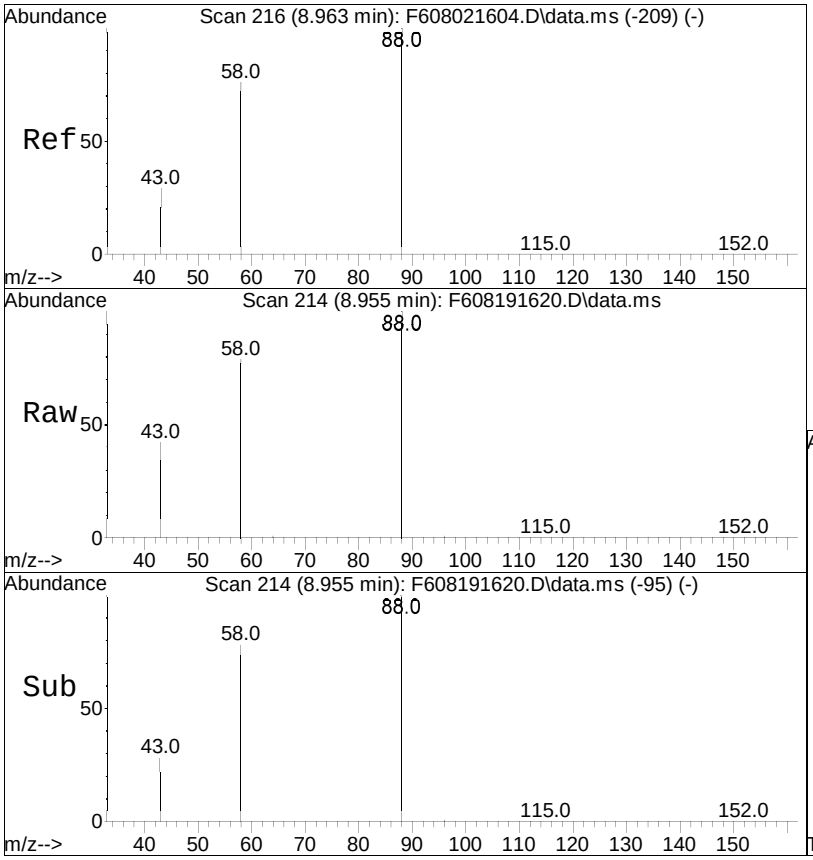
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191620.D
Acq On : 20 Aug 2016 4:26 am
Operator : BNA6:WR
Sample : WG924185-4
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 23 12:58:02 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

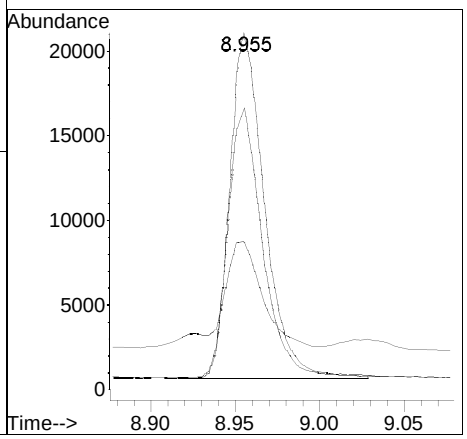




#2
1,4-dioxane
Concen: 551.82 ng/mL
RT: 8.955 min Scan# 214
Delta R.T. -0.016 min
Lab File: F608191620.D
Acq: 20 Aug 2016 4:26 am

Tgt Ion: 88 Resp: 28872

Ion	Ratio	Lower	Upper
88	100		
58	77.6	62.1	93.1
43	31.8	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191621.D
Acq On : 20 Aug 2016 5:09 am
Operator : BNA6:WR
Sample : WG924185-5
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 23 12:58:04 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.870	64	17106	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	172350	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.870	64	17106	114.679	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 22.94%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.943	88	26962	549.929	ng/mL	99

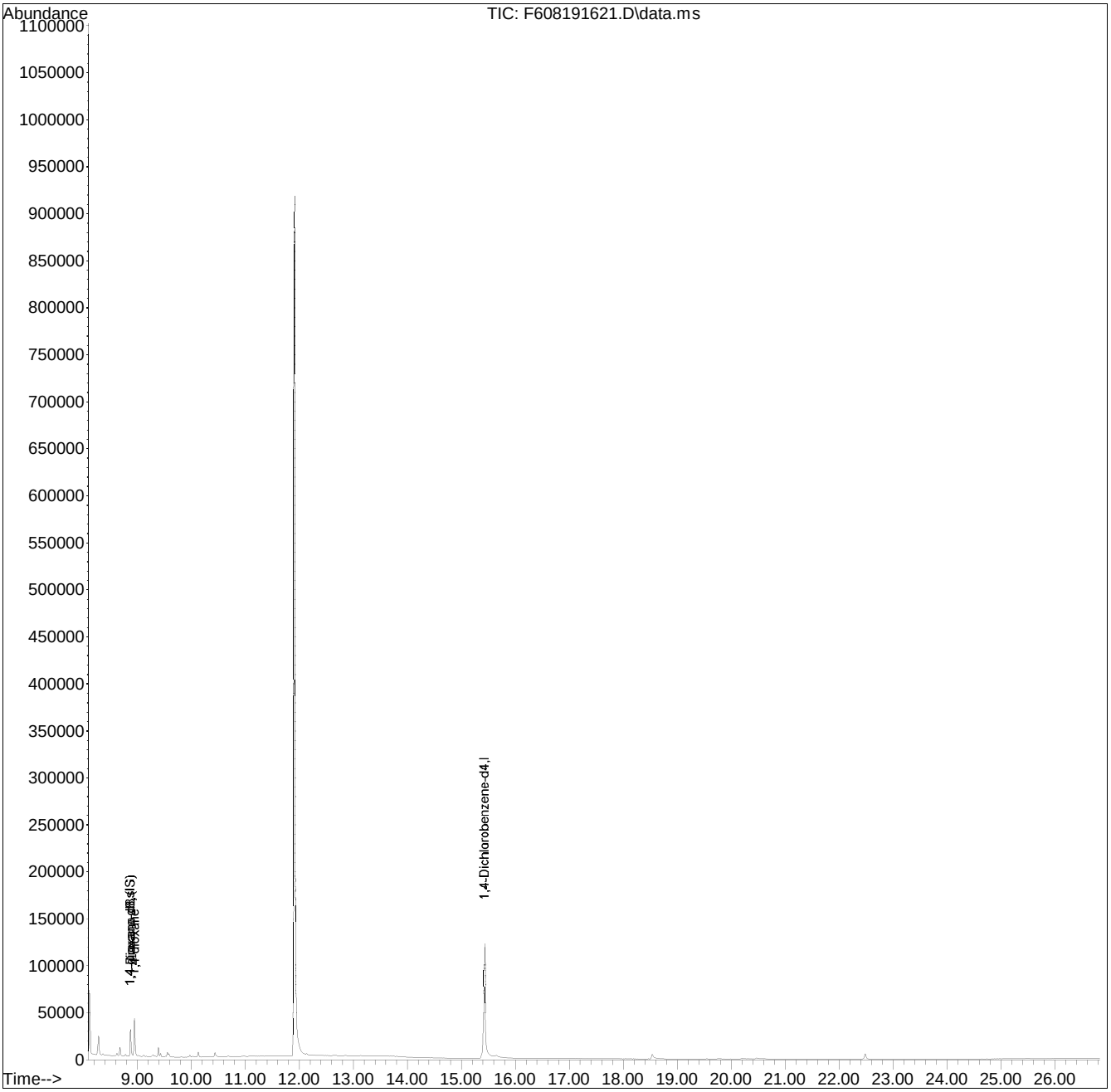
(#) = qualifier out of range (m) = manual integration (+) = signals summed

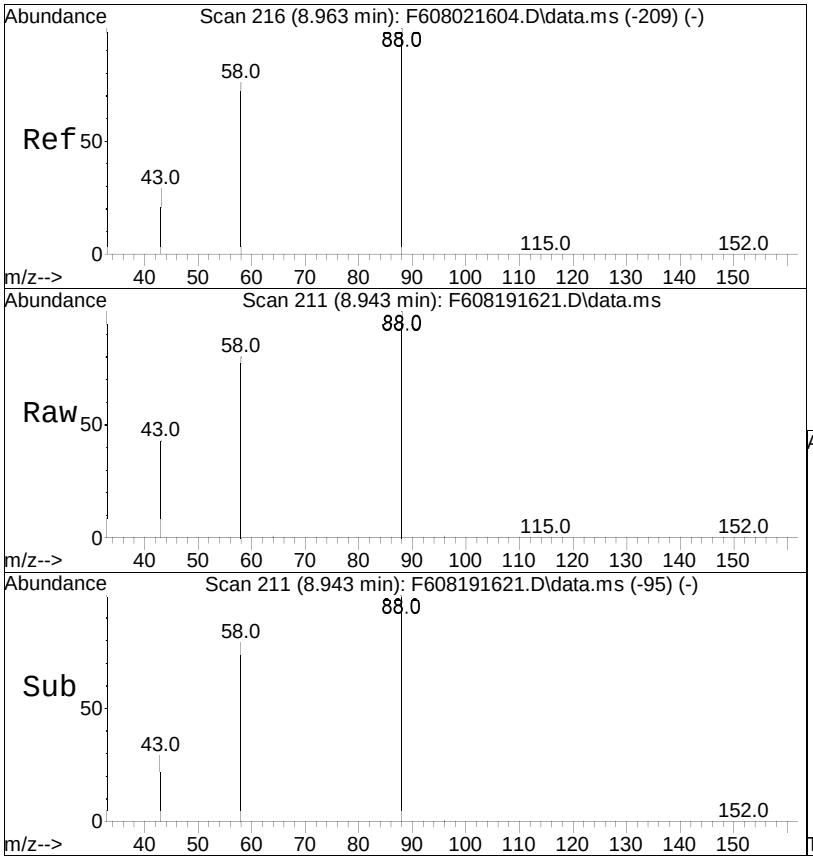
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug19\
Data File : F608191621.D
Acq On : 20 Aug 2016 5:09 am
Operator : BNA6:WR
Sample : WG924185-5
Misc : WG924327,WG924185,ICAL12751
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 23 12:58:04 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug19\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

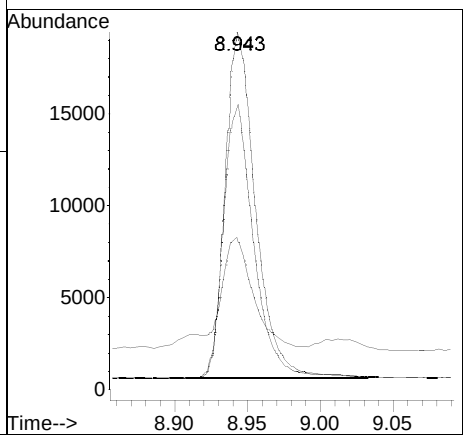




#2
1,4-dioxane
Concen: 549.93 ng/mL
RT: 8.943 min Scan# 211
Delta R.T. -0.028 min
Lab File: F608191621.D
Acq: 20 Aug 2016 5:09 am

Tgt Ion: 88 Resp: 26962

Ion	Ratio	Lower	Upper
88	100		
58	78.0	62.1	93.1
43	31.6	24.4	36.6



Sample Preparation

ORGANIC ELN REPORT

Workgroup: WG924185

Prep Method: EPA 3510C
Solvent Type: DCM **Lot #:** DP875
Surrogate Type: 1,4-DIOXANE **Lot #:** MSAK13
Spike Type: 1,4-DIOXANE **Lot #:** MSAK04
Spike Verify by: AL
Lims Spikelot: 14DIOXANE

Additional Reagents/Stds

Glass Wool	11414001
Na2SO4	0000131774

Conc.Method: S-EVAP
Solvent Type: DCM
Lot #: DP875

Additional Reagents/Stds

Cleanup 1

Cleanup Method 1:
Cleanup Method 2:
Solvent Type: **Lot #:**

Additional Reagents/Stds

Sample/ Type	Extraction: Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Concentration: Conc Date	Analyst	Final Vol ml	Conc Unit
WG924185-1 BLANK	08/19/16 10:30	Sarah Barr	1000	7	1		08/19/16 12:15	Amanda Luiz	10	SEVAP 5
	Shares QC's with WG924184 8/19/16 AL									
WG924185-2 LCS	08/19/16 10:30	Sarah Barr	1000	7	1	1	08/19/16 12:15	Amanda Luiz	10	SEVAP 5
WG924185-3 LCSD	08/19/16 10:30	Sarah Barr	1000	7	1	1	08/19/16 12:15	Amanda Luiz	10	SEVAP 5
WG924185-4 MS	08/19/16 10:30	Sarah Barr	520	7	.5	.5	08/19/16 12:15	Amanda Luiz	5	SEVAP 5
WG924185-5 MSD	08/19/16 10:30	Sarah Barr	510	7	.5	.5	08/19/16 12:15	Amanda Luiz	5	SEVAP 5
L1625725-01 WATER	08/19/16 10:30	Sarah Barr	460	7	.5		08/19/16 12:15	Amanda Luiz	5	SEVAP 5
L1625725-02 WATER	08/19/16 10:30	Sarah Barr	460	7	.5		08/19/16 12:15	Amanda Luiz	5	SEVAP 5

Reported: 28-SEP-16 04:28 PM

ORGANIC ELN REPORT

Workgroup: WG924185

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol **ml**	Ph	Surr Amt **ml**	Spike Amt **ml**	Conc Date	Analyst	Final Vol **ml**	Conc Unit
L1625725-03 WATER	08/19/16 10:30	Sarah Barr	470	7	.5		08/19/16 12:15	Amanda Luiz	5	SEVAP 5
L1625725-04 WATER	08/19/16 10:30	Sarah Barr	530	7	.5		08/19/16 12:15	Amanda Luiz	5	SEVAP 5
L1625725-05 WATER	08/19/16 10:30	Sarah Barr	480	7	.5		08/19/16 12:15	Amanda Luiz	5	SEVAP 5
L1625725-06 WATER	08/19/16 10:30	Sarah Barr	450	7	.5		08/19/16 12:15	Amanda Luiz	5	SEVAP 5
L1625725-07 WATER	08/19/16 10:30	Sarah Barr	470	7	.5		08/19/16 12:15	Amanda Luiz	5	SEVAP 5
L1625725-08 WATER	08/19/16 10:30	Sarah Barr	510	7	.5		08/19/16 12:15	Amanda Luiz	5	SEVAP 5
L1625725-09 WATER	08/19/16 10:30	Sarah Barr	500	7	.5		08/19/16 12:15	Amanda Luiz	5	SEVAP 5
L1625725-10 WATER	08/19/16 10:30	Sarah Barr	450	7	.5		08/19/16 12:15	Amanda Luiz	5	SEVAP 5
L1625725-11 WATER	08/19/16 10:30	Sarah Barr	510	7	1.0		08/19/16 12:15	Amanda Luiz	5	SEVAP 5
	Sample double spiked with surrogate 8/19/16 AL									
L1625725-12 WATER	08/19/16 10:30	Sarah Barr	500	7	.5		08/19/16 12:15	Amanda Luiz	5	SEVAP 5

Reported: 28-SEP-16 04:28 PM

ORGANIC ELN REPORT

Workgroup: WG924185

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol **ml**	Ph	Surr Amt **ml**	Spike Amt **ml**	Conc Date	Analyst	Final Vol **ml**	Conc Unit
L1625725-13 WATER	08/19/16 10:30	Sarah Barr	500	7	.5		08/19/16 12:15	Amanda Luiz	5	SEVAP 5
L1625725-14 WATER	08/19/16 10:30	Sarah Barr	510	7	.5		08/19/16 12:15	Amanda Luiz	5	SEVAP 5

Reported: 28-SEP-16 04:28 PM

Alpha Report

ANALYTICAL REPORT

Lab Number:	L1625725
Client:	Cornerstone/Cadena Co. joint account 1099 Highland Drive, Suite E Ann Arbor, MI 48108
ATTN:	Jim Tomalia
Phone:	() -
Project Name:	RINGWOOD MINE/ LANDFILL
Project Number:	140802-015
Report Date:	09/29/16

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: RINGWOOD MINE/ LANDFILL
Project Number: 140802-015

Lab Number: L1625725
Report Date: 09/29/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1625725-01	FB-1-081616	WATER	RINGWOOD, NJ	08/16/16 09:00	08/17/16
L1625725-02	OB-17-081616	WATER	RINGWOOD, NJ	08/16/16 09:50	08/17/16
L1625725-03	OB-18-081616	WATER	RINGWOOD, NJ	08/16/16 10:10	08/17/16
L1625725-04	OB-10-081616	WATER	RINGWOOD, NJ	08/16/16 10:00	08/17/16
L1625725-05	OB-16-081616	WATER	RINGWOOD, NJ	08/16/16 11:00	08/17/16
L1625725-06	OB-28-081616	WATER	RINGWOOD, NJ	08/16/16 12:05	08/17/16
L1625725-07	DUP-1-081616	WATER	RINGWOOD, NJ	08/16/16 12:00	08/17/16
L1625725-08	OB-29-081616	WATER	RINGWOOD, NJ	08/16/16 11:40	08/17/16
L1625725-09	OB-13-081616	WATER	RINGWOOD, NJ	08/16/16 14:00	08/17/16
L1625725-10	OB-14A-081616	WATER	RINGWOOD, NJ	08/16/16 14:30	08/17/16
L1625725-11	OB-14B-081616	WATER	RINGWOOD, NJ	08/16/16 14:35	08/17/16
L1625725-12	OB-24-081616	WATER	RINGWOOD, NJ	08/16/16 15:40	08/17/16
L1625725-13	RW-16-081616	WATER	RINGWOOD, NJ	08/16/16 15:45	08/17/16
L1625725-14	OB-03-081616	WATER	RINGWOOD, NJ	08/16/16 16:10	08/17/16

Project Name: RINGWOOD MINE/ LANDFILL
Project Number: 140802-015
Lab Number: L1625725
Report Date: 09/29/16

NJ DEP Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	YES
1a	Were the method specified handling, preservation, and holding time requirements met?	YES
1b	EPH Method: Was the EPH Method conducted without significant modifications (see Section 11.3 of respective DKQ methods)?	N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	YES
3	Were all samples received at an appropriate temperature (4 ± 2° C)?	YES
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	YES
5a	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	YES
5b	Were these reporting limits met?	YES
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	NO
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	NO

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1a or #1b is "No", the data package does not meet the requirements for "Data of Known Quality".

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725
Project Number: 140802-015 **Report Date:** 09/29/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725
Project Number: 140802-015 **Report Date:** 09/29/16

Case Narrative (continued)

Report Reissue

This report replaces the report issued on August 25, 2016. The results for sample L1625725-11 have been revised due to a lab spike and calculation error.

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

DKQP Related Narratives

In reference to question 6:

At the client's request, all submitted samples were not analyzed for the full DKQP list of constituents identified in the method specific analyte list presented in the DKQP documents.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth Porta

Title: Technical Director/Representative Date: 09/29/16

ORGANICS

SEMIVOLATILES

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725

Project Number: 140802-015 **Report Date:** 09/29/16

SAMPLE RESULTS

Lab ID:	L1625725-01	Date Collected:	08/16/16 09:00
Client ID:	FB-1-081616	Date Received:	08/17/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/19/16 10:30
Analytical Date:	08/19/16 20:14		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.163	0.0815	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	26		15-110

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725

Project Number: 140802-015 **Report Date:** 09/29/16

SAMPLE RESULTS

Lab ID:	L1625725-02	Date Collected:	08/16/16 09:50
Client ID:	OB-17-081616	Date Received:	08/17/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/19/16 10:30
Analytical Date:	08/19/16 20:59		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	17.5		ug/l	0.163	0.0815	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725

Project Number: 140802-015 **Report Date:** 09/29/16

SAMPLE RESULTS

Lab ID:	L1625725-03	Date Collected:	08/16/16 10:10
Client ID:	OB-18-081616	Date Received:	08/17/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/19/16 10:30
Analytical Date:	08/19/16 21:43		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.160	0.0798	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	23		15-110

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725

Project Number: 140802-015 **Report Date:** 09/29/16

SAMPLE RESULTS

Lab ID:	L1625725-04	Date Collected:	08/16/16 10:00
Client ID:	OB-10-081616	Date Received:	08/17/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/19/16 10:30
Analytical Date:	08/19/16 22:27		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.172		ug/l	0.142	0.0708	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725

Project Number: 140802-015 **Report Date:** 09/29/16

SAMPLE RESULTS

Lab ID:	L1625725-05	Date Collected:	08/16/16 11:00
Client ID:	OB-16-081616	Date Received:	08/17/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/19/16 10:30
Analytical Date:	08/19/16 23:11		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.156	0.0781	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725

Project Number: 140802-015 **Report Date:** 09/29/16

SAMPLE RESULTS

Lab ID:	L1625725-06	Date Collected:	08/16/16 12:05
Client ID:	OB-28-081616	Date Received:	08/17/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/19/16 10:30
Analytical Date:	08/19/16 23:55		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.167	0.0833	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725

Project Number: 140802-015 **Report Date:** 09/29/16

SAMPLE RESULTS

Lab ID:	L1625725-07	Date Collected:	08/16/16 12:00
Client ID:	DUP-1-081616	Date Received:	08/17/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/19/16 10:30
Analytical Date:	08/20/16 00:39		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.160	0.0798	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	26		15-110

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725

Project Number: 140802-015 **Report Date:** 09/29/16

SAMPLE RESULTS

Lab ID:	L1625725-08	Date Collected:	08/16/16 11:40
Client ID:	OB-29-081616	Date Received:	08/17/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/19/16 10:30
Analytical Date:	08/20/16 01:23		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.156		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725

Project Number: 140802-015 **Report Date:** 09/29/16

SAMPLE RESULTS

Lab ID:	L1625725-09	Date Collected:	08/16/16 14:00
Client ID:	OB-13-081616	Date Received:	08/17/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/19/16 10:30
Analytical Date:	08/20/16 03:42		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.150	0.0750	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725

Project Number: 140802-015 **Report Date:** 09/29/16

SAMPLE RESULTS

Lab ID:	L1625725-10	Date Collected:	08/16/16 14:30
Client ID:	OB-14A-081616	Date Received:	08/17/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/19/16 10:30
Analytical Date:	08/20/16 05:53		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.167	0.0833	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725

Project Number: 140802-015 **Report Date:** 09/29/16

SAMPLE RESULTS

Lab ID:	L1625725-11	Date Collected:	08/16/16 14:35
Client ID:	OB-14B-081616	Date Received:	08/17/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/19/16 10:30
Analytical Date:	08/20/16 06:36		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.282		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	27		15-110

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725

Project Number: 140802-015 **Report Date:** 09/29/16

SAMPLE RESULTS

Lab ID:	L1625725-12	Date Collected:	08/16/16 15:40
Client ID:	OB-24-081616	Date Received:	08/17/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/19/16 10:30
Analytical Date:	08/20/16 07:20		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.150	0.0750	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725

Project Number: 140802-015 **Report Date:** 09/29/16

SAMPLE RESULTS

Lab ID:	L1625725-13	Date Collected:	08/16/16 15:45
Client ID:	RW-16-081616	Date Received:	08/17/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/19/16 10:30
Analytical Date:	08/20/16 08:04		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.150	0.0750	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	27		15-110

Project Name: RINGWOOD MINE/ LANDFILL **Lab Number:** L1625725

Project Number: 140802-015 **Report Date:** 09/29/16

SAMPLE RESULTS

Lab ID:	L1625725-14	Date Collected:	08/16/16 16:10
Client ID:	OB-03-081616	Date Received:	08/17/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/19/16 10:30
Analytical Date:	08/20/16 08:47		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: RINGWOOD MINE/ LANDFILL
Project Number: 140802-015
Lab Number: L1625725
Report Date: 09/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 08/19/16 17:15
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 08/19/16 10:30

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01-14 Batch: WG924185-1					
1,4-Dioxane	ND		ug/l	0.150	0.0750

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	33		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: RINGWOOD MINE/ LANDFILL

Project Number: 140802-015

Lab Number: L1625725

Report Date: 09/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab	Associated sample(s): 01-14		Batch: WG924185-2 WG924185-3					
1,4-Dioxane	110		109		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	35		33		15-110

Matrix Spike Analysis

Batch Quality Control

Project Name: RINGWOOD MINE/ LANDFILL

Project Number: 140802-015

Lab Number: L1625725

Report Date: 09/29/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 01-14 QC Batch ID: WG924185-4 WG924185-5 QC Sample: L1625725-09 Client ID: OB-13-081616												
1,4-Dioxane	ND	4.81	5.30	110		5.39	110		40-140	2		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,4-Dioxane-d8	23		23		15-110

Project Name: RINGWOOD MINE/ LANDFILL
Project Number: 140802-015

Lab Number: L1625725
Report Date: 09/29/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information Custody Seal

Cooler	
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1625725-01A	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-01B	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-02A	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-02B	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-03A	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-03B	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-04A	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-04B	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-05A	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-05B	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-06A	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-06B	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-07A	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-07B	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-08A	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-08B	Amber 500ml unpreserved	A	7	5.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-09A	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-09A1	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-09A2	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-09B	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-09B1	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-09B2	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-10A	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-10B	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-11A	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-11B	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-12A	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-12B	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)

*Values in parentheses indicate holding time in days

Project Name: RINGWOOD MINE/ LANDFILL
Project Number: 140802-015

Lab Number: L1625725
Report Date: 09/29/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1625725-13A	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-13B	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-14A	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625725-14B	Amber 500ml unpreserved	B	7	3.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)

*Values in parentheses indicate holding time in days

Project Name:	RINGWOOD MINE/ LANDFILL	**Lab Number:**	L1625725
Project Number:	140802-015	**Report Date:**	09/29/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: DU Report with 'J' Qualifiers

Project Name:	RINGWOOD MINE/ LANDFILL	**Lab Number:**	L1625725
Project Number:	140802-015	**Report Date:**	09/29/16

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	RINGWOOD MINE/ LANDFILL	**Lab Number:**	L1625725
Project Number:	140802-015	**Report Date:**	09/29/16

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: ***EPA 3050B***

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW JERSEY CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 8/18/16

ALPHA Job # L1625725

Client Information
Client: Cornerstone
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845-695-0200
Fax:
Email:

Project Information
Project Name: Ringwood Mine / Landfill
Project Location: Ringwood, NJ
Project #: 140802-015
(Use Project name as Project #)
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time
Standard
Rush (only if pre approved)
Due Date:
# of Days:

Deliverables
- NJ Full / Reduced
- EQuIS (1 File)
- EQuIS (4 File)
- Other

Regulatory Requirement
- SRS Residential/Non Residential
- SRS Impact to Groundwater
- NJ Ground Water Quality Standards
- NJ IGW SPLP Leachate Criteria
- Other

Billing Information
- Same as Client Info

PO #

Site Information
Is this site impacted by Petroleum? Yes

Petroleum Product:

These samples have been previously analyzed by Alpha

For EPH, selection is REQUIRED:
- Category 1
- Category 2

For VOC, selection is REQUIRED:
- 1,4-Dioxane
- 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
- Done
- Lab to do

Preservation
- Lab to do

(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2-14 1,4-DIOXANE SIM-PFB	Total Bottle	Sample Specific Comments
~~21625~~ .01	FB-1-081616	08/16/16	0900	BW	JG	X		
25725 .02	OB-17-081616	08/16/16	0950	GW	JG	X		
.03	OB-18-081616	08/16/16	1010	GW	DW	X		
.04	OB-10-081616	08/16/16	1000	GW	RL	X		
.05	OB-16-081616	08/16/16	1100	GW	JG	X		
.06	OB-28-081616	08/16/16	1205	GW	DW	X		
.07	DUP-1-081616	08/16/16	1200	GW	DW	X		
.08	OB-29-081616	08/16/16	1140	GW	RL	X		
.09	OB-13-081616	08/16/16	1400	GW	RL	X		
.09	OB-13-081616-MS	08/16/16	1400	GW	RL	X		

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/17/16 0904	AAL-8	8/17/16 09:04
AAL-8	8/17/16 1800		8-17-16 1800
	8-17-16 2245		8/17/16 2245
	8/18/16 0235	Al Williams	8-18-16 02:35
Al Williams	8-18-16 03:35		8/18/16 03:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

NEW JERSEY CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page: 2 of 2

Date Rec'd in Lab: 8/18/16

ALPHA Job #: L1625725

Client Information
Client: Cornerstone
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845-695-0200
Fax:
Email:

Project Information
Project Name: Ringwood Mine / Landfill
Project Location: Ringwood, NJ
Project #: 140802J-015
(Use Project name as Project #)
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time
Standard
Rush (only if pre approved)
Due Date:
# of Days:

Deliverables
- NJ Full / Reduced
- EQuIS (1 File)
- EQuIS (4 File)
- Other

Regulatory Requirement
- SRS Residential/Non Residential
- SRS Impact to Groundwater
- NJ Ground Water Quality Standards
- NJ IGW SPLP Leachate Criteria
- Other

Billing Information
- Same as Client Info

PO #

Site Information
Is this site impacted by Petroleum? Yes

Petroleum Product:

These samples have been previously analyzed by Alpha

For EPH, selection is REQUIRED:
- Category 1
- Category 2

For VOC, selection is REQUIRED:
- 1,4-Dioxane
- 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
- Done
- Lab to do

Preservation
- Lab to do

(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2-14-DIOXANESIM-PPB	Total Bottle	Sample Specific Comments
25725.09	OB-13-081616-MSD	08/16/16	1400	GW	RL	X		
.10	OB-14A-081616	08/16/16	1430	GW	JG	X		
.11	OB-14B-081616	08/16/16	1435	GW	DW	X		
.12	OB-24-081616	08/16/16	1540	GW	JG	X		
.13	RW-16-081616	08/16/16	1545	GW	DW	X		
.14	OB-03-081616	08/16/16	1610	GW	RL	X		

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
[illegible]	8/17/16 09:04	[illegible]	8/17/16 09:04
[illegible]	8/17/16 1800	Tom Tokin	8-17-16 1800
Tom Tokin	8-17-16 2245	[illegible]	8/18/16 2245
[illegible]	8/18/16 0235	AE Williams	8/18/16 02:35
AE Williams	8/18/16 03:35	[illegible]	8/18/16 03:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONSTITUTIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Alpha
Summary Forms

Organic Summary Forms

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab ID	: L1625725-01	**Date Collected**	: 08/16/16 09:00
Client ID	: FB-1-081616	**Date Received**	: 08/17/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/19/16 20:14
Sample Matrix	: WATER	**Date Extracted**	: 08/19/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608191609	**Analyst**	: WR
Sample Amount	: 460 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.163	0.0815	U

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab ID	: L1625725-02	**Date Collected**	: 08/16/16 09:50
Client ID	: OB-17-081616	**Date Received**	: 08/17/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/19/16 20:59
Sample Matrix	: WATER	**Date Extracted**	: 08/19/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608191610	**Analyst**	: WR
Sample Amount	: 460 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	17.5	0.163	0.0815	

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab ID	: L1625725-03	**Date Collected**	: 08/16/16 10:10
Client ID	: OB-18-081616	**Date Received**	: 08/17/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/19/16 21:43
Sample Matrix	: WATER	**Date Extracted**	: 08/19/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608191611	**Analyst**	: WR
Sample Amount	: 470 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.160	0.0798	U

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab ID	: L1625725-04	**Date Collected**	: 08/16/16 10:00
Client ID	: OB-10-081616	**Date Received**	: 08/17/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/19/16 22:27
Sample Matrix	: WATER	**Date Extracted**	: 08/19/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608191612	**Analyst**	: WR
Sample Amount	: 530 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.172	0.142	0.0708	

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab ID	: L1625725-05	**Date Collected**	: 08/16/16 11:00
Client ID	: OB-16-081616	**Date Received**	: 08/17/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/19/16 23:11
Sample Matrix	: WATER	**Date Extracted**	: 08/19/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608191613	**Analyst**	: WR
Sample Amount	: 480 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.156	0.0781	U

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab ID	: L1625725-06	**Date Collected**	: 08/16/16 12:05
Client ID	: OB-28-081616	**Date Received**	: 08/17/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/19/16 23:55
Sample Matrix	: WATER	**Date Extracted**	: 08/19/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608191614	**Analyst**	: WR
Sample Amount	: 450 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.167	0.0833	U

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab ID	: L1625725-07	**Date Collected**	: 08/16/16 12:00
Client ID	: DUP-1-081616	**Date Received**	: 08/17/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/20/16 00:39
Sample Matrix	: WATER	**Date Extracted**	: 08/19/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608191615	**Analyst**	: WR
Sample Amount	: 470 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.160	0.0798	U

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab ID	: L1625725-08	**Date Collected**	: 08/16/16 11:40
Client ID	: OB-29-081616	**Date Received**	: 08/17/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/20/16 01:23
Sample Matrix	: WATER	**Date Extracted**	: 08/19/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608191616	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.156	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab ID	: L1625725-09	**Date Collected**	: 08/16/16 14:00
Client ID	: OB-13-081616	**Date Received**	: 08/17/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/20/16 03:42
Sample Matrix	: WATER	**Date Extracted**	: 08/19/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608191619	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab ID	: L1625725-10	**Date Collected**	: 08/16/16 14:30
Client ID	: OB-14A-081616	**Date Received**	: 08/17/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/20/16 05:53
Sample Matrix	: WATER	**Date Extracted**	: 08/19/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608191622	**Analyst**	: WR
Sample Amount	: 450 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.167	0.0833	U

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab ID	: L1625725-11	**Date Collected**	: 08/16/16 14:35
Client ID	: OB-14B-081616	**Date Received**	: 08/17/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/20/16 06:36
Sample Matrix	: WATER	**Date Extracted**	: 08/19/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608191623	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.282	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab ID	: L1625725-12	**Date Collected**	: 08/16/16 15:40
Client ID	: OB-24-081616	**Date Received**	: 08/17/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/20/16 07:20
Sample Matrix	: WATER	**Date Extracted**	: 08/19/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608191624	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab ID	: L1625725-13	**Date Collected**	: 08/16/16 15:45
Client ID	: RW-16-081616	**Date Received**	: 08/17/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/20/16 08:04
Sample Matrix	: WATER	**Date Extracted**	: 08/19/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608191625	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab ID	: L1625725-14	**Date Collected**	: 08/16/16 16:10
Client ID	: OB-03-081616	**Date Received**	: 08/17/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/20/16 08:47
Sample Matrix	: WATER	**Date Extracted**	: 08/19/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608191626	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.147	0.0735	U

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab ID	: WG924185-1	**Date Collected**	: NA
Client ID	: WG924185-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/19/16 17:15
Sample Matrix	: WATER	**Date Extracted**	: 08/19/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608191605	**Analyst**	: WR
Sample Amount	: 1000 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 10000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 2
Surrogate Recovery
SEMIVOLATILES

Client: Cornerstone/Cadena Co. joint account
Project Name: RINGWOOD MINE/ LANDFILL

Lab Number: L1625725
Project Number: 140802-015
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 ()	S2 ()	S3 ()	S4 ()	S5 ()	S6 ()	TOT OUT
DUP-1-081616 (L1625725-07)	26	--	--	--	--	--	0
FB-1-081616 (L1625725-01)	26	--	--	--	--	--	0
WG924185-3LCSD	33	--	--	--	--	--	0
WG924185-2LCS	35	--	--	--	--	--	0
WG924185-1BLANK	33	--	--	--	--	--	0
OB-13-081616MS	23	--	--	--	--	--	0
OB-13-081616MSD	23	--	--	--	--	--	0
OB-03-081616 (L1625725-14)	25	--	--	--	--	--	0
OB-10-081616 (L1625725-04)	24	--	--	--	--	--	0
OB-13-081616 (L1625725-09)	25	--	--	--	--	--	0
OB-14A-081616 (L1625725-10)	25	--	--	--	--	--	0
OB-14B-081616 (L1625725-11)	27	--	--	--	--	--	0
OB-16-081616 (L1625725-05)	24	--	--	--	--	--	0
OB-17-081616 (L1625725-02)	25	--	--	--	--	--	0
OB-18-081616 (L1625725-03)	23	--	--	--	--	--	0
OB-24-081616 (L1625725-12)	25	--	--	--	--	--	0
OB-28-081616 (L1625725-06)	25	--	--	--	--	--	0
OB-29-081616 (L1625725-08)	24	--	--	--	--	--	0
RW-16-081616 (L1625725-13)	27	--	--	--	--	--	0

	QC LIMITS
S1 = 1,4-DIOXANE-D8	(15-110)

*** Values outside of QC limits**

FORM II A2-14-DIOXANESIM-PPB

Laboratory Control Sample
Form 3

Client	: Cornerstone/Cadena Co. joint accoun		**Lab Number**	: L1625725	
Project Name	: RINGWOOD MINE/ LANDFILL		**Project Number**	: 140802-015	
Matrix	: WATER				
LCS Sample ID	: WG924185-2	**Analysis Date :** 08/19/16 18:00	**File ID**	: F608191606	
LCSD Sample ID	: WG924185-3	**Analysis Date :** 08/19/16 18:45	**File ID**	: F608191607	

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (ug/l)**	**Found (ug/l)**	**%R**	**True (ug/l)**	**Found (ug/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
1,4-Dioxane	5	5.52	110	5	5.47	109	1	40-140	30

Matrix Spike
Form 3

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Client Sample ID	: OB-13-081616	**Matrix**	: WATER
Lab Sample ID	: L1625725-09	**Analysis Date**	: 08/20/16 03:42
Matrix Spike	: WG924185-4	**MS Analysis Date**	: 08/20/16 04:26
Matrix Spike Dup	: WG924185-5	**MSD Analysis Date**	: 08/20/16 05:09

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (ug/l)	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	RPD	Recovery Limits	RPD Limit
1,4-Dioxane	ND	4.81	5.30	110	4.9	5.39	110	2	40-140	30

Method Blank Summary
Form 4

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Lab Sample ID	: WG924185-1	**Lab File ID**	: F608191605
Instrument ID	: BNA6	**Extraction Date**	: 08/19/16
Matrix	: WATER	**Analysis Date**	: 08/19/16 17:15
Level	: LOW		

Client Sample No.	Lab Sample ID	Analysis Date
WG924185-2LCS	WG924185-2	08/19/16 18:00
WG924185-3LCSD	WG924185-3	08/19/16 18:45
FB-1-081616	L1625725-01	08/19/16 20:14
OB-17-081616	L1625725-02	08/19/16 20:59
OB-18-081616	L1625725-03	08/19/16 21:43
OB-10-081616	L1625725-04	08/19/16 22:27
OB-16-081616	L1625725-05	08/19/16 23:11
OB-28-081616	L1625725-06	08/19/16 23:55
DUP-1-081616	L1625725-07	08/20/16 00:39
OB-29-081616	L1625725-08	08/20/16 01:23
OB-13-081616	L1625725-09	08/20/16 03:42
OB-13-081616MS	WG924185-4	08/20/16 04:26
OB-13-081616MSD	WG924185-5	08/20/16 05:09
OB-14A-081616	L1625725-10	08/20/16 05:53
OB-14B-081616	L1625725-11	08/20/16 06:36
OB-24-081616	L1625725-12	08/20/16 07:20
RW-16-081616	L1625725-13	08/20/16 08:04
OB-03-081616	L1625725-14	08/20/16 08:47

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/10/16 13:25
Tune Standard	: R891220-9	**Tune File ID**	: F608101603_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	28.1
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	38.3
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.8
275	10.0 - 60.0% of Base Peak	28.4
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	15.6
442	Base Peak, or >50% of mass 198	94.3
443	15.0 - 24.0% of mass 442	18.3 (19.4)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD 10	R891220-2	F608101604	08/10/16 14:22
STD 50	R891220-3	F608101605	08/10/16 15:07
STD 100	R891220-4	F608101606	08/10/16 15:51
STD 500	R891220-5	F608101607	08/10/16 16:36
STD 1000	R891220-1	F608101608	08/10/16 17:21
STD 5000	R891220-6	F608101609	08/10/16 18:06
STD 10000	R891220-7	F608101610	08/10/16 18:51
ICV Quant Report STD 1000	R891220-8	F608101611	08/10/16 19:36

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/19/16 15:33
Tune Standard	: WG924327-1	**Tune File ID**	: F608191603_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	27.3
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.1 (.5)1
127	10.0 - 80.0% of Base Peak	37.4
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	7.1
275	10.0 - 60.0% of Base Peak	28.8
365	Greater than 1.0% of mass 198	2.6
441	Present, but less than 24% of mass 442	15.8
442	Base Peak, or >50% of mass 198	91.6
443	15.0 - 24.0% of mass 442	17.3 (18.9)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG924327-3CCAL	WG924327-3	F608191604	08/19/16 16:30
WG924185-1BLANK	WG924185-1	F608191605	08/19/16 17:15
WG924185-2LCS	WG924185-2	F608191606	08/19/16 18:00
WG924185-3LCSD	WG924185-3	F608191607	08/19/16 18:45
FB-1-081616	L1625725-01	F608191609	08/19/16 20:14
OB-17-081616	L1625725-02	F608191610	08/19/16 20:59
OB-18-081616	L1625725-03	F608191611	08/19/16 21:43
OB-10-081616	L1625725-04	F608191612	08/19/16 22:27
OB-16-081616	L1625725-05	F608191613	08/19/16 23:11
OB-28-081616	L1625725-06	F608191614	08/19/16 23:55
DUP-1-081616	L1625725-07	F608191615	08/20/16 00:39
OB-29-081616	L1625725-08	F608191616	08/20/16 01:23

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/20/16 02:03
Tune Standard	: WG924327-4	**Tune File ID**	: F608191617_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	27.7
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	37.6
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.7
275	10.0 - 60.0% of Base Peak	29
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	15.6
442	Base Peak, or >50% of mass 198	99.9
443	15.0 - 24.0% of mass 442	19.6 (19.6)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG924327-6CCAL	WG924327-6	F608191618	08/20/16 02:59
OB-13-081616	L1625725-09	F608191619	08/20/16 03:42
WG924185-4MS	WG924185-4	F608191620	08/20/16 04:26
WG924185-5MSD	WG924185-5	F608191621	08/20/16 05:09
OB-14A-081616	L1625725-10	F608191622	08/20/16 05:53
OB-14B-081616	L1625725-11	F608191623	08/20/16 06:36
OB-24-081616	L1625725-12	F608191624	08/20/16 07:20
RW-16-081616	L1625725-13	F608191625	08/20/16 08:04
OB-03-081616	L1625725-14	F608191626	08/20/16 08:47

Initial Calibration Summary
Form 6

Client	**: Cornerstone/Cadena Co. joint accoun**	**Lab Number**	**: L1625725**
Project Name	**: RINGWOOD MINE/ LANDFILL**	**Project Number**	**: 140802-015**
Instrument ID	**: BNA6**	**Ical Ref**	**: ICAL12751**
Calibration dates	**: 08/10/16 14:22 08/10/16 18:51**		

Calibration Files
10 =F608101604.D 50 =F608101605.D 100 =F608101606.D 500 =F608101607.D 1000=F608101608.D
5000=F608101609.D 1e4 =F608101610.D

		Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)		1,4-Dioxane-d8 (IS)	----------ISTD----------								
2)		1,4-dioxane	1.556	1.402	1.394	1.386	1.470	1.417	1.405	1.433	4.24
3)	I	1,4-Dichlorobenzene-d4	----------ISTD----------								
4)	s	1,4-dioxane-d8	0.428	0.444	0.423	0.441	0.417	0.442	0.435	0.433	2.41

Continuing Calibration
Form 7

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725	
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015	
Instrument ID	: BNA6	**Calibration Date**	: 08/19/16 16:30	
Lab File ID	: F608191604	**Init. Calib. Date(s)**	: 08/10/16	08/10/16
Sample No	: WG924327-3	**Init. Calib. Times**	: 14:22	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	106	-.07
1,4-dioxane	1.433	1.383	-	3.5	20	100	-.07
1,4-Dichlorobenzene-d4	1	1	-	0	20	106	-.08
1,4-dioxane-d8	0.433	0.416	-	3.9	20	105	-.07

* Value outside of QC limits.

Continuing Calibration
Form 7

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725	
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015	
Instrument ID	: BNA6	**Calibration Date**	: 08/20/16 02:59	
Lab File ID	: F608191618	**Init. Calib. Date(s)**	: 08/10/16	08/10/16
Sample No	: WG924327-6	**Init. Calib. Times**	: 14:22	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	97	-.07
1,4-dioxane	1.433	1.341	-	6.4	20	89	-.07
1,4-Dichlorobenzene-d4	1	1	-	0	20	94	-.09
1,4-dioxane-d8	0.433	0.43	-	0.7	20	96	-.07

* Value outside of QC limits.

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/19/16 16:30
Sample No	: WG924327-3	**Lab File ID**	: F608191604

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG924327-3	213494	15.43				
Upper Limit	426988	15.93				
Lower Limit	106747	14.93				
Sample ID						
WG924185-1 BLANK	190886	15.43				
WG924185-2 LCS	187675	15.43				
WG924185-3 LCSD	185516	15.43				
FB-1-081616	181312	15.43				
OB-17-081616	179912	15.43				
OB-18-081616	177316	15.43				
OB-10-081616	173401	15.43				
OB-16-081616	186567	15.43				
OB-28-081616	178401	15.43				
DUP-1-081616	167989	15.43				
OB-29-081616	178827	15.43				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625725
Project Name	: RINGWOOD MINE/ LANDFILL	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/20/16 02:59
Sample No	: WG924327-6	**Lab File ID**	: F608191618

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG924327-6	189317	15.42				
Upper Limit	378634	15.92				
Lower Limit	94659	14.92				
Sample ID						
OB-13-081616	183896	15.42				
OB-13-081616 MS	183213	15.42				
OB-13-081616 MSD	172350	15.42				
OB-14A-081616	180491	15.42				
OB-14B-081616	172840	15.42				
OB-24-081616	171611	15.42				
RW-16-081616	168070	15.42				
OB-03-081616	167272	15.42				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

ALPHA ANALYTICAL

World Class Chemistry

www.alphalab.com

Lab Number: L1625892

Client: Cornerstone/Cadena Co. joint acc

ATTN: Jim Tomalia

Project Name: FORD-RINGWOOD

Project Number: 140802-015

September 20, 2016

Data Deliverable Revision Narrative
Alpha SDG: L1625892
Client: Cornerstone Environmental Group, LLC
Site: FORD-RINGWOOD

This data package replaces the data package issued on August 29, 2016. The package type has changed to DPKG-FULL.

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Sample Delivery Group Information

Sample Delivery Group Form

Laboratory Job number: L1625892
Project Manager: Nichole Hunt **Review Date:** 08/23/2016
Project Number: 140802-015
Project Name: FORD-RINGWOOD **Received:** 08/18/2016 07:58
Client Account: Cornerstone/Cadena Co. joint account **Received by:** KB

Samples Delivered by: COURIER **Call Tracker #**
Bill Of Laden N/A **Trackingnum**
Coc Present Present

Container Status Intact **Sample IDs** rec'd in MF at 2.2c, 3.2c (9849).

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt 7 **Are samples Properly Preserved?** Yes
Initial pH **preserved in house with** **Final pH**
Other Issues
Chlorine Check N/A

Are VOA/VPH Vials Present? No
Aqueous: Do Vials Contain Head Space? N/A
Soils: Is MeOHCovering the Soil? N/A
Reagent H2O Preserved vials Frozen on N/A
Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
B	Absent	Yes	No	4.6 - IR Gun	No	No

A	Absent	Yes	No	2.5 - IR Gun	No	No

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 21 2016, 07:03 pm

Login Number: L1625892
Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015
Received: 18AUG16 Due Date: 29AUG16

Sample #	Client ID	Mat	PR	Collected	Container
L1625892-01	OB-30C-081716	1	S0	17AUG16 10:30	2-Amber-A.5
| DPKG-FULL Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB,DPKG-FULL,NJDEP					
L1625892-02	OB-33-081716	1	S0	17AUG16 11:05	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625892-03	OB-12-081716	1	S0	17AUG16 11:10	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625892-04	OB-30B-081716	1	S0	17AUG16 11:45	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625892-05	OB-15B-081716	1	S0	17AUG16 12:30	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625892-06	OB-2-081716	1	S0	17AUG16 12:50	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625892-07	OB-32-081716	1	S0	17AUG16 13:30	2-Amber-A.5
| Package Due Date: 08/24/16					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 21 2016, 07:03 pm

Login Number: L1625892

Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015

Received: 18AUG16 Due Date: 29AUG16

Sample #	Client ID	Mat	PR	Collected	Container
A2-14-DIOXANESIM-PPB					
L1625892-08	OB-11R-081716		1	S0 17AUG16 14:30	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625892-09	OB-31-081716		1	S0 17AUG16 14:45	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625892-10	SC-2-081716		1	S0 17AUG16 15:00	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625892-11	OB-27-081716		1	S0 17AUG16 16:05	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625892-12	OB-19-081716		1	S0 17AUG16 17:20	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					
L1625892-13	OB-4-081716		1	S0 17AUG16 17:35	2-Amber-A.5
| Package Due Date: 08/24/16					
A2-14-DIOXANESIM-PPB					

Logged By: Nichole Hunt

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1625892-01A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-01A	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-01B	Amber-A.5	EMPTY	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1625892-01B	Amber-A.5	INTACT	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1625892-01B	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-01B	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-02A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-02A	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-02B	Amber-A.5	EMPTY	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1625892-02B	Amber-A.5	INTACT	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1625892-02B	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-02B	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-03A	Amber-A.5	EMPTY	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1625892-03A	Amber-A.5	INTACT	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1625892-03A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-03A	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-03B	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-03B	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-04A	Amber-A.5	EMPTY	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1625892-04A	Amber-A.5	INTACT	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1625892-04A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-04A	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-04B	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-04B	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-05A	Amber-A.5	EMPTY	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1625892-05A	Amber-A.5	INTACT	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1625892-05A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-05A	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-05B	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-05B	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-06A	Amber-A.5	EMPTY	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1625892-06A	Amber-A.5	INTACT	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1625892-06A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-06A	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-06B	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-06B	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-07A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-07A	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-07B	Amber-A.5	EMPTY	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1625892-07B	Amber-A.5	INTACT	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1625892-07B	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-07B	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-08A	Amber-A.5	EMPTY	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1625892-08A	Amber-A.5	INTACT	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1625892-08A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-08A	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-08B	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-08B	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-09A	Amber-A.5	EMPTY	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1625892-09A	Amber-A.5	INTACT	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1625892-09A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-09A	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-09B	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-09B	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-10A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-10A	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-10B	Amber-A.5	EMPTY	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1625892-10B	Amber-A.5	INTACT	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1625892-10B	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-10B	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-11A	Amber-A.5	EMPTY	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1625892-11A	Amber-A.5	INTACT	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1625892-11A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-11A	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-11B	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-11B	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-12A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-12A	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-12B	Amber-A.5	EMPTY	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1625892-12B	Amber-A.5	INTACT	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1625892-12B	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-12B	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-13A	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-13A	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1625892-13B	Amber-A.5	EMPTY	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1625892-13B	Amber-A.5	INTACT	20-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1625892-13B	Amber-A.5	INTACT	19-AUG-16	A2-CUSTODY-REFRIDGE	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1625892-13B	Amber-A.5	INTACT	19-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt

Chain of Custody

NEW JERSEY CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Date Rec'd in Lab: 8/19/16

ALPHA Job #: L1625892

Client Information

Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information

Project Name: Ford - Ringwood
Project Location: Ringwood, NJ
Project #: 140802-015
(Use Project name as Project #) ☐
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4-Dioxane SIM - PDB	Total Bottle	Sample Specific Comments
25892.01	OB-30C-081716	8/17/16	1030	GW	JG	✓		
.02	OB-33-081716	8/17/16	1105	GW	DW	✓		
.03	OB-12-081716	8/17/16	1110	GW	RL	✓		
.04	OB-30B-081716	8/17/16	1145	GW	JG	✓		
.05	OB-15B-081716	8/17/16	1230	GW	DW	✓		
.06	OB-2-081716	8/17/16	1250	GW	RL	✓		
.07	OB-32-081716	8/17/16	1330	GW	JG	✓		
.08	OB-11R-081716	8/17/16	1430	GW	DW	✓		
.09	OB-31-081716	8/17/16	1445	GW	JG	✓		
.10	SC-2-081716	8/17/16	1500	GW	RL	✓		

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/18/16 07:58		8/18/16 07:58
	8/18/16		8/19/16
	8/19/16 0350		8/19/16 0350

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

NEW JERSEY CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Date Rec'd in Lab: 8/19/16

ALPHA Job #: L1625892

Client Information

Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information

Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #: 140802-015
(Use Project name as Project #) ☐
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information

☐ Same as Client Info
PO #

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

A2 1,4 Dioxane SIM - PPB

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4 Dioxane SIM - PPB	Sample Specific Comments
25892.11	OB-27-081716	8/17/16	1605	GW	DW	✓	
.12	OB-19-081716	8/17/16	1720	GW	DW	✓	
.13	OB-4-081716	8/17/16	1735	GW	RL	✓	

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/18/16 07:58	AAL	8/18/16 07:58
AAL	8/18/16 1625		8/18/16 1625
			8/19/16 0000
	8/19/16 0330		8/19/16 0330

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Organics

GCMS Extractables 1,4-Dioxane By SIM

Initial Calibration

Response Factor Report BNA6

Method Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Method File : 14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016
Response Via : Initial Calibration

Calibration Files
10 =F608101604.D 50 =F608101605.D 100 =F608101606.D 500 =F608101607.D 1000=F608101608.D
5000=F608101609.D 1e4 =F608101610.D

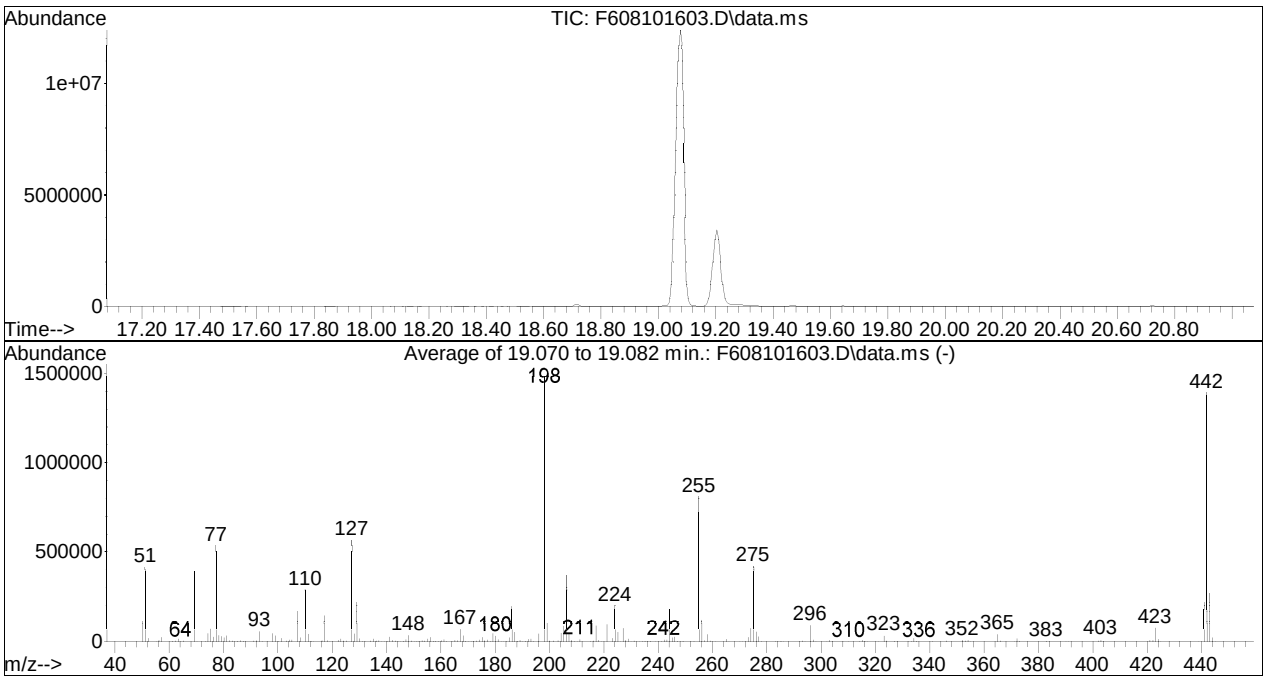
	Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)	1,4-Dioxane-d8 (IS)	ISTD								
2)	1,4-dioxane	1.556	1.402	1.394	1.386	1.470	1.417	1.405	1.433	4.24
3) I	1,4-Dichlorobenzene-d4	ISTD								
4) s	1,4-dioxane-d8	0.428	0.444	0.423	0.441	0.417	0.442	0.435	0.433	2.41

(#) = Out of Range

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101603.D
Acq On : 10 Aug 2016 1:25 pm
Operator : BNA6:SF
Sample : T608101601
Misc : WG921943,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



AutoFind: Scans 1879, 1880, 1881; Background Corrected with Scan 1856

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.1	414533	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2219	PASS
127	198	10	80	38.3	565504	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1476097	PASS
199	198	5	9	6.8	100408	PASS
275	198	10	60	28.4	419669	PASS
365	198	1	100	2.8	40728	PASS
441	442	0.01	24	15.6	217472	PASS
442	198	50	100	94.3	1392469	PASS
443	442	15	24	19.4	270059	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101604.D
Acq On : 10 Aug 2016 2:22 pm
Operator : BNA6:SF
Sample : I608101601
Misc : WG921943,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 12:53:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

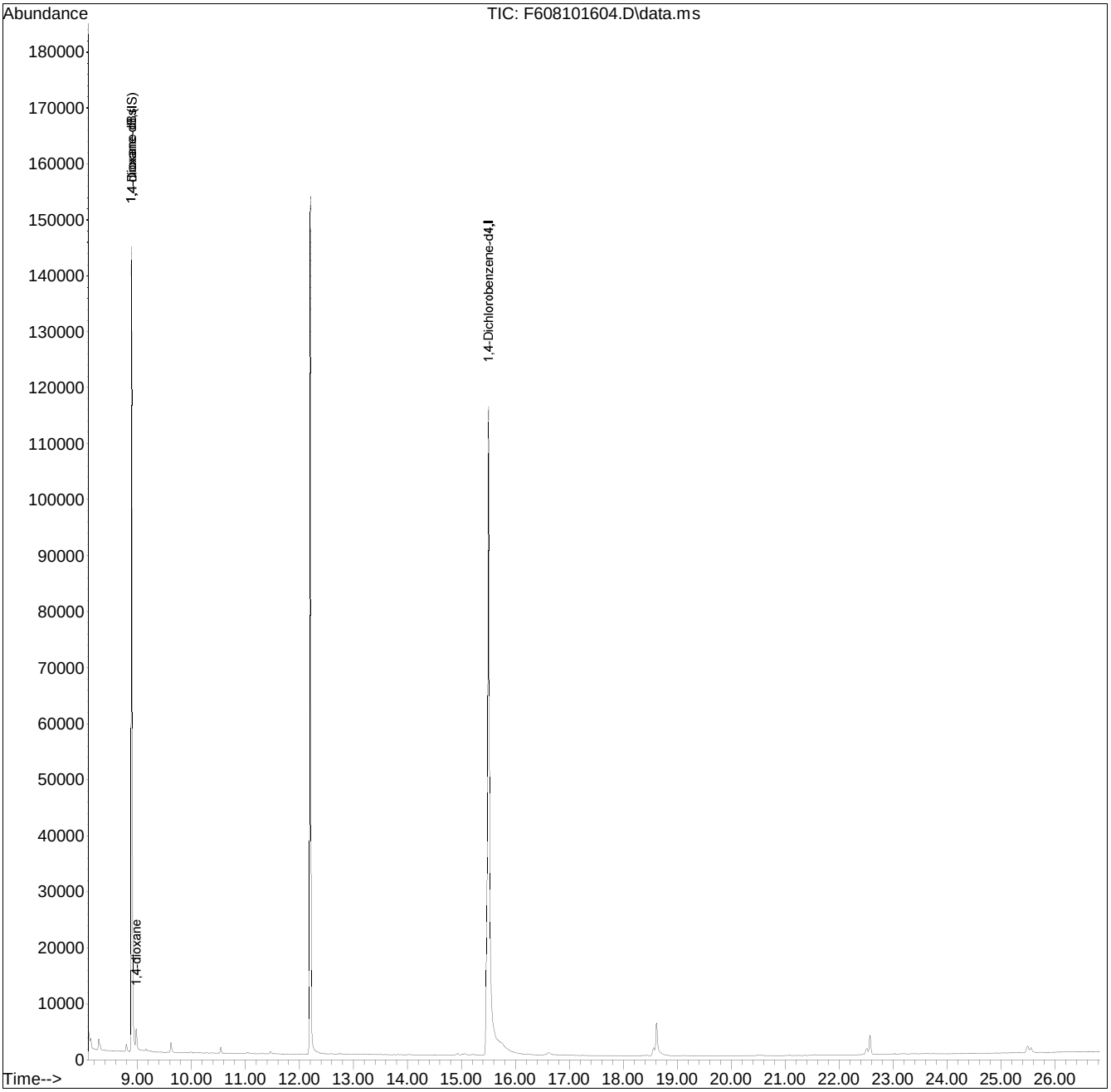
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	85056	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.503	152	198789	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	85056	494.380	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 98.88%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.980	88	2647	10.858	ng/mL	98

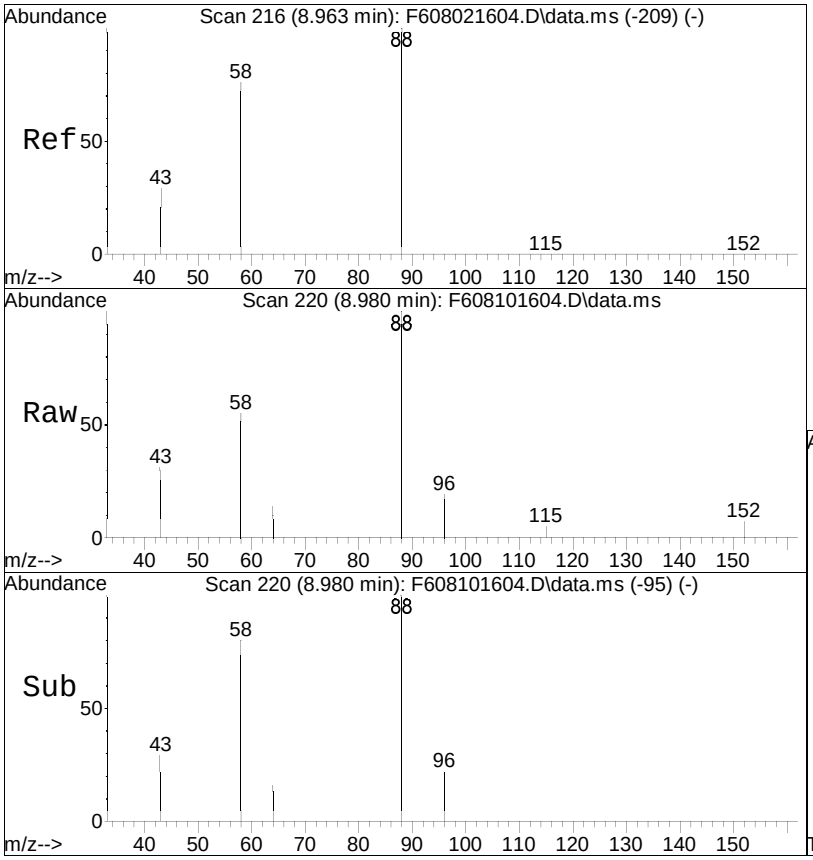
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101604.D
Acq On : 10 Aug 2016 2:22 pm
Operator : BNA6:SF
Sample : I608101601
Misc : WG921943,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 12:53:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

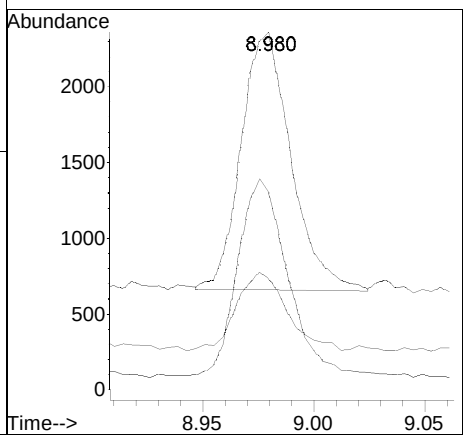




#2
1,4-dioxane
Concen: 10.86 ng/mL
RT: 8.980 min Scan# 220
Delta R.T. 0.008 min
Lab File: F608101604.D
Acq: 10 Aug 2016 2:22 pm

Tgt Ion: 88 Resp: 2647

Ion	Ratio	Lower	Upper
88	100		
58	76.2	62.1	93.1
43	31.4	24.4	36.6



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101604.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 2:22 pm	Instrument	: BNA6
Sample	: I608101601	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101605.D
Acq On : 10 Aug 2016 3:07 pm
Operator : BNA6:SF
Sample : I608101602
Misc : WG921943,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 11 12:53:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	88228	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	198548	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	88228	513.440	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.69%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.984	88	12373	48.930	ng/mL	100

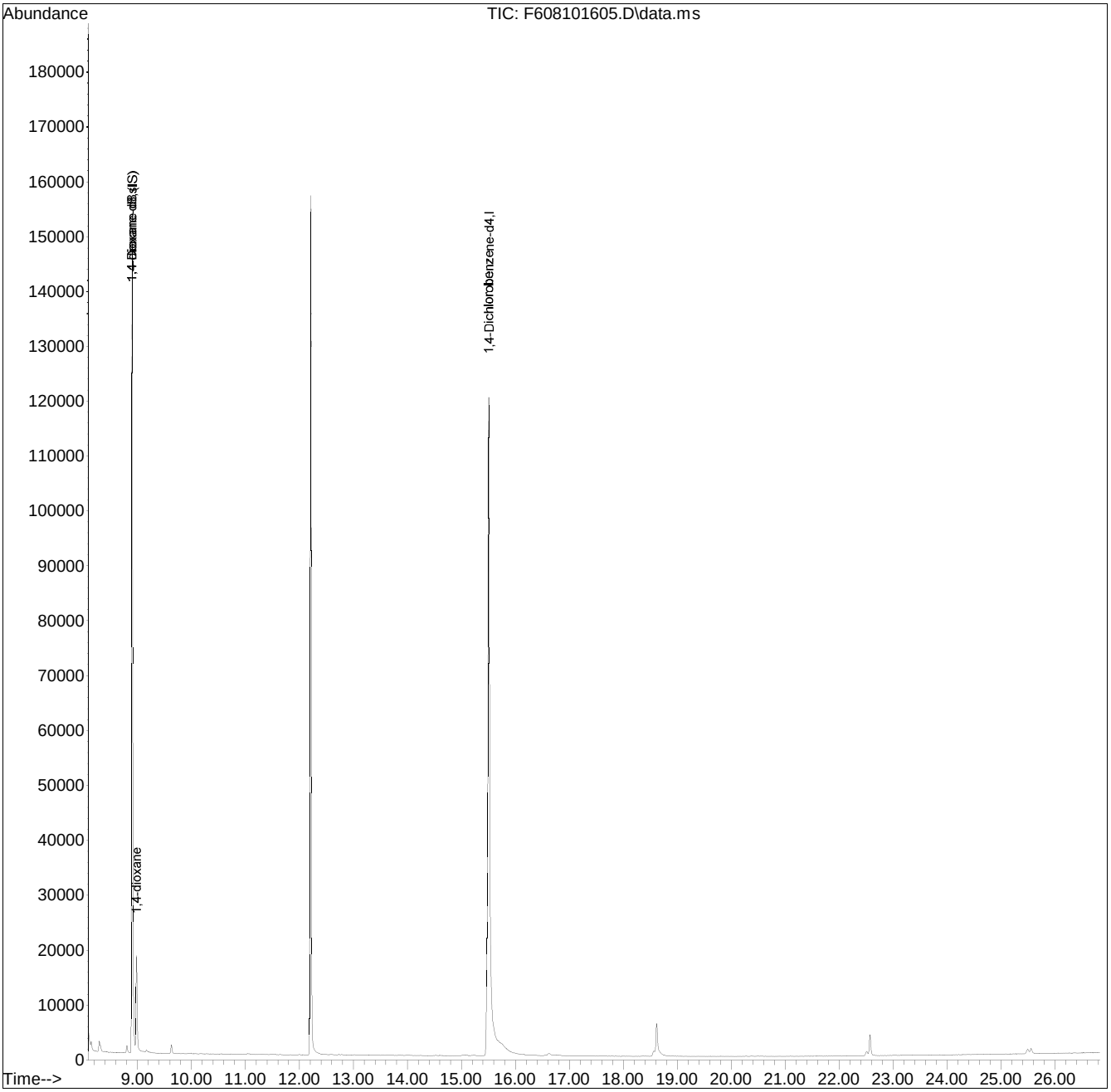
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101605.D
Acq On : 10 Aug 2016 3:07 pm
Operator : BNA6:SF
Sample : I608101602
Misc : WG921943,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 11 12:53:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101605.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 3:07 pm	Instrument	: BNA6
Sample	: I608101602	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101606.D
Acq On : 10 Aug 2016 3:51 pm
Operator : BNA6:SF
Sample : I608101603
Misc : WG921943,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 11 12:53:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

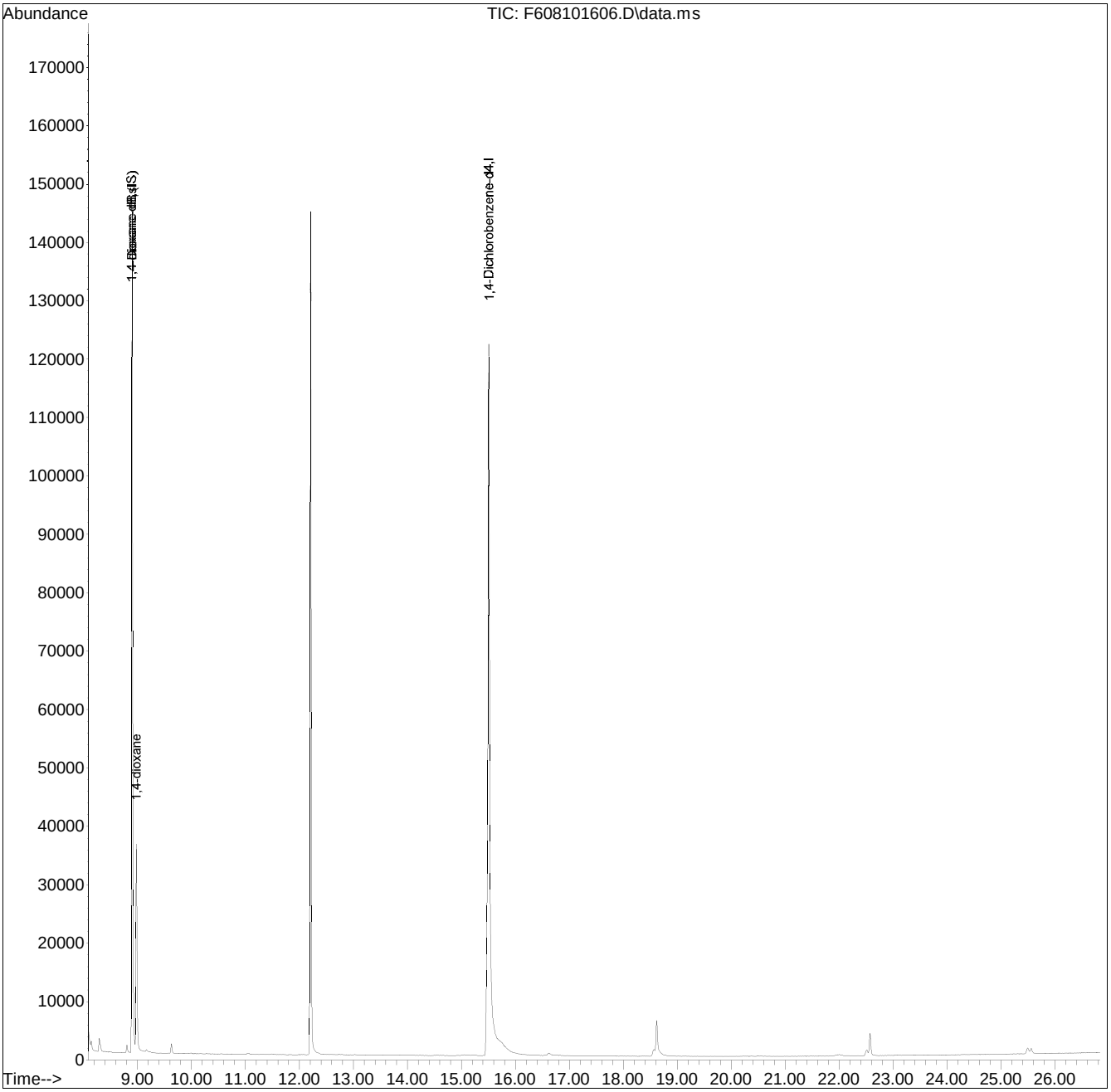
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	86899	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	205668	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	86899	488.199	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 97.64%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.980	88	24230	97.284	ng/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101606.D
Acq On : 10 Aug 2016 3:51 pm
Operator : BNA6:SF
Sample : I608101603
Misc : WG921943,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 11 12:53:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101606.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 3:51 pm	Instrument	: BNA6
Sample	: I608101603	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101607.D
Acq On : 10 Aug 2016 4:36 pm
Operator : BNA6:SF
Sample : I608101604
Misc : WG921943,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 11 12:53:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	86585	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	196925	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	86794M4	509.257	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 101.85%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.972	88	120017M4	483.619	ng/mL	

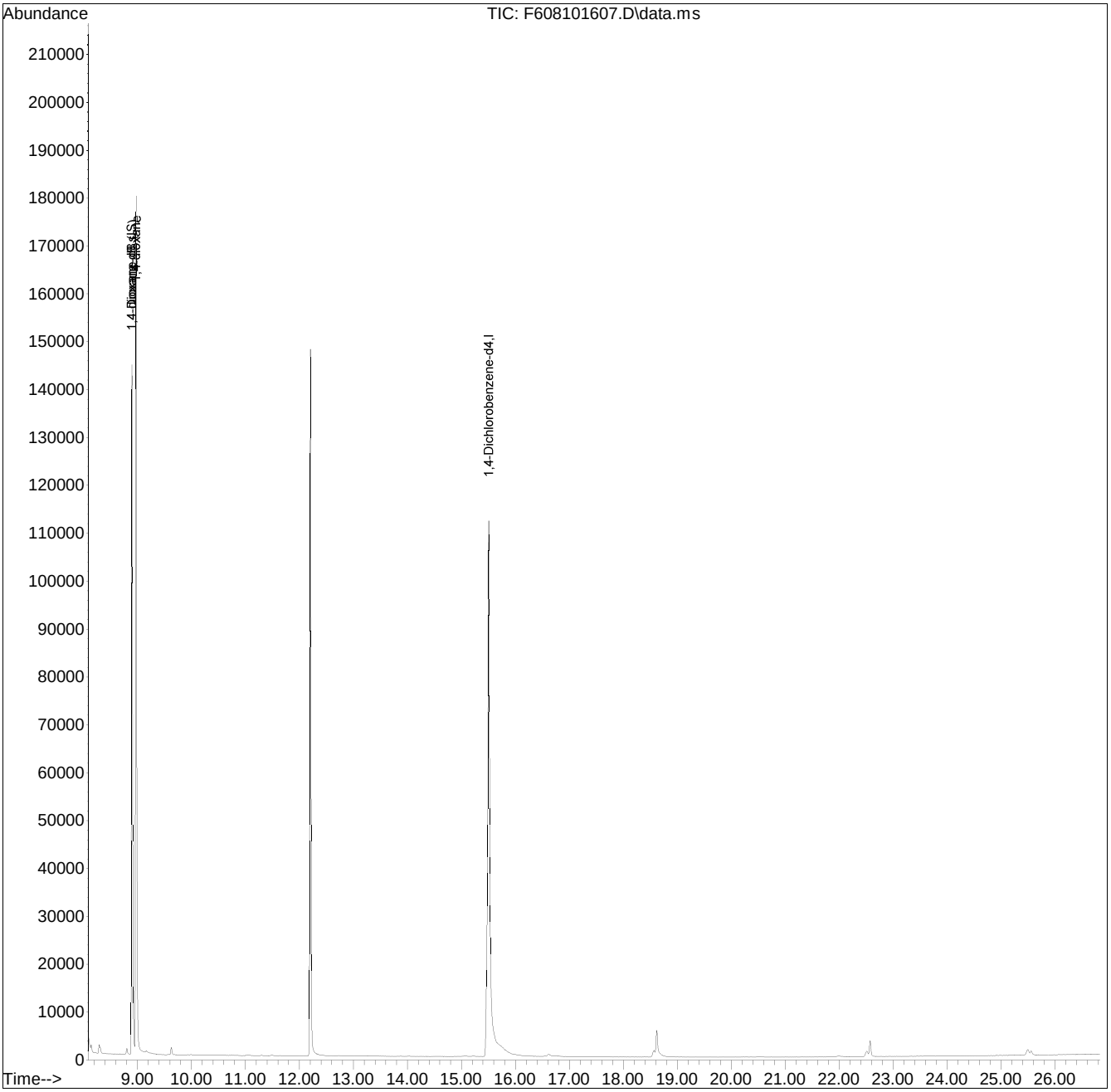
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101607.D
Acq On : 10 Aug 2016 4:36 pm
Operator : BNA6:SF
Sample : I608101604
Misc : WG921943,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 11 12:53:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

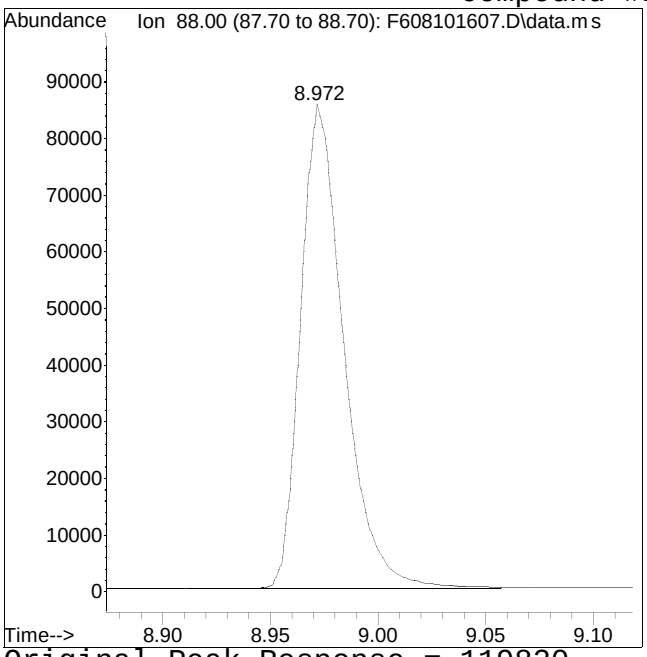
Sub List : Default - All compounds listed



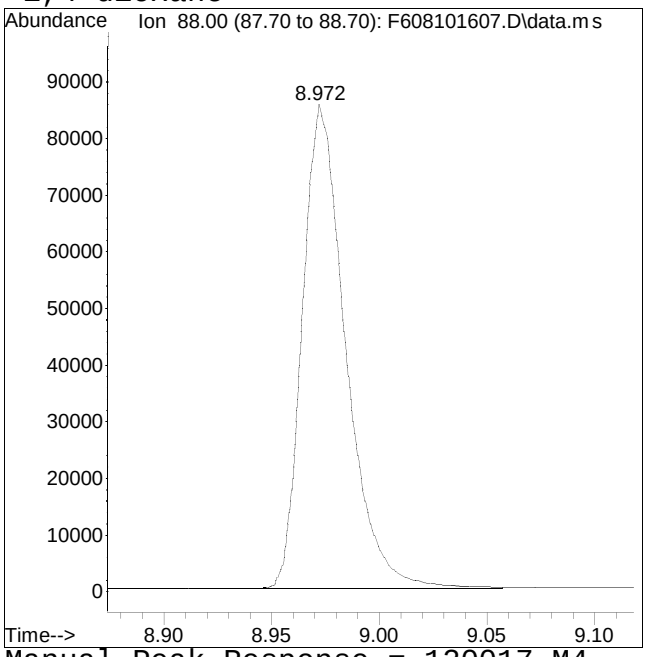
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101607.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 4:36 pm Instrument : BNA6
Sample : I608101604 Quant Date : 8/11/2016 12:53 pm

Compound #2: 1,4-dioxane



Original Peak Response = 119820



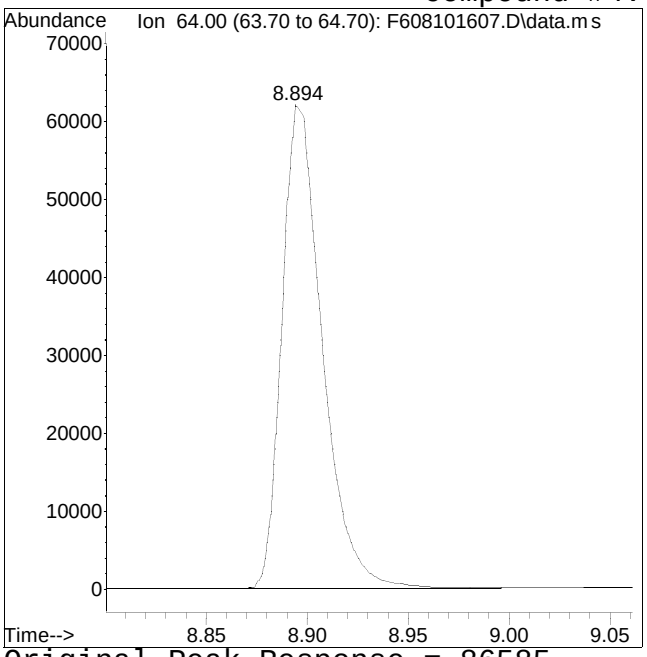
Manual Peak Response = 120017 M4

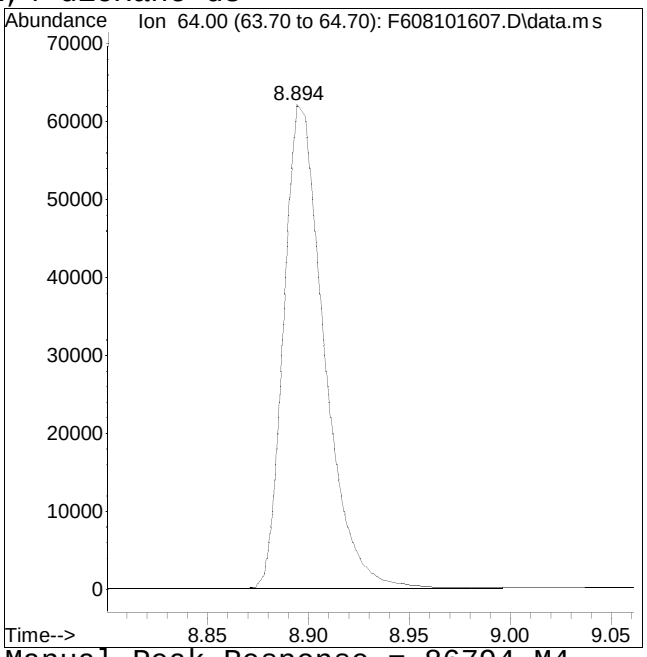
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101607.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 4:36 pm Instrument : BNA6
Sample : I608101604 Quant Date : 8/11/2016 12:53 pm

Compound #4: 1,4-dioxane-d8





Original Peak Response = 86585 Manual Peak Response = 86794 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101608.D
Acq On : 10 Aug 2016 5:21 pm
Operator : BNA6:SF
Sample : I608101605
Misc : WG921943,MSAK15
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 11 12:53:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	83650	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	200518	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	83650	482.016	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 96.40%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.971	88	245983	1025.987	ng/mL	99

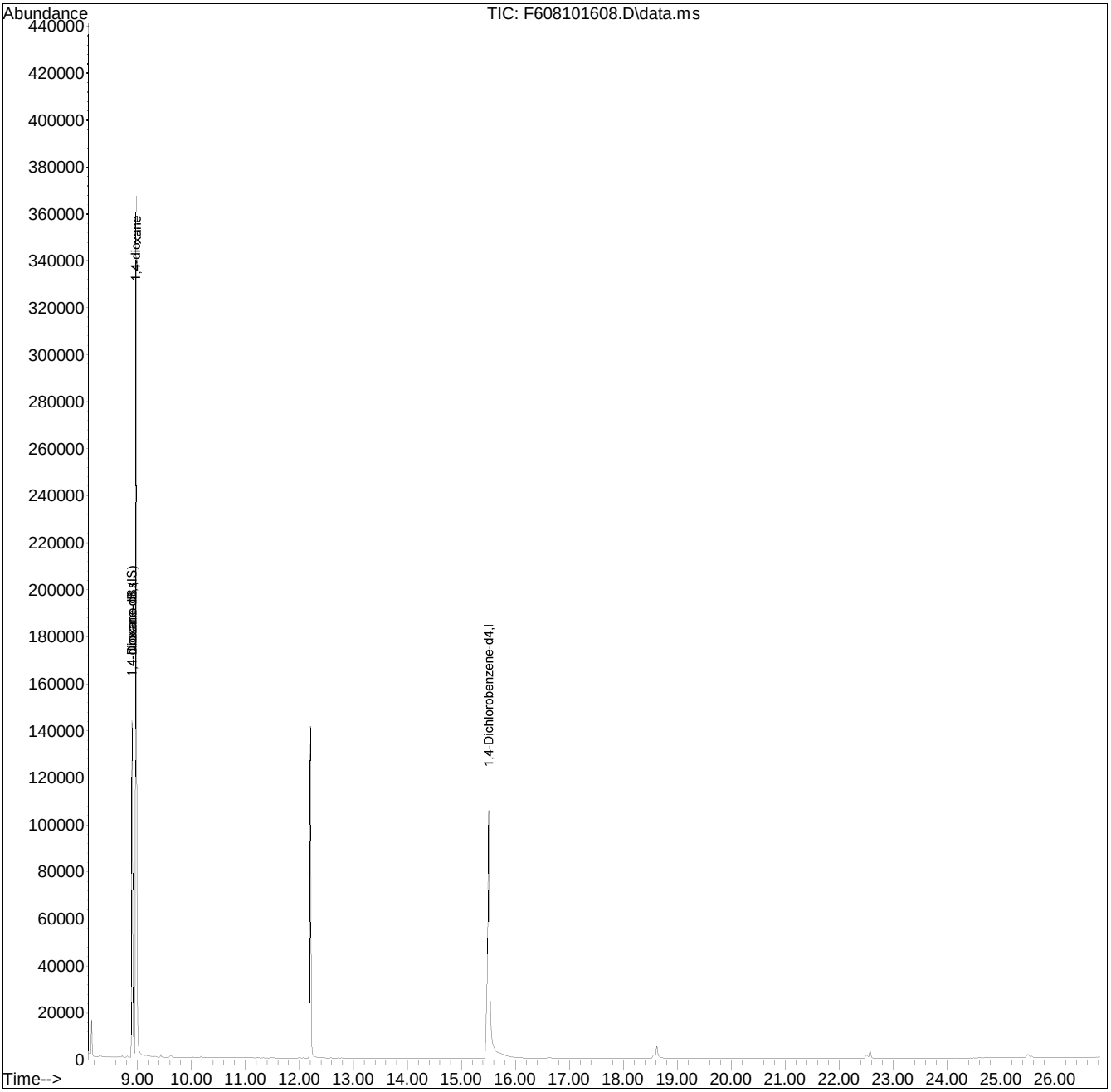
(#) = qualifier out of range (m) = manual integration (+) = signals summed

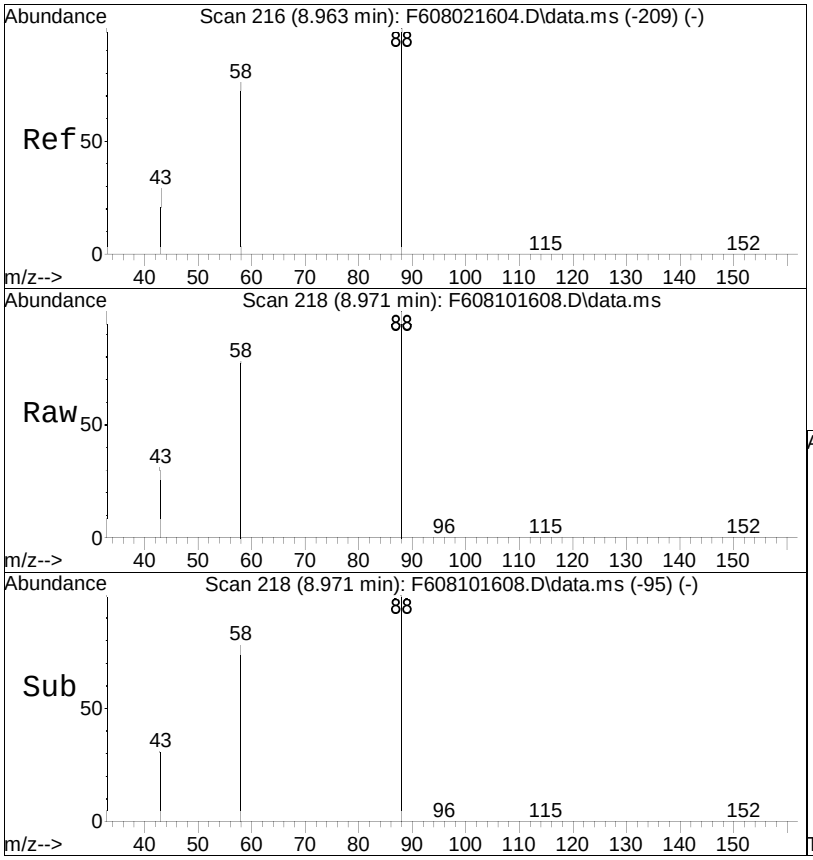
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101608.D
Acq On : 10 Aug 2016 5:21 pm
Operator : BNA6:SF
Sample : I608101605
Misc : WG921943,MSAK15
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 11 12:53:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

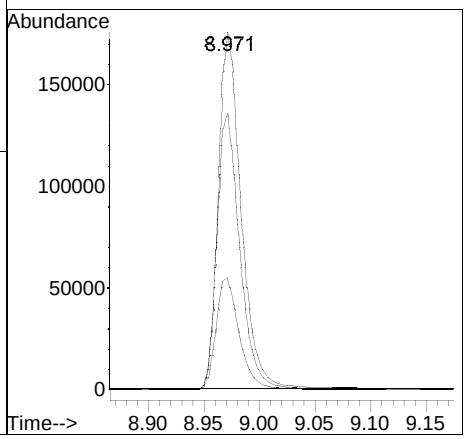




#2
1,4-dioxane
Concen: 1025.99 ng/mL
RT: 8.971 min Scan# 218
Delta R.T. 0.000 min
Lab File: F608101608.D
Acq: 10 Aug 2016 5:21 pm

Tgt Ion: 88 Resp: 245983

Ion	Ratio	Lower	Upper
88	100		
58	78.3	62.1	93.1
43	31.7	24.4	36.6



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101608.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 5:21 pm	Instrument	: BNA6
Sample	: I608101605	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101609.D
Acq On : 10 Aug 2016 6:06 pm
Operator : BNA6:SF
Sample : I608101606
Misc : WG921943,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 11 12:53:40 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	84632M4	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	191584	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	84626M4	510.379	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.08%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.963	88	1199636	4945.586	ng/mL	99

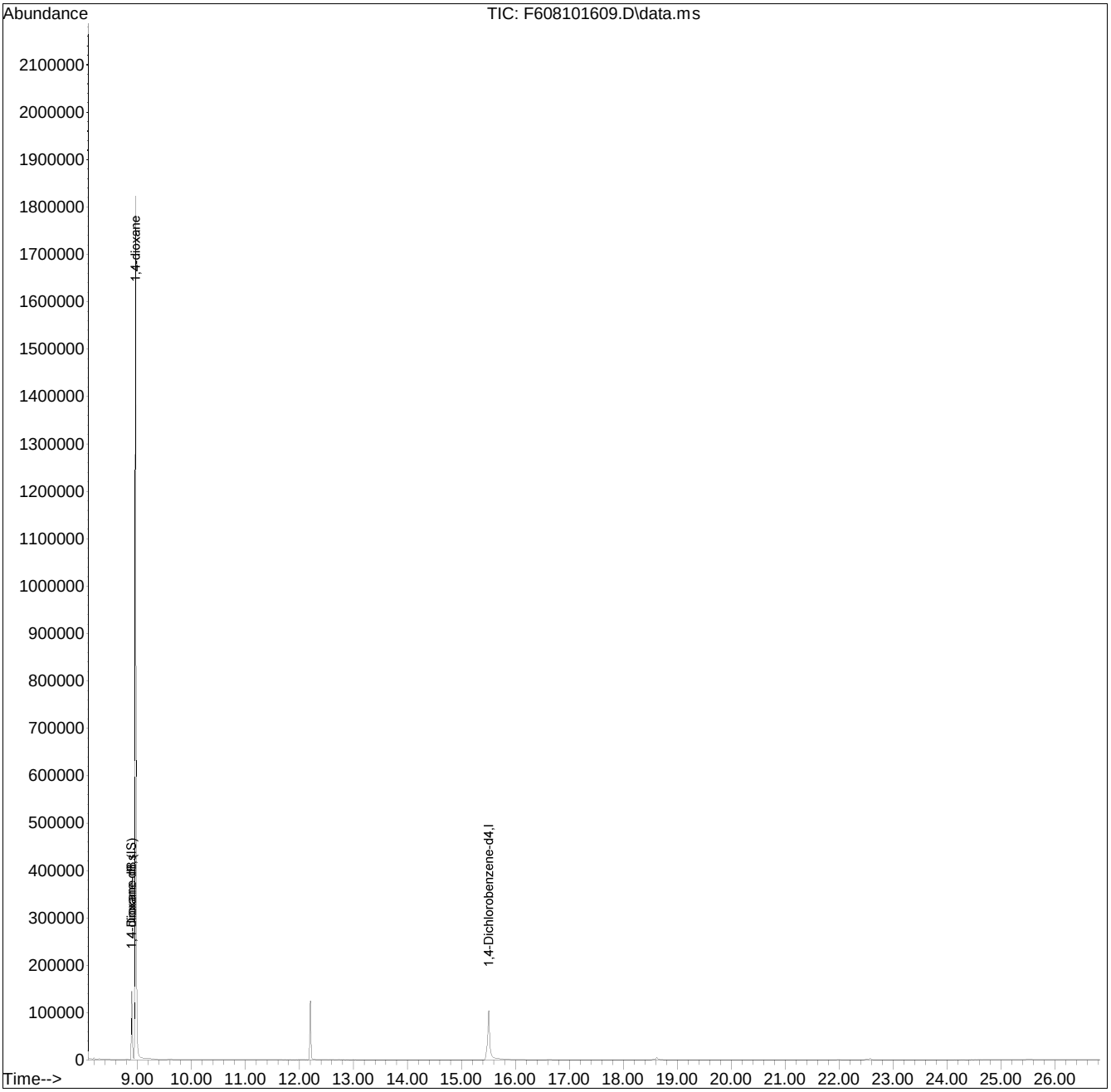
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101609.D
Acq On : 10 Aug 2016 6:06 pm
Operator : BNA6:SF
Sample : I608101606
Misc : WG921943,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 11 12:53:40 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

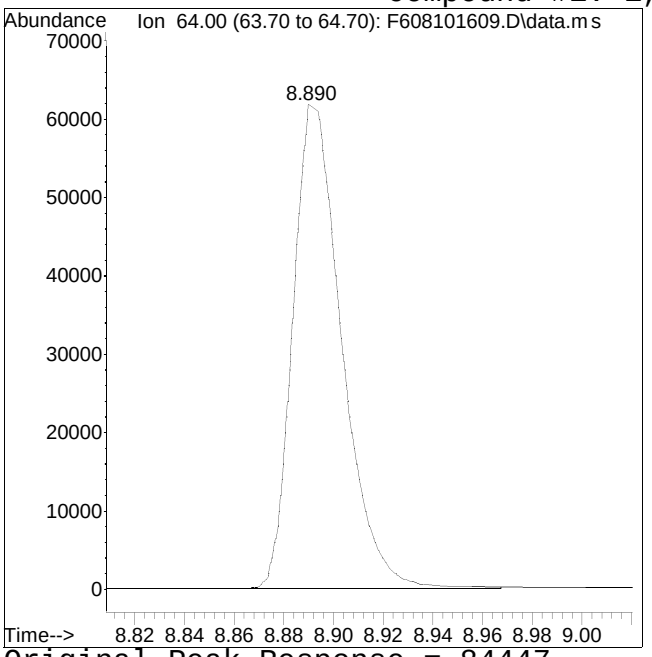
Sub List : Default - All compounds listed



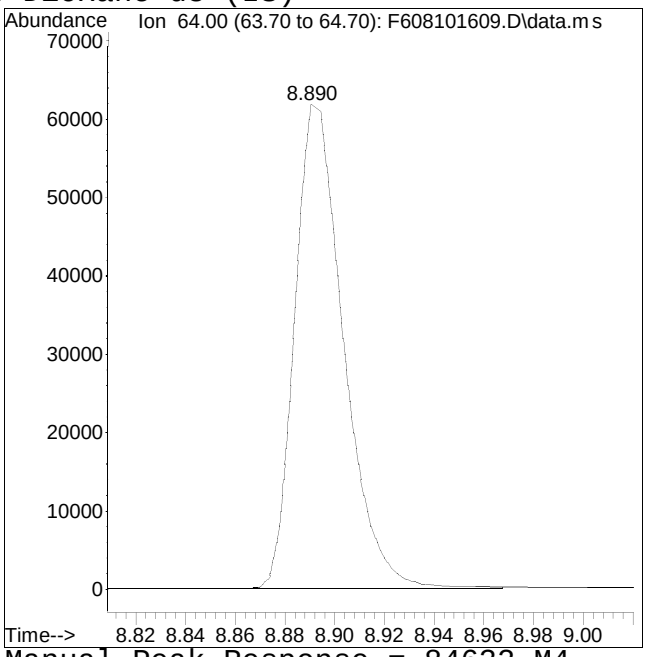
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101609.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 6:06 pm Instrument : BNA6
Sample : I608101606 Quant Date : 8/11/2016 12:53 pm

Compound #1: 1,4-Dioxane-d8 (IS)



Original Peak Response = 84447



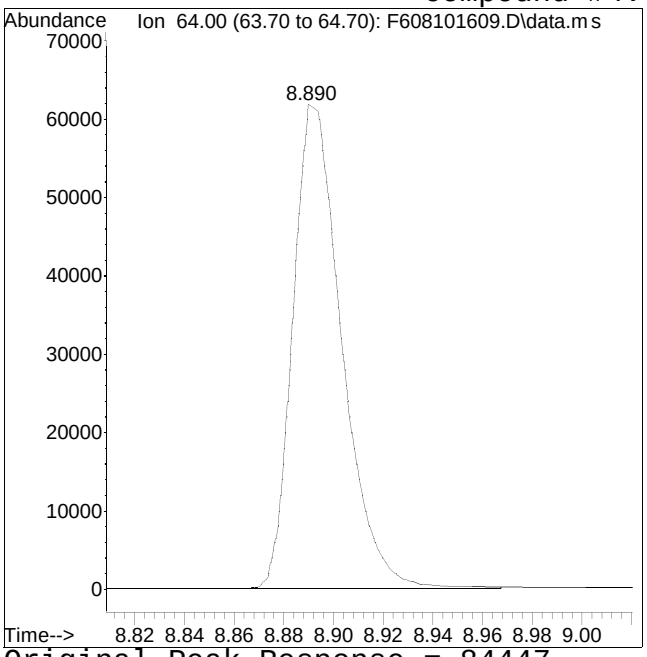
Manual Peak Response = 84632 M4

M4 = Poor automated baseline construction.

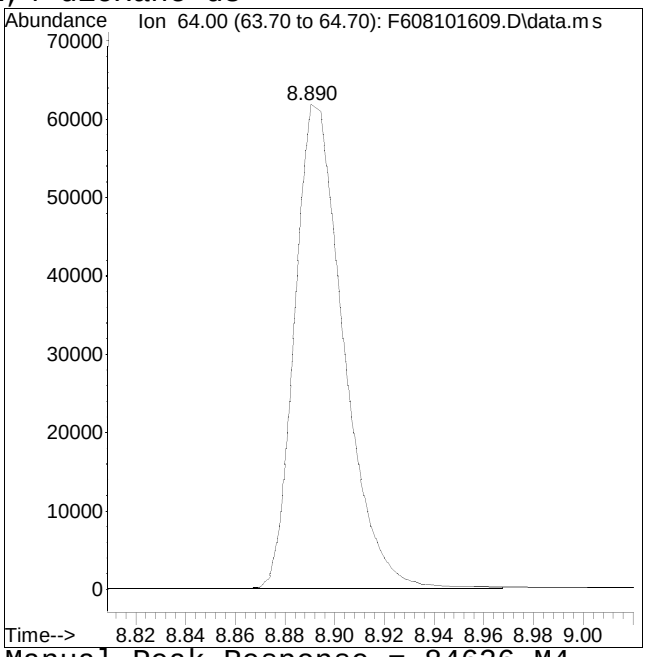
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101609.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 6:06 pm Instrument : BNA6
Sample : I608101606 Quant Date : 8/11/2016 12:53 pm

Compound #4: 1,4-dioxane-d8



Original Peak Response = 84447



Manual Peak Response = 84626 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101610.D
Acq On : 10 Aug 2016 6:51 pm
Operator : BNA6:SF
Sample : I608101607
Misc : WG921943,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 11 12:53:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.882	64	82789	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.503	152	190429	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.882	64	82789	502.329	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 100.47%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	2326389	9804.210	ng/mL	99

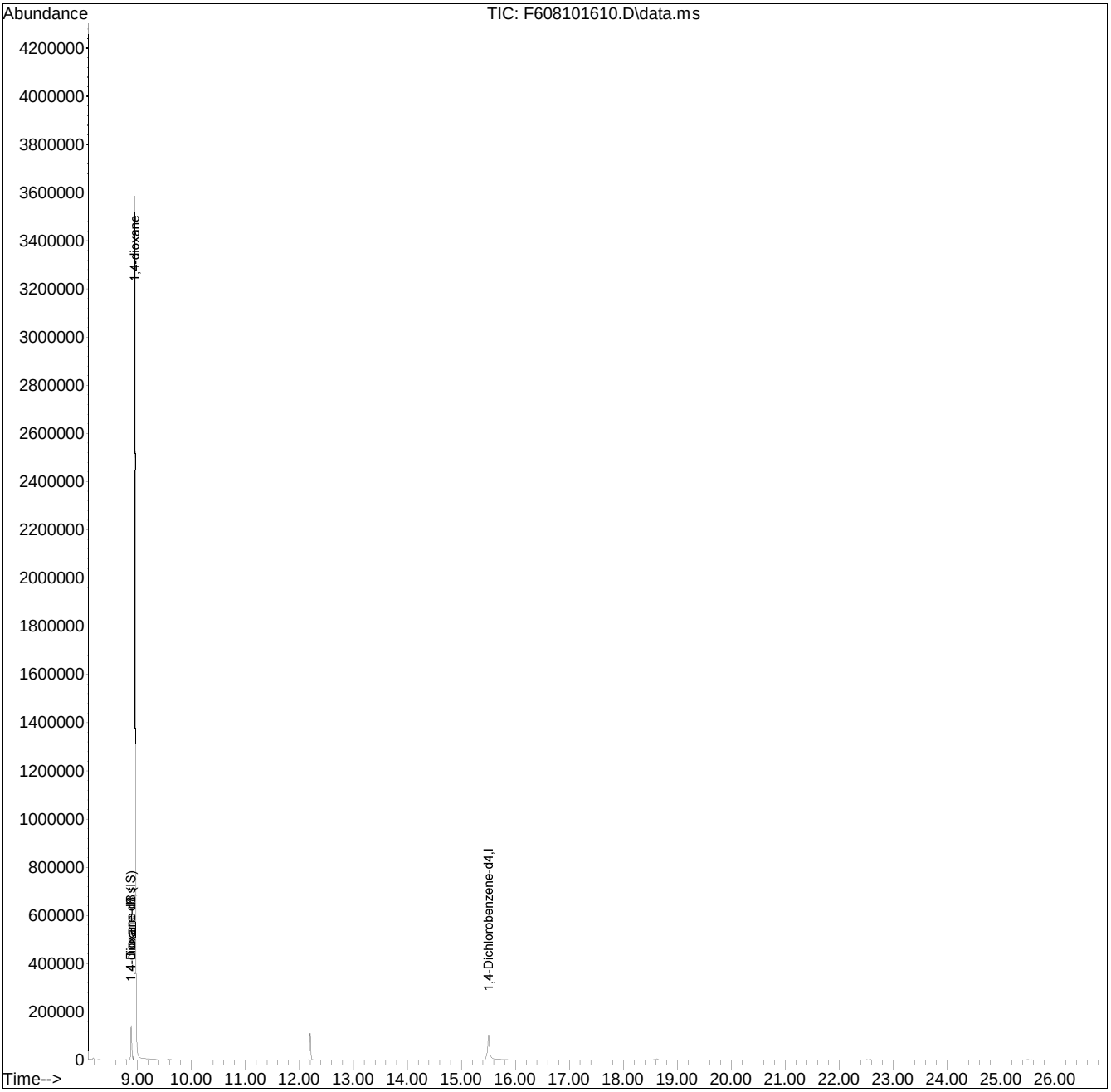
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101610.D
Acq On : 10 Aug 2016 6:51 pm
Operator : BNA6:SF
Sample : I608101607
Misc : WG921943,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 11 12:53:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101610.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 6:51 pm	Instrument	: BNA6
Sample	: I608101607	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	98	0.00
2	1,4-dioxane	1.433	1.360	5.1	91	0.00
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
4 s	1,4-dioxane-d8	0.433	0.442	-2.1	97	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	82343	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	186413	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	82343	510.386	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.08%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.968	88	223932	948.839	ng/mL	99

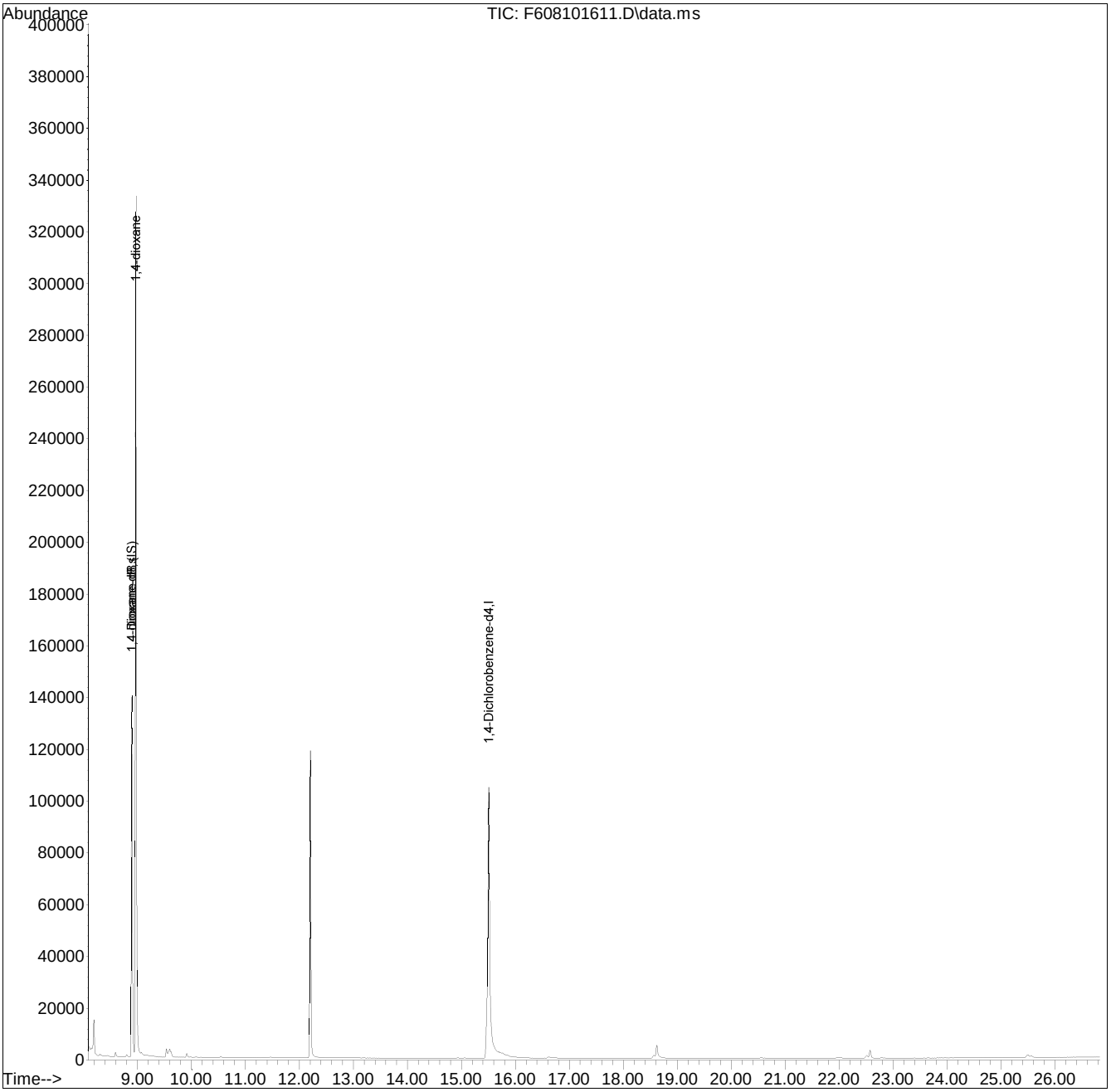
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101611.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 7:36 pm	Instrument	: BNA6
Sample	: CQ608101601	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 20 2016, 04:12 pm

Work Group: WG924460 for Department: 2 Organic Preparation

Created: 20-AUG-16 Due: Operator: ABS

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1625892-01	OB-30C-081716	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0824	0829	S0	Amber-A.5
L1625892-02	OB-33-081716	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0824	0829	S0	Amber-A.5
L1625892-03	OB-12-081716	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0824	0829	S0	Amber-A.5
L1625892-04	OB-30B-081716	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0824	0829	S0	Amber-A.5
L1625892-05	OB-15B-081716	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0824	0829	S0	Amber-A.5
L1625892-06	OB-2-081716	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0824	0829	S0	Amber-A.5
L1625892-07	OB-32-081716	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0824	0829	S0	Amber-A.5
L1625892-08	OB-11R-081716	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0824	0829	S0	Amber-A.5
L1625892-09	OB-31-081716	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0824	0829	S0	Amber-A.5
L1625892-10	SC-2-081716	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0824	0829	S0	Amber-A.5
L1625892-11	OB-27-081716	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0824	0829	S0	Amber-A.5
L1625892-12	OB-19-081716	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0824	0829	S0	Amber-A.5
L1625892-13	OB-4-081716	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0824	0829	S0	Amber-A.5
L1626038-03	NHB036:ERHCTE1:W0817	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0824	0826	S0	Amber-A.5
L1626038-06	NHB036:ERHCTE2:W0817	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0824	0826	S0	Amber-A.5
WG924460-1	Laboratory Method Bl	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG924460-2	Laboratory Control S	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG924460-3	LCS Duplicate	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				

Comments:

WG924460-3 WG924460-2

Sequence Logs

Analysis log File

SF 081116

Total Files Reported in Log : 11
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Aug\Aug10\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F608101601.D	14DIOXDFTPPB	TUNE	MSAK38	8/10/2016 11:28 am
2	F608101602.D	14DIOXBNA6.M	CCV	MSAK15	8/10/2016 12:25 pm
3	F608101603.D	14DIOXDFTPPB	T608101601	WG921943,MSAK38	8/10/2016 1:25 pm
4	F608101604.D	14DIOXBNA6.M	I608101601	WG921943,MSAJ77	8/10/2016 2:22 pm
5	F608101605.D	14DIOXBNA6.M	I608101602	WG921943,MSAJ78	8/10/2016 3:07 pm
6	F608101606.D	14DIOXBNA6.M	I608101603	WG921943,MSAJ79	8/10/2016 3:51 pm
7	F608101607.D	14DIOXBNA6.M	I608101604	WG921943,MSAJ80	8/10/2016 4:36 pm
8	F608101608.D	14DIOXBNA6.M	I608101605	WG921943,MSAK15	8/10/2016 5:21 pm
9	F608101609.D	14DIOXBNA6.M	I608101606	WG921943,MSAJ82	8/10/2016 6:06 pm
10	F608101610.D	14DIOXBNA6.M	I608101607	WG921943,MSAJ76	8/10/2016 6:51 pm
11	F608101611.D	14DIOXBNA6.M	CQ608101601	WG921943,MSAJ49	8/10/2016 7:36 pm

Analysis log File

Total Files Reported in Log : 22
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Aug\Aug22\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F608221601.D	14DIOXDFTPPB	WG924876-1	WG924876,MSAK38	8/22/2016 1:59 pm
2	F608221602.D	14DIOXBNA6.M	WG924876-3	WG924876,MSAK15	8/22/2016 2:55 pm
3	F608221603.D	14DIOXBNA6.M	WG924460-1	WG924876,WG924460..	8/22/2016 4:25 pm
4	F608221604.D	14DIOXBNA6.M	WG924460-2	WG924876,WG924460..	8/22/2016 5:09 pm
5	F608221605.D	14DIOXBNA6.M	WG924460-3	WG924876,WG924460..	8/22/2016 5:53 pm
6	F608221606.D	14DIOXBNA6.M	L1625892-01	WG924876,WG924460..	8/22/2016 6:37 pm
7	F608221607.D	14DIOXBNA6.M	L1625892-02	WG924876,WG924460..	8/22/2016 7:21 pm
8	F608221608.D	14DIOXBNA6.M	L1625892-03	WG924876,WG924460..	8/22/2016 8:05 pm
9	F608221609.D	14DIOXBNA6.M	L1625892-04	WG924876,WG924460..	8/22/2016 8:49 pm
10	F608221610.D	14DIOXBNA6.M	L1625892-05	WG924876,WG924460..	8/22/2016 9:33 pm
11	F608221611.D	14DIOXBNA6.M	L1625892-06	WG924876,WG924460..	8/22/2016 10:18 pm
12	F608221612.D	14DIOXBNA6.M	L1625892-07	WG924876,WG924460..	8/22/2016 11:01 pm
13	F608221613.D	14DIOXDFTPPB	WG924876-4	WG924876,MSAK38	8/22/2016 11:42 pm
14	F608221614.D	14DIOXBNA6.M	WG924876-6	WG924876,MSAK15	8/23/2016 12:38 am
15	F608221615.D	14DIOXBNA6.M	L1625892-08	WG924876,WG924460..	8/23/2016 1:21 am
16	F608221616.D	14DIOXBNA6.M	L1625892-09	WG924876,WG924460..	8/23/2016 2:05 am
17	F608221617.D	14DIOXBNA6.M	L1625892-10	WG924876,WG924460..	8/23/2016 2:49 am
18	F608221618.D	14DIOXBNA6.M	L1625892-11	WG924876,WG924460..	8/23/2016 3:33 am
19	F608221619.D	14DIOXBNA6.M	L1625892-12	WG924876,WG924460..	8/23/2016 4:16 am
20	F608221620.D	14DIOXBNA6.M	L1625892-13	WG924876,WG924460..	8/23/2016 5:00 am
21	F608221621.D	14DIOXBNA6.M	L1626038-03	WG924876,WG924460..	8/23/2016 5:44 am
22	F608221622.D	14DIOXBNA6.M	L1626038-06	WG924876,WG924460..	8/23/2016 6:27 am

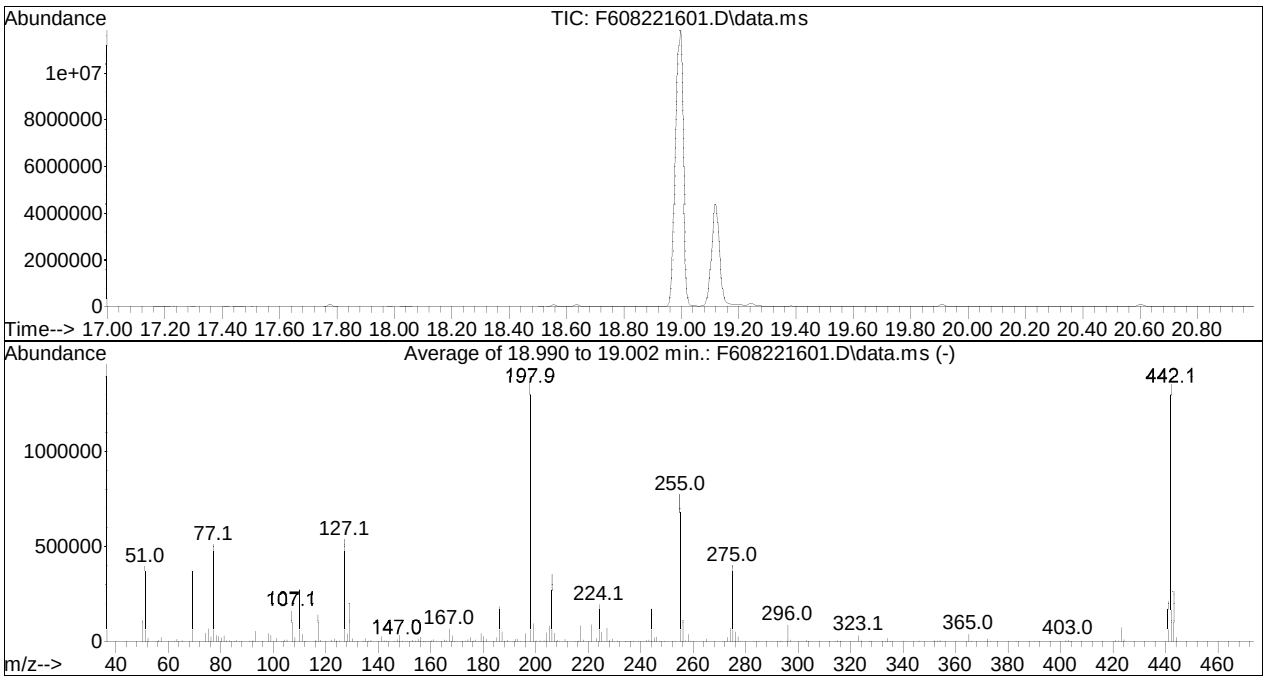
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221601.D
Acq On : 22 Aug 2016 1:59 pm
Operator : BNA6:WR
Sample : WG924876-1
Misc : WG924876,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



AutoFind: Scans 1865, 1866, 1867; Background Corrected with Scan 1846

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.3	393027	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2230	PASS
127	198	10	80	38.4	534080	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1389480	PASS
199	198	5	9	6.8	93843	PASS
275	198	10	60	28.5	396565	PASS
365	198	1	100	2.8	38307	PASS
441	442	0.01	24	15.7	213141	PASS
442	198	50	100	97.6	1356800	PASS
443	442	15	24	19.5	264064	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221602.D
Acq On : 22 Aug 2016 2:55 pm
Operator : BNA6:WR
Sample : WG924876-3
Misc : WG924876,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 22 15:58:59 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	97	-0.06
2	1,4-dioxane	1.433	1.389	3.1	92	-0.06
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	-0.09
4 s	1,4-dioxane-d8	0.433	0.413	4.6	95	-0.06

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221602.D
Acq On : 22 Aug 2016 2:55 pm
Operator : BNA6:WR
Sample : WG924876-3
Misc : WG924876,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 22 15:58:59 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.833	64	81181	500.000	ng/mL	-0.06
3) 1,4-Dichlorobenzene-d4	15.422	152	196589	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.833	64	81181	477.138	ng/mL	-0.06
Spiked Amount 500.000	Range 15 - 115		Recovery = 95.43%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.906	88	225599	969.585	ng/mL	99

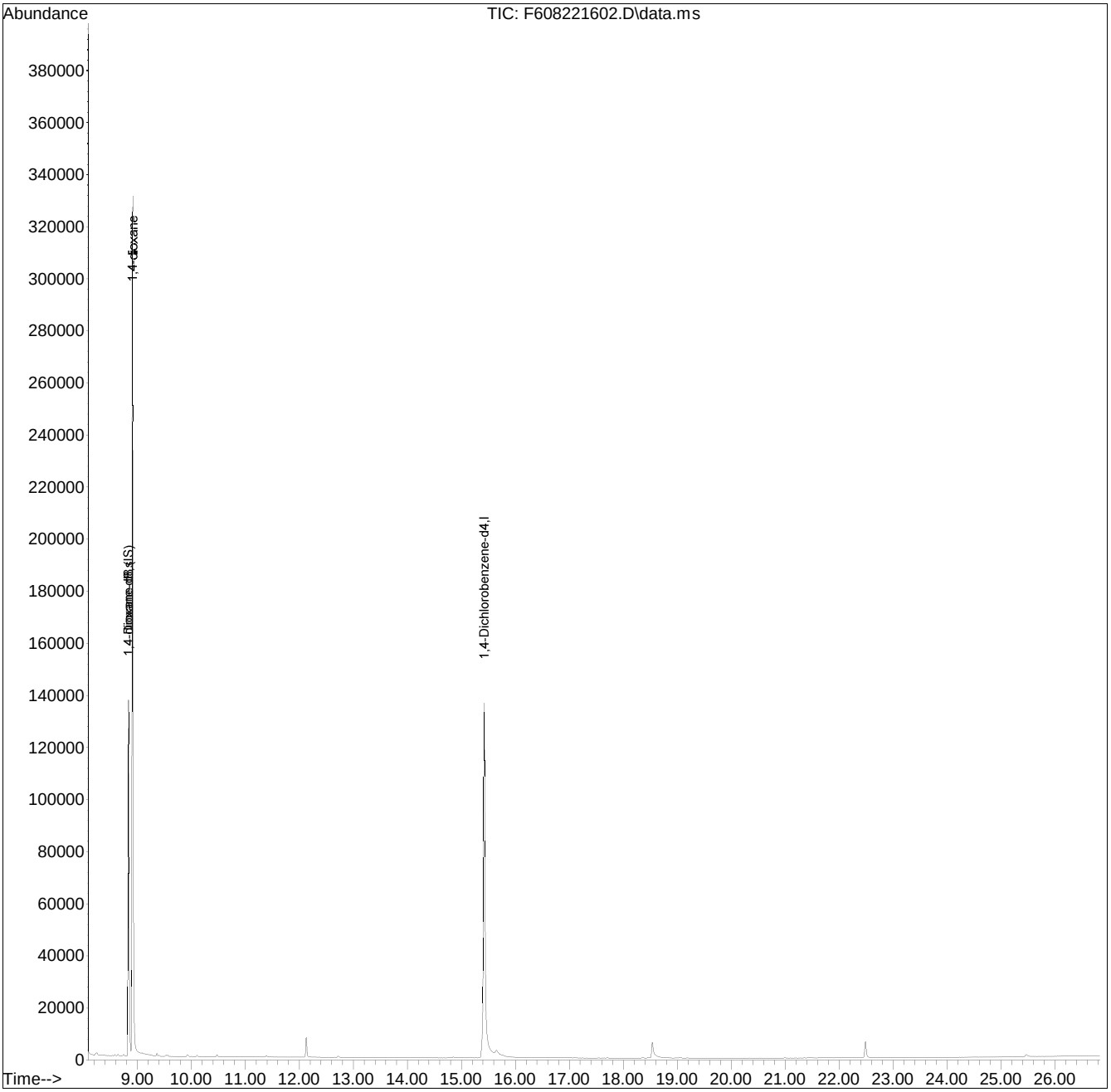
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221602.D
Acq On : 22 Aug 2016 2:55 pm
Operator : BNA6:WR
Sample : WG924876-3
Misc : WG924876,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 22 15:58:59 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221606.D
Acq On : 22 Aug 2016 6:37 pm
Operator : BNA6:WR
Sample : L1625892-01
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 24 15:31:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.866	64	18377	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	171048	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.866	64	18377	124.138	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.83%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	567M4	10.765	ng/mL	

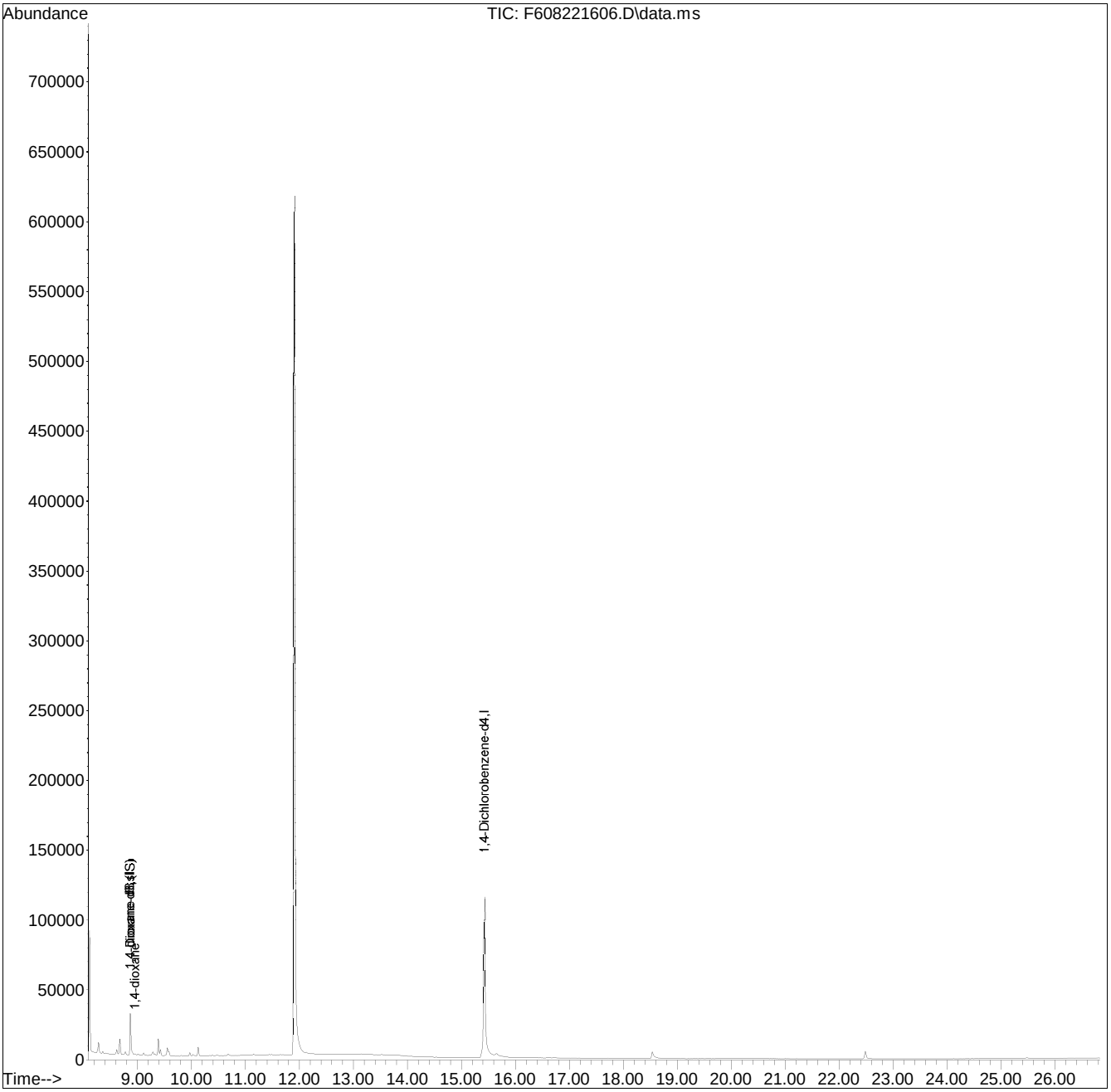
(#) = qualifier out of range (m) = manual integration (+) = signals summed

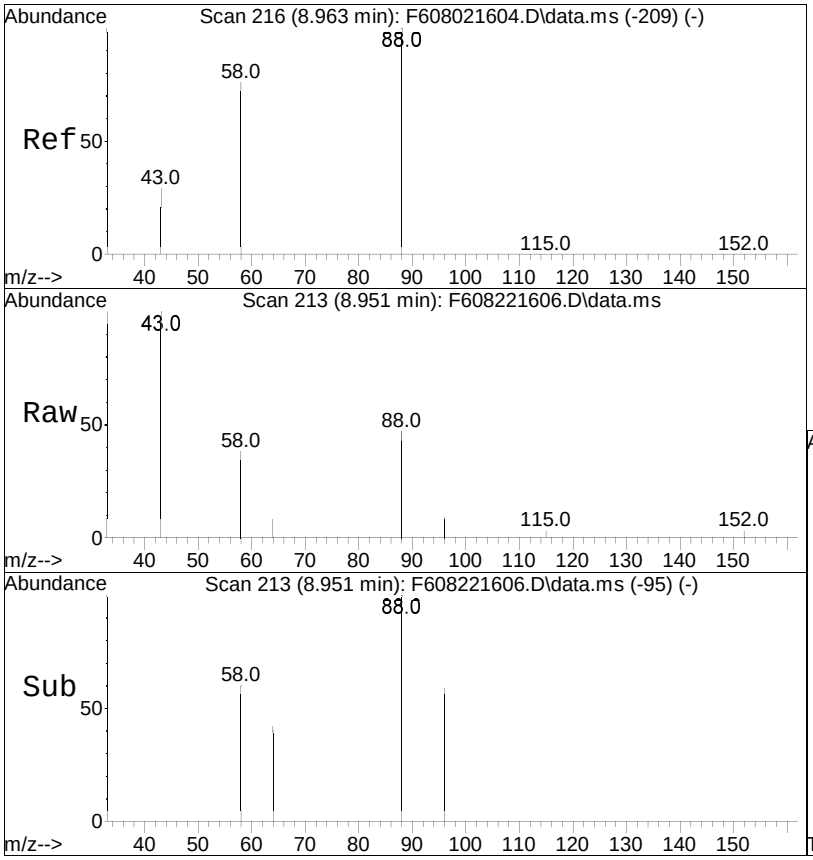
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221606.D
Acq On : 22 Aug 2016 6:37 pm
Operator : BNA6:WR
Sample : L1625892-01
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 24 15:31:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

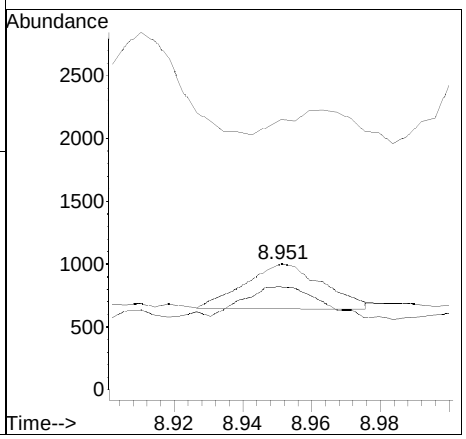




#2
1,4-dioxane
Concen: 10.76 ng/mL M4
RT: 8.951 min Scan# 213
Delta R.T. -0.020 min
Lab File: F608221606.D
Acq: 22 Aug 2016 6:37 pm

Tgt Ion: 88 Resp: 567

Ion	Ratio	Lower	Upper
88	100		
58	3.4	62.1	93.1#
43	0.0	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221607.D
Acq On : 22 Aug 2016 7:21 pm
Operator : BNA6:WR
Sample : L1625892-02
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 24 15:32:14 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.861	64	18316	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	170858	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.861	64	18316	123.864	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.77%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

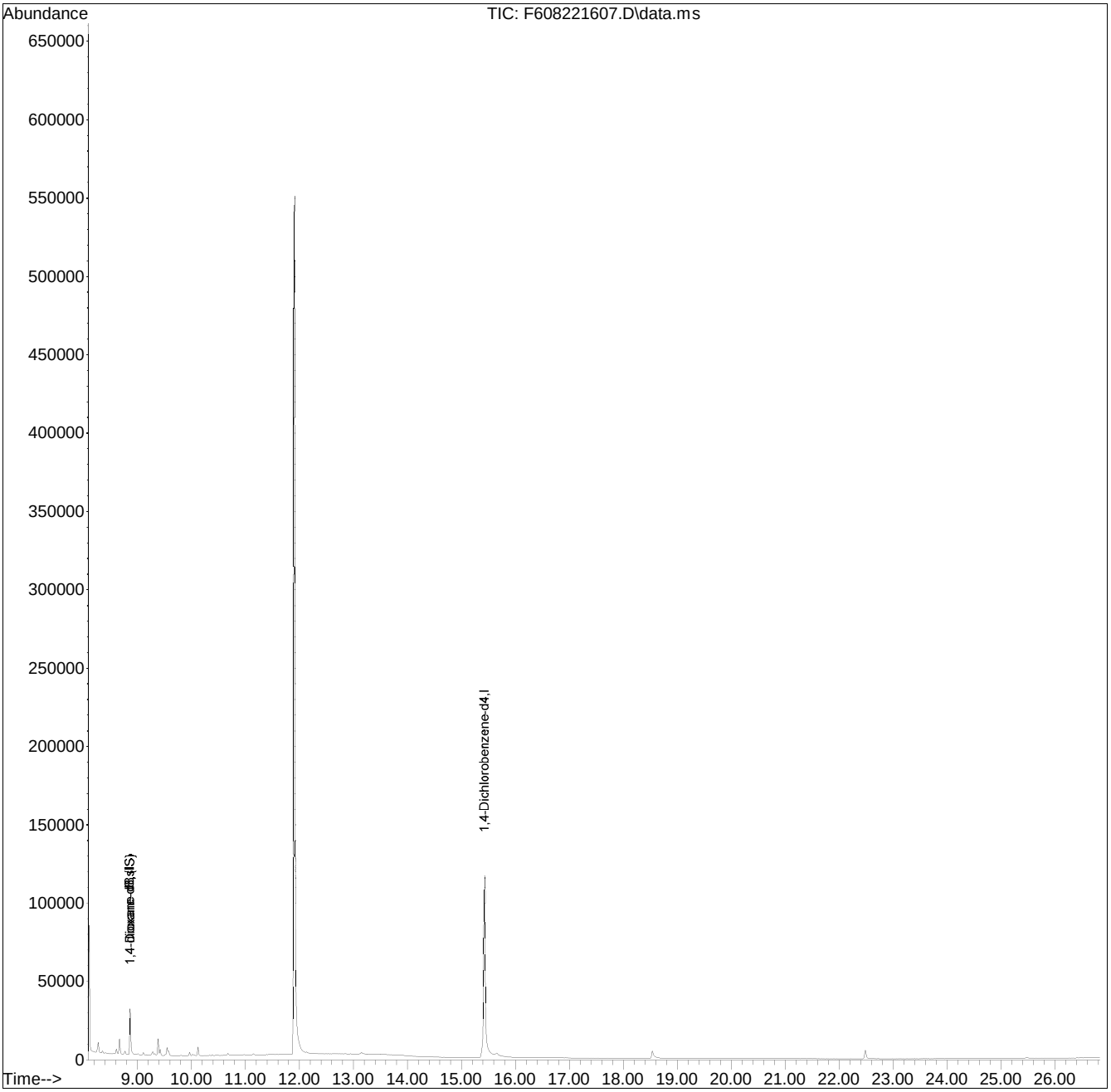
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221607.D
Acq On : 22 Aug 2016 7:21 pm
Operator : BNA6:WR
Sample : L1625892-02
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 24 15:32:14 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221608.D
Acq On : 22 Aug 2016 8:05 pm
Operator : BNA6:WR
Sample : L1625892-03
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 24 15:32:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.862	64	19014	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	163492	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.862	64	19014	134.377	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 26.88%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

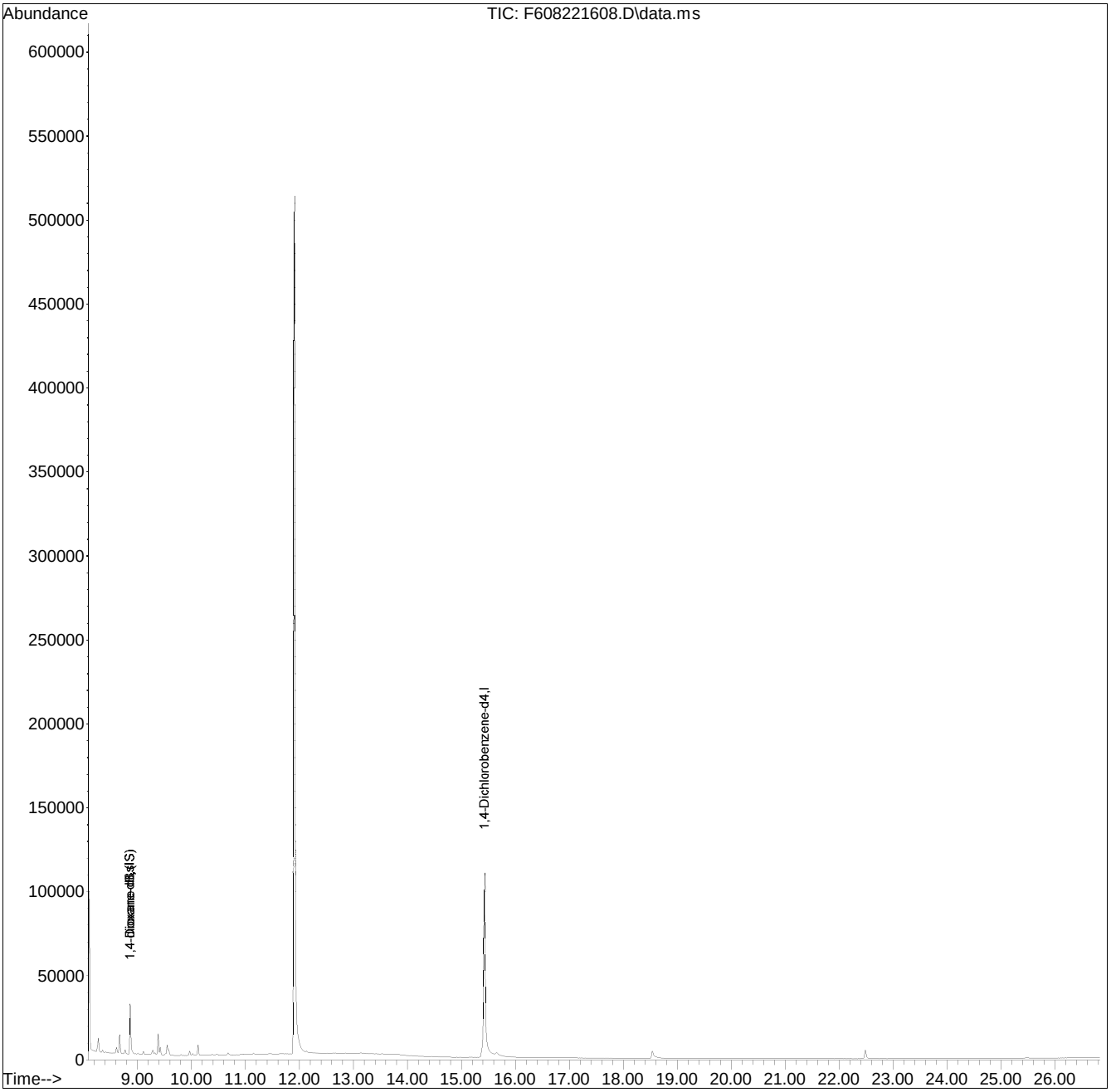
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221608.D
Acq On : 22 Aug 2016 8:05 pm
Operator : BNA6:WR
Sample : L1625892-03
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 24 15:32:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221609.D
Acq On : 22 Aug 2016 8:49 pm
Operator : BNA6:WR
Sample : L1625892-04
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 24 15:33:24 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.866	64	19060	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.426	152	159017	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.866	64	19060	138.493	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 27.70%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.947	88	1481M4	27.110	ng/mL	

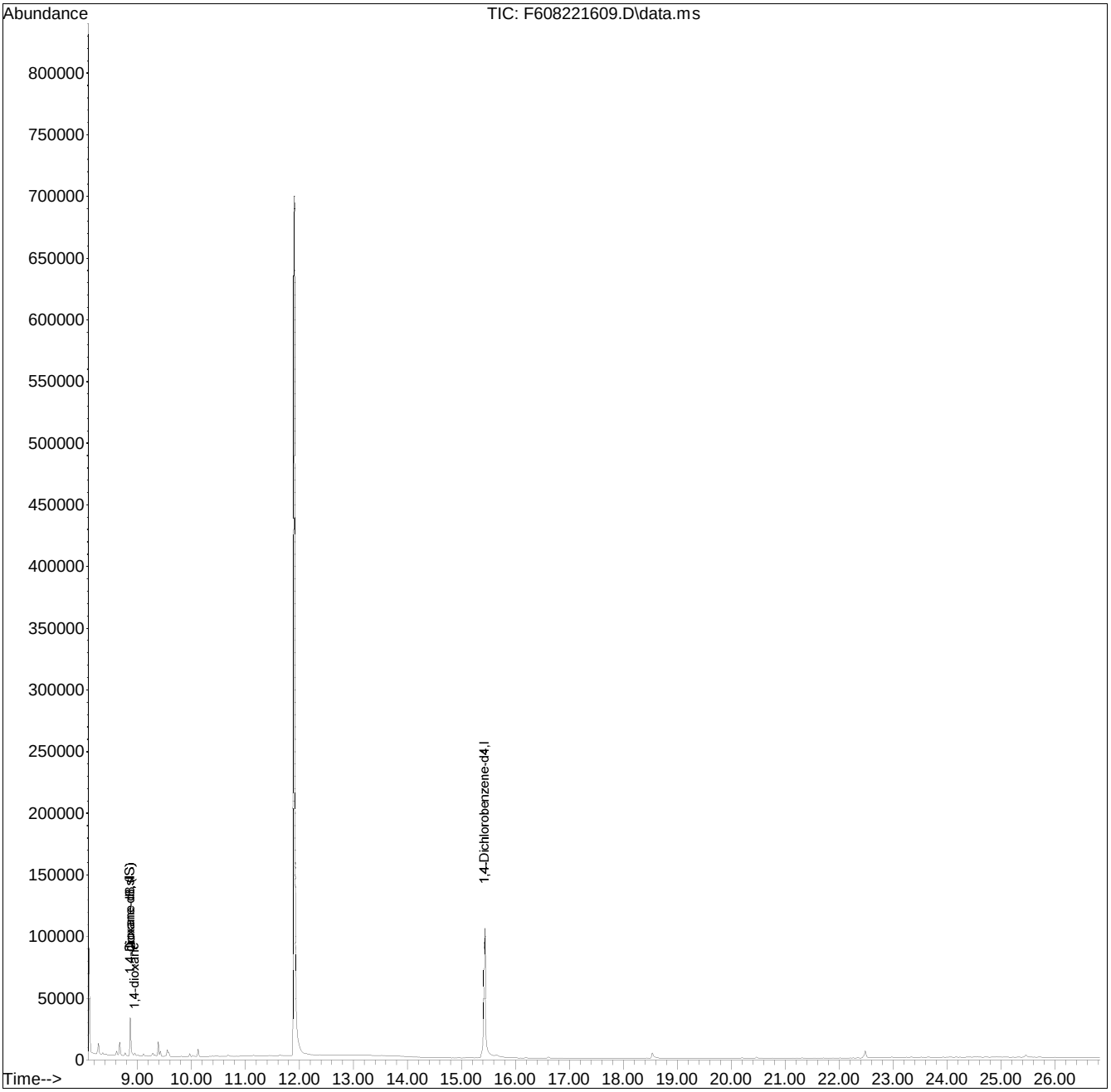
(#) = qualifier out of range (m) = manual integration (+) = signals summed

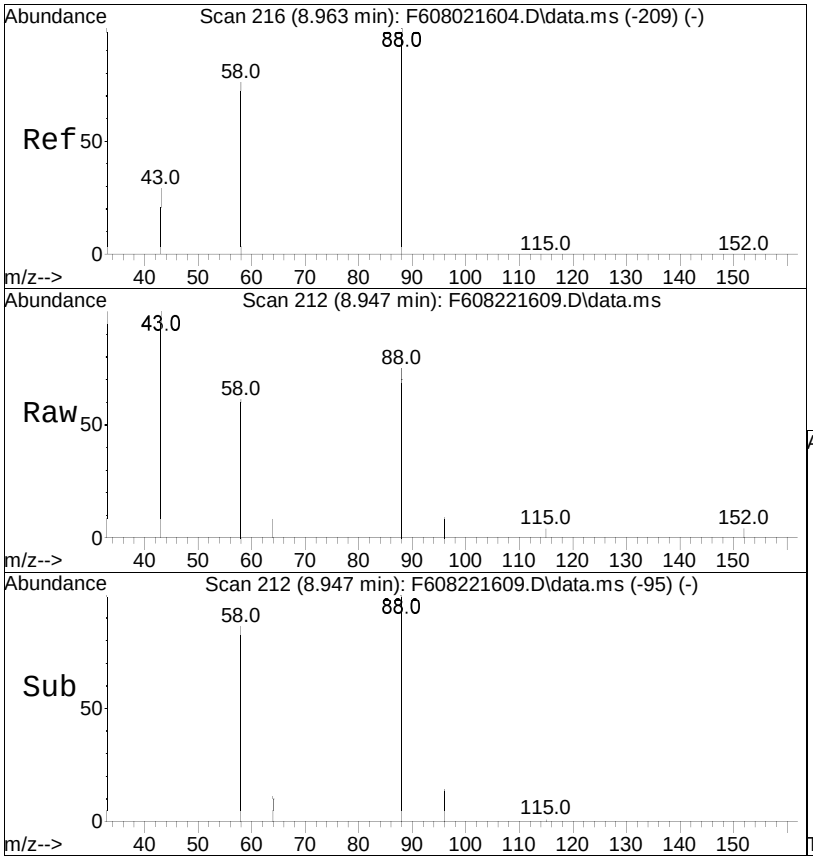
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221609.D
Acq On : 22 Aug 2016 8:49 pm
Operator : BNA6:WR
Sample : L1625892-04
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 24 15:33:24 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

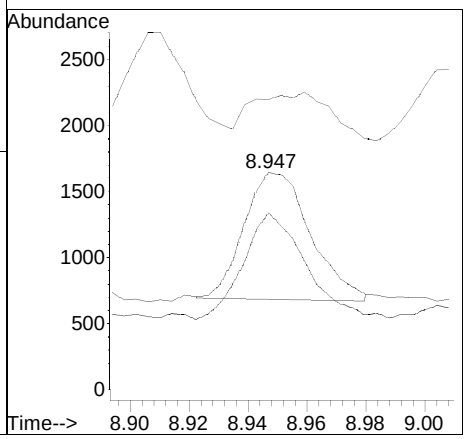




#2
1,4-dioxane
Concen: 27.11 ng/mL M4
RT: 8.947 min Scan# 212
Delta R.T. -0.024 min
Lab File: F608221609.D
Acq: 22 Aug 2016 8:49 pm

Tgt Ion: 88 Resp: 1481

Ion	Ratio	Lower	Upper
88	100		
58	79.3	62.1	93.1
43	50.8	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221610.D
Acq On : 22 Aug 2016 9:33 pm
Operator : BNA6:WR
Sample : L1625892-05
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 24 15:33:51 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.861	64	17844	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	163015	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.861	64	17844	126.477	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.30%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

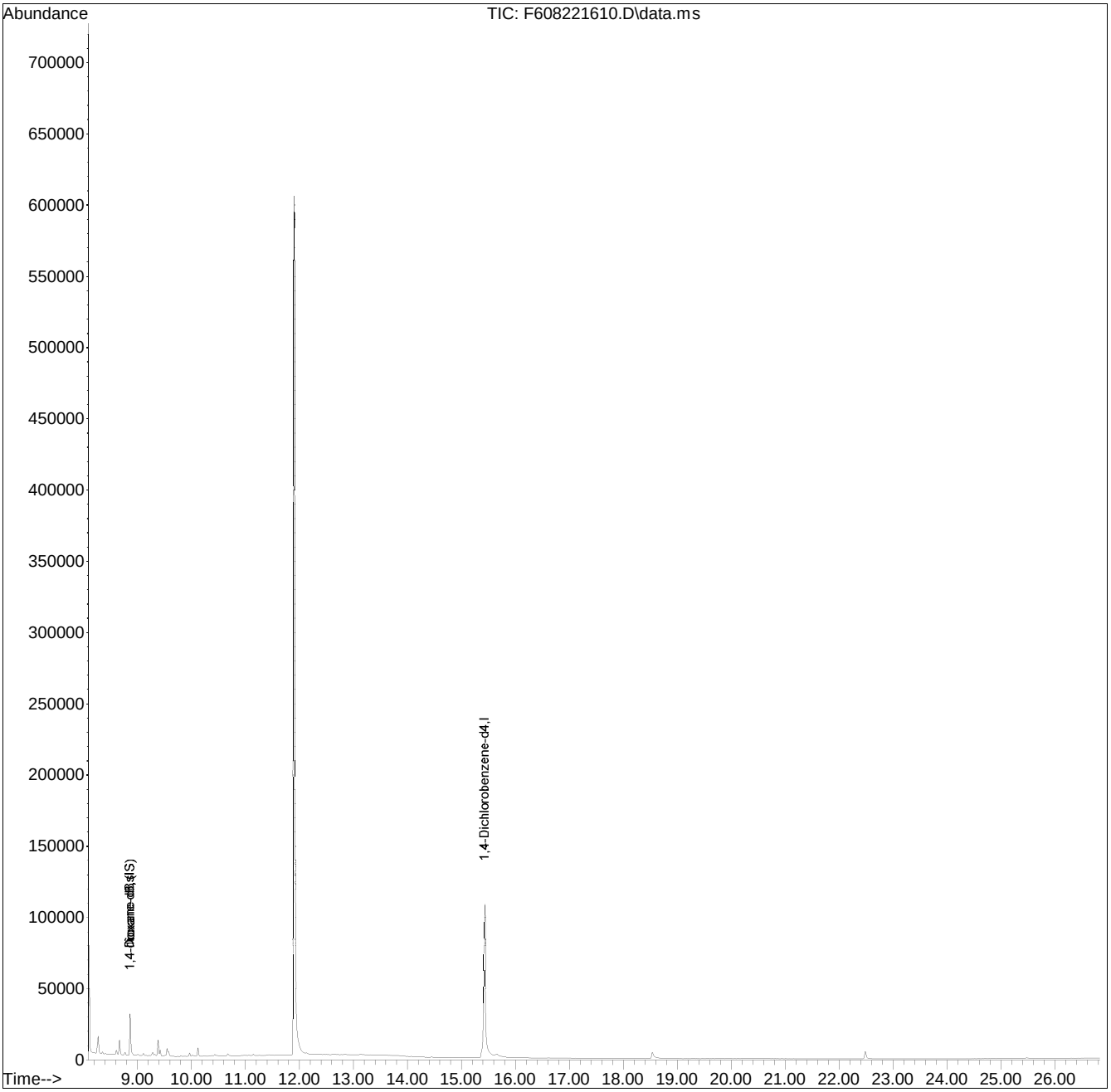
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221610.D
Acq On : 22 Aug 2016 9:33 pm
Operator : BNA6:WR
Sample : L1625892-05
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 24 15:33:51 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221611.D
Acq On : 22 Aug 2016 10:18 pm
Operator : BNA6:WR
Sample : L1625892-06
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 24 15:34:20 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

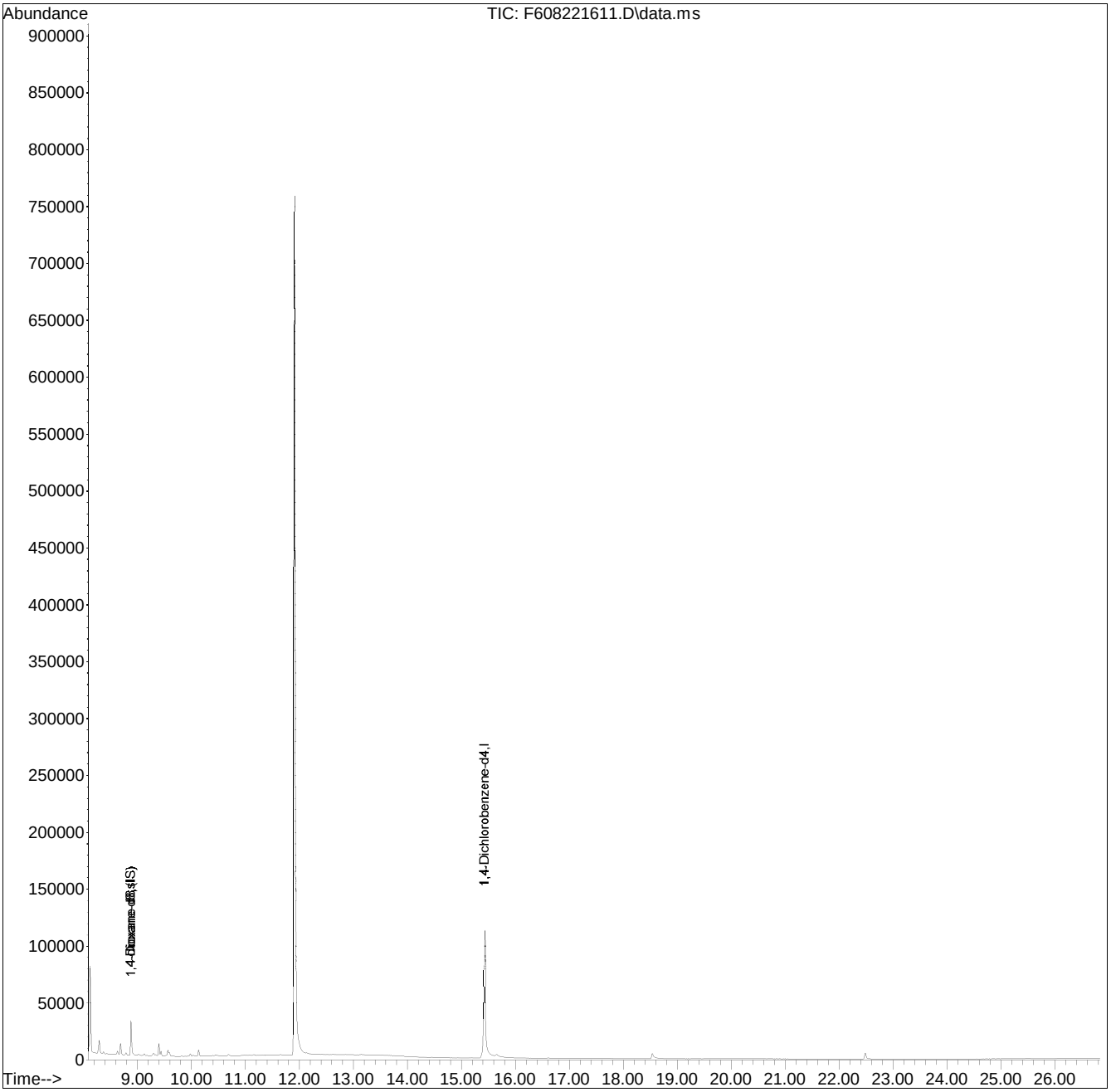
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.878	64	18599	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.422	152	167367	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.878	64	18599	128.401	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.68%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221611.D
Acq On : 22 Aug 2016 10:18 pm
Operator : BNA6:WR
Sample : L1625892-06
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 24 15:34:20 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221612.D
Acq On : 22 Aug 2016 11:01 pm
Operator : BNA6:WR
Sample : L1625892-07
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 24 15:35:02 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.862	64	17970	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	163947	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.862	64	17970	126.646	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.33%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.943	88	2132M4	41.394	ng/mL	

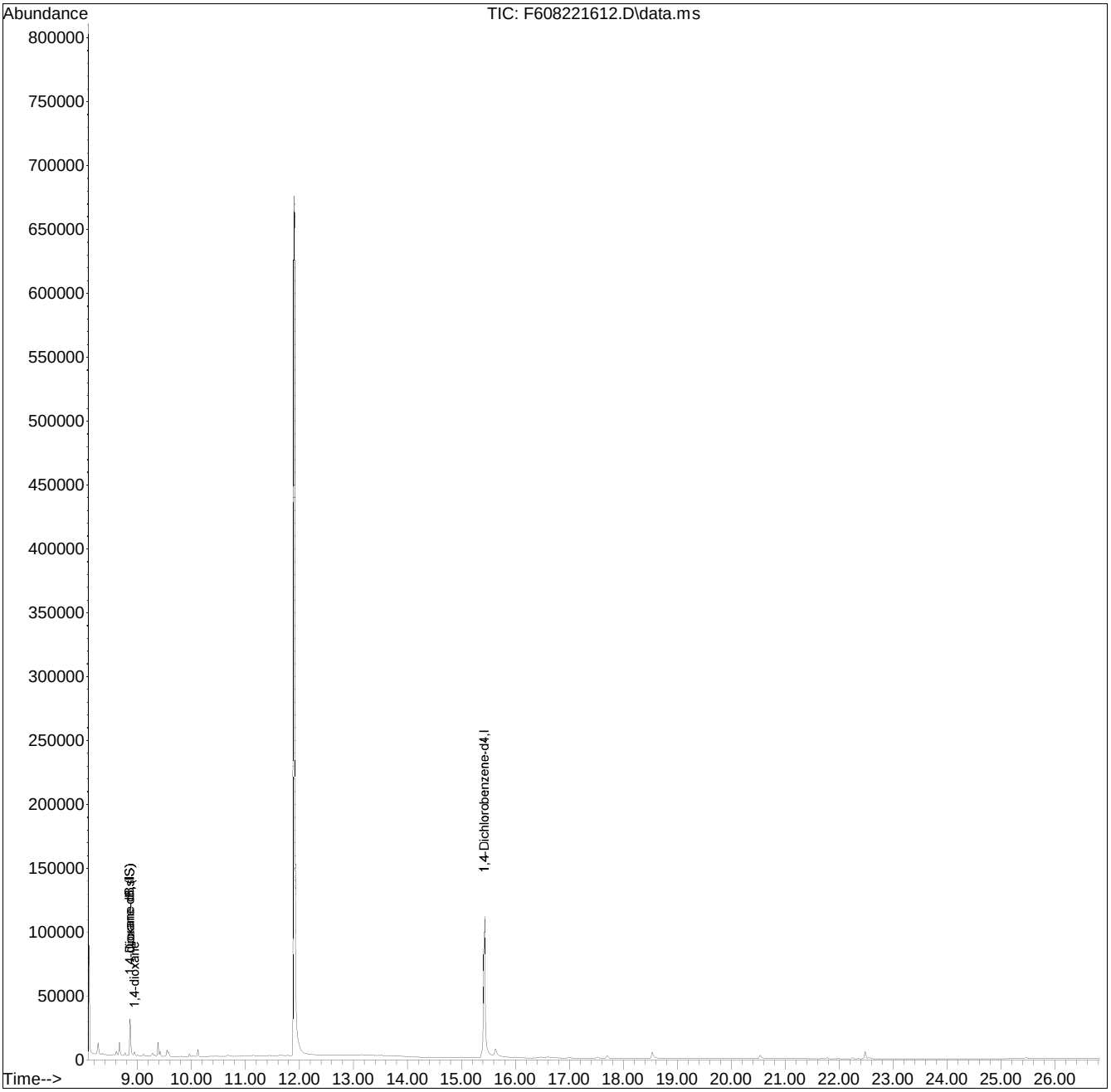
(#) = qualifier out of range (m) = manual integration (+) = signals summed

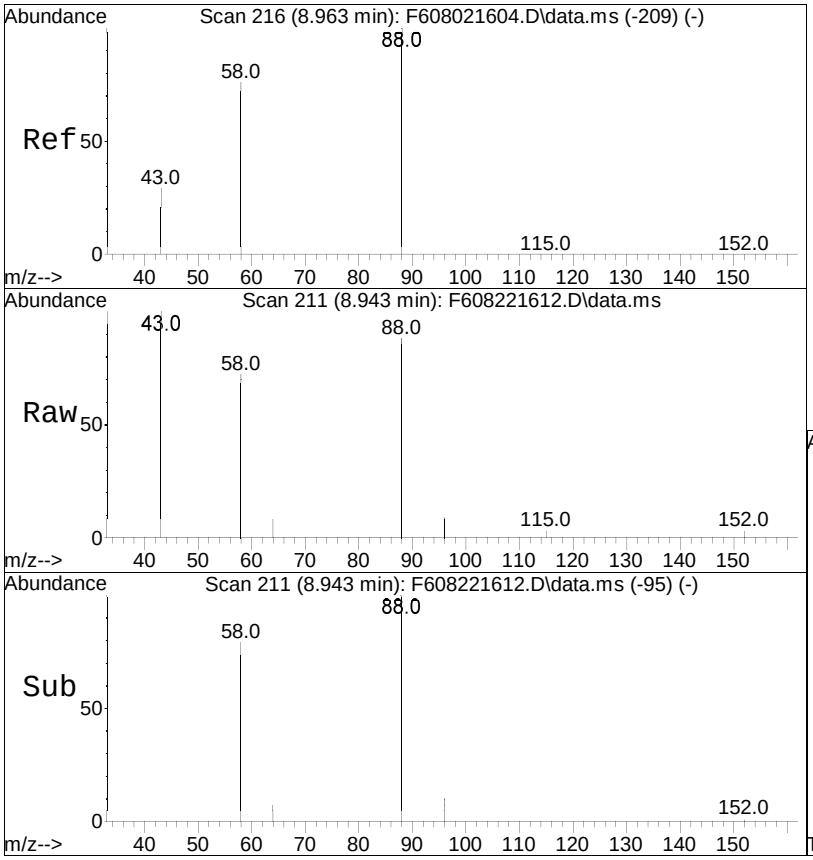
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221612.D
Acq On : 22 Aug 2016 11:01 pm
Operator : BNA6:WR
Sample : L1625892-07
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 24 15:35:02 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

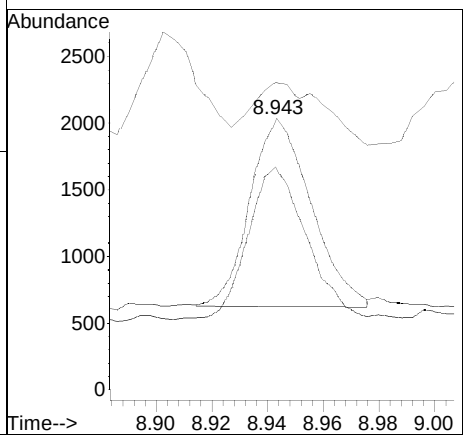




#2
1,4-dioxane
Concen: 41.39 ng/mL M4
RT: 8.943 min Scan# 211
Delta R.T. -0.028 min
Lab File: F608221612.D
Acq: 22 Aug 2016 11:01 pm

Tgt Ion: 88 Resp: 2132

Ion	Ratio	Lower	Upper
88	100		
58	76.6	62.1	93.1
43	40.1	24.4	36.6#



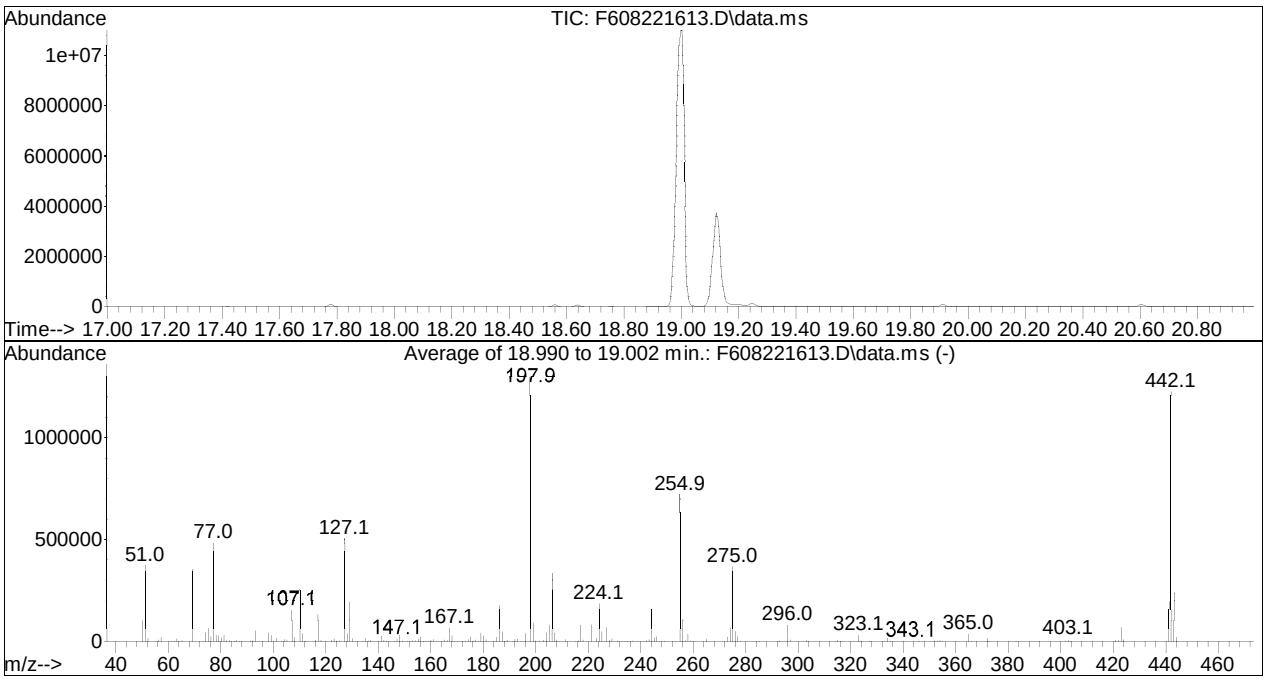
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221613.D
Acq On : 22 Aug 2016 11:42 pm
Operator : BNA6:WR
Sample : WG924876-4
Misc : WG924876,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



AutoFind: Scans 1865, 1866, 1867; Background Corrected with Scan 1851

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.7	371983	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	1886	PASS
127	198	10	80	38.8	503153	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1295491	PASS
199	198	5	9	6.8	87997	PASS
275	198	10	60	28.2	365205	PASS
365	198	1	100	2.8	36429	PASS
441	442	0.01	24	15.7	192299	PASS
442	198	50	100	94.7	1227179	PASS
443	442	15	24	19.4	237867	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221614.D
Acq On : 23 Aug 2016 12:38 am
Operator : BNA6:WR
Sample : WG924876-6
Misc : WG924876,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 23 14:38:24 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	91	-0.07
2	1,4-dioxane	1.433	1.400	2.3	87	-0.07
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	90	-0.09
4 s	1,4-dioxane-d8	0.433	0.421	2.8	90	-0.07

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221614.D
Acq On : 23 Aug 2016 12:38 am
Operator : BNA6:WR
Sample : WG924876-6
Misc : WG924876,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 23 14:38:24 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.825	64	76272	500.000	ng/mL	-0.07
3) 1,4-Dichlorobenzene-d4	15.422	152	181012	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.825	64	76272	486.862	ng/mL	-0.07
Spiked Amount 500.000	Range 15 - 115		Recovery = 97.37%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.898	88	213622	977.201	ng/mL	99

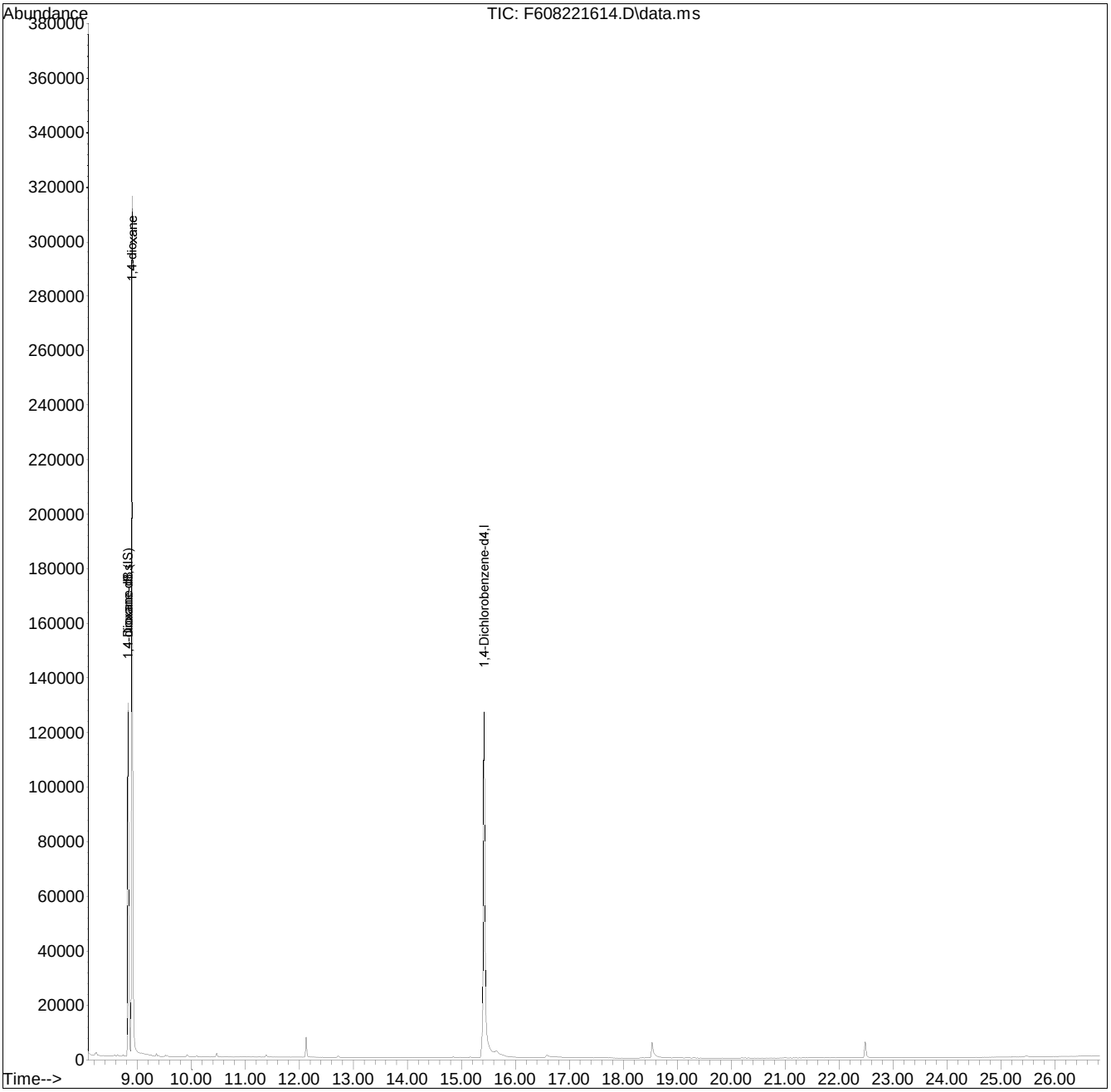
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221614.D
Acq On : 23 Aug 2016 12:38 am
Operator : BNA6:WR
Sample : WG924876-6
Misc : WG924876,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 23 14:38:24 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221615.D
Acq On : 23 Aug 2016 1:21 am
Operator : BNA6:WR
Sample : L1625892-08
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 24 15:36:52 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.866	64	20995M4	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	187742	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.866	64	20995M4	129.212	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.84%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.939	88	36656	609.161	ng/mL	99

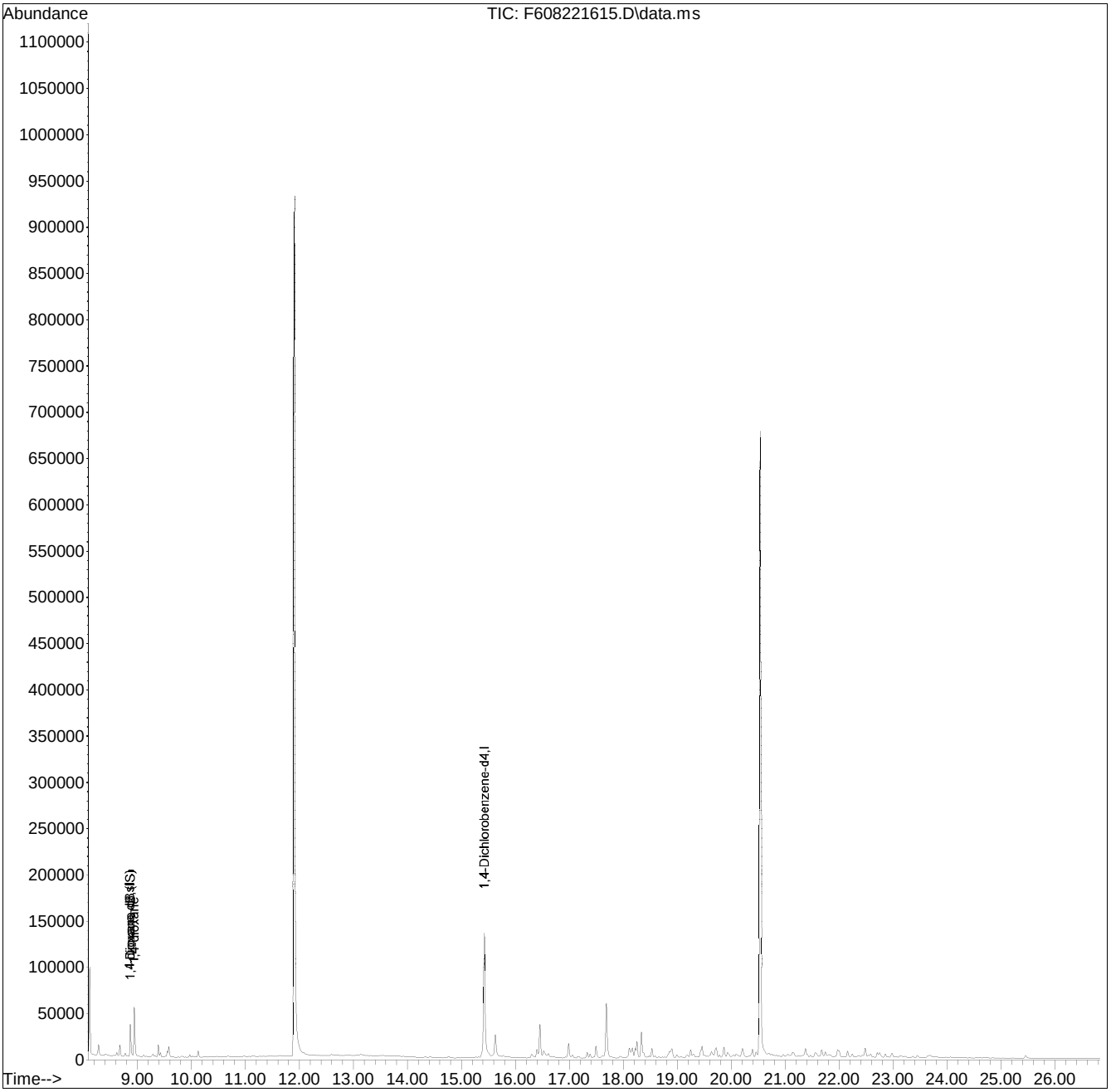
(#) = qualifier out of range (m) = manual integration (+) = signals summed

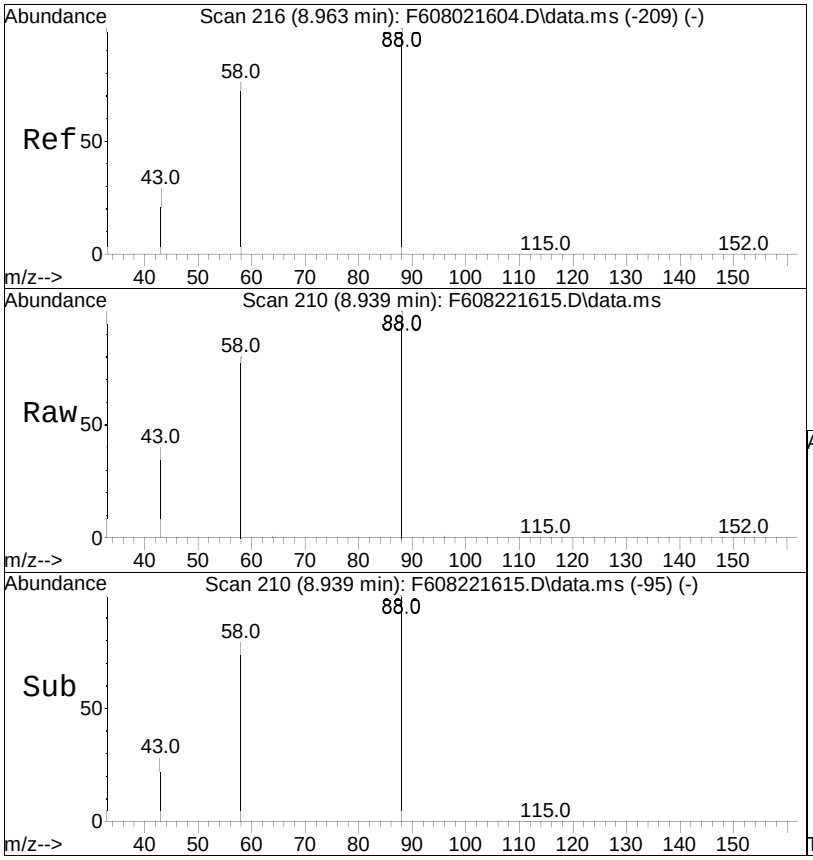
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221615.D
Acq On : 23 Aug 2016 1:21 am
Operator : BNA6:WR
Sample : L1625892-08
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 24 15:36:52 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

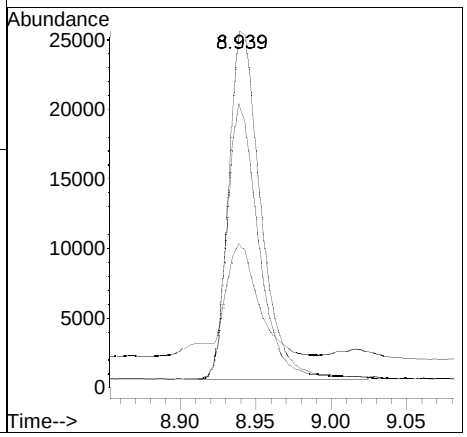




#2
1,4-dioxane
Concen: 609.16 ng/mL
RT: 8.939 min Scan# 210
Delta R.T. -0.033 min
Lab File: F608221615.D
Acq: 23 Aug 2016 1:21 am

Tgt Ion: 88 Resp: 36656

Ion	Ratio	Lower	Upper
88	100		
58	76.9	62.1	93.1
43	31.5	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221616.D
Acq On : 23 Aug 2016 2:05 am
Operator : BNA6:WR
Sample : L1625892-09
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 23 14:38:28 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.845	64	18022	500.000	ng/mL	-0.05
3) 1,4-Dichlorobenzene-d4	15.422	152	179946	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.845	64	18022	115.720	ng/mL	-0.05
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.14%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.923	88	10231	198.070	ng/mL	97

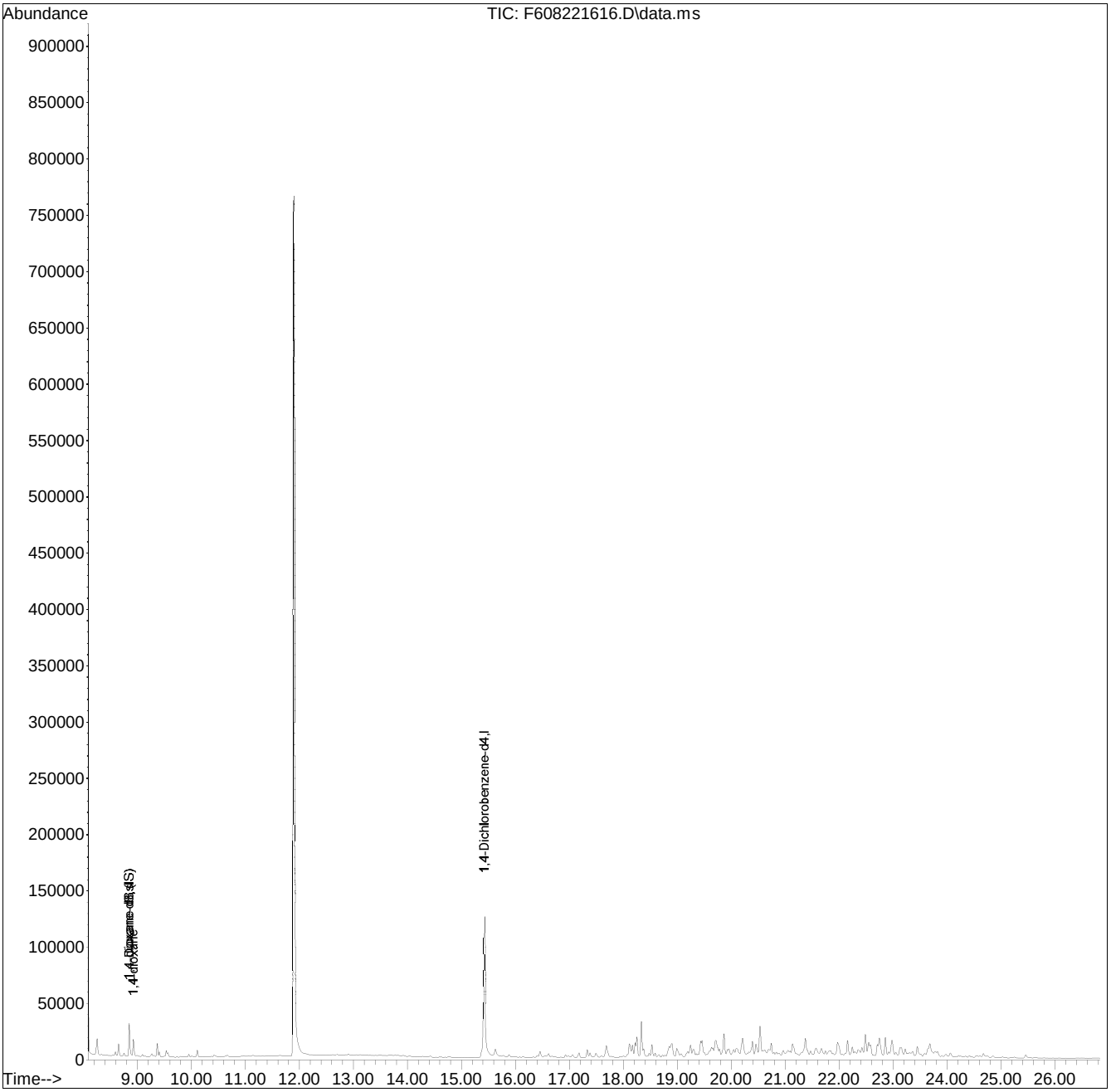
(#) = qualifier out of range (m) = manual integration (+) = signals summed

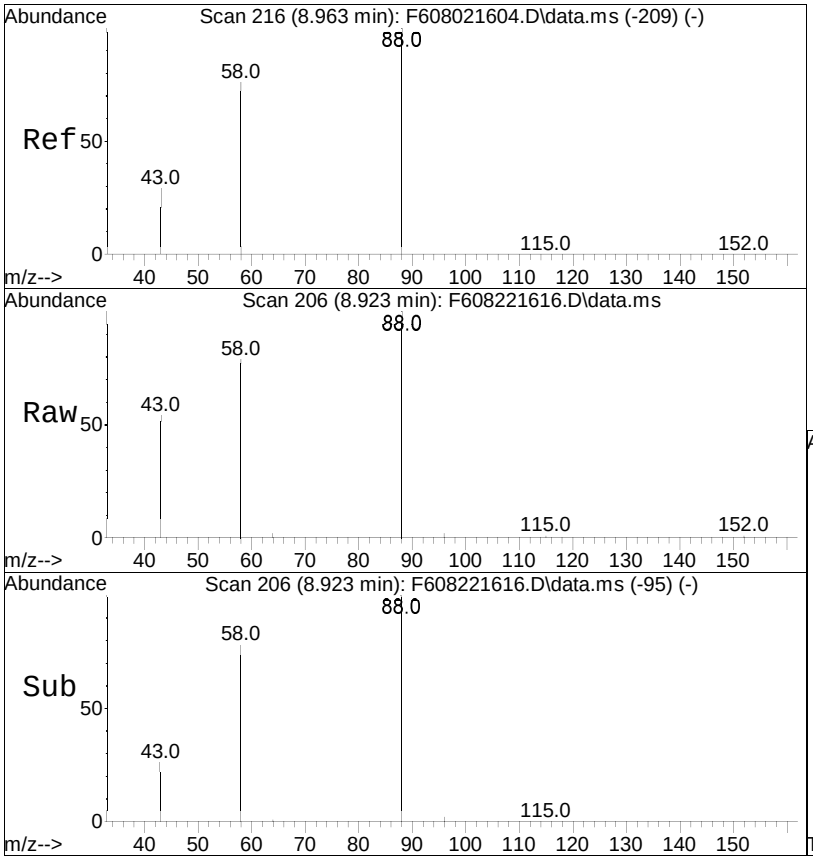
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221616.D
Acq On : 23 Aug 2016 2:05 am
Operator : BNA6:WR
Sample : L1625892-09
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 23 14:38:28 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

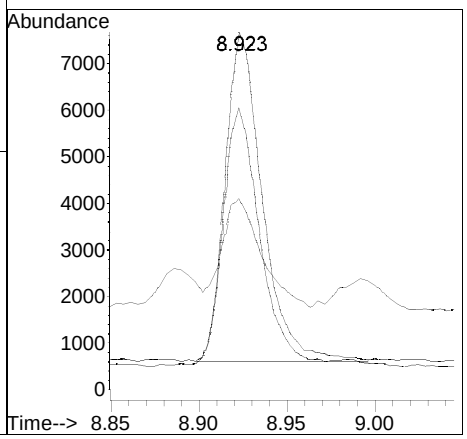




#2
1,4-dioxane
Concen: 198.07 ng/mL
RT: 8.923 min Scan# 206
Delta R.T. -0.049 min
Lab File: F608221616.D
Acq: 23 Aug 2016 2:05 am

Tgt Ion: 88 Resp: 10231

Ion	Ratio	Lower	Upper
88	100		
58	77.8	62.1	93.1
43	35.3	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221617.D
Acq On : 23 Aug 2016 2:49 am
Operator : BNA6:WR
Sample : L1625892-10
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 24 15:38:41 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.837	64	13793	500.000	ng/mL	-0.06
3) 1,4-Dichlorobenzene-d4	15.422	152	164872	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.837	64	13793	96.663	ng/mL	-0.06
Spiked Amount 500.000	Range 15 - 115		Recovery = 19.33%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.922	88	288M4	7.285	ng/mL	

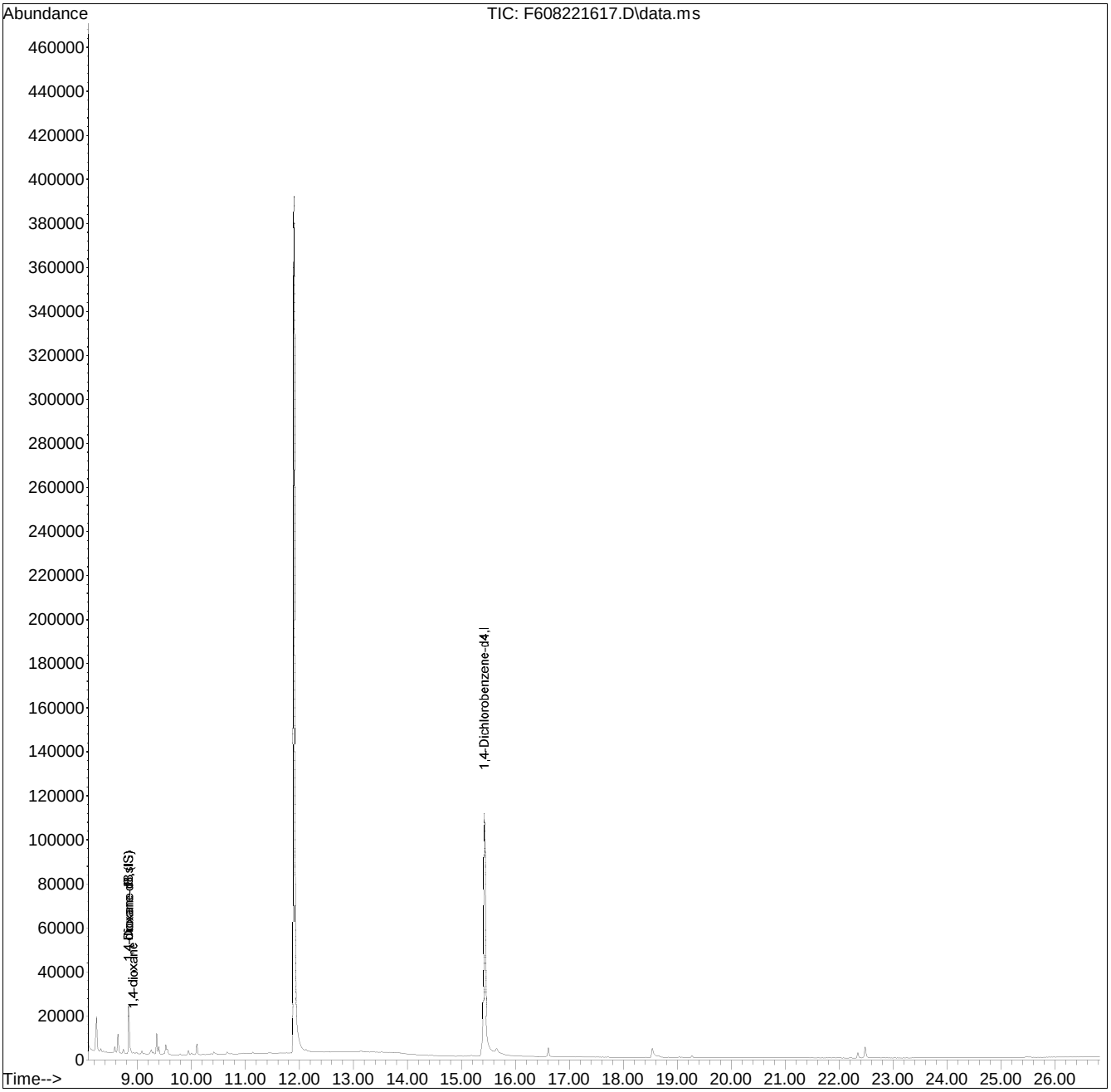
(#) = qualifier out of range (m) = manual integration (+) = signals summed

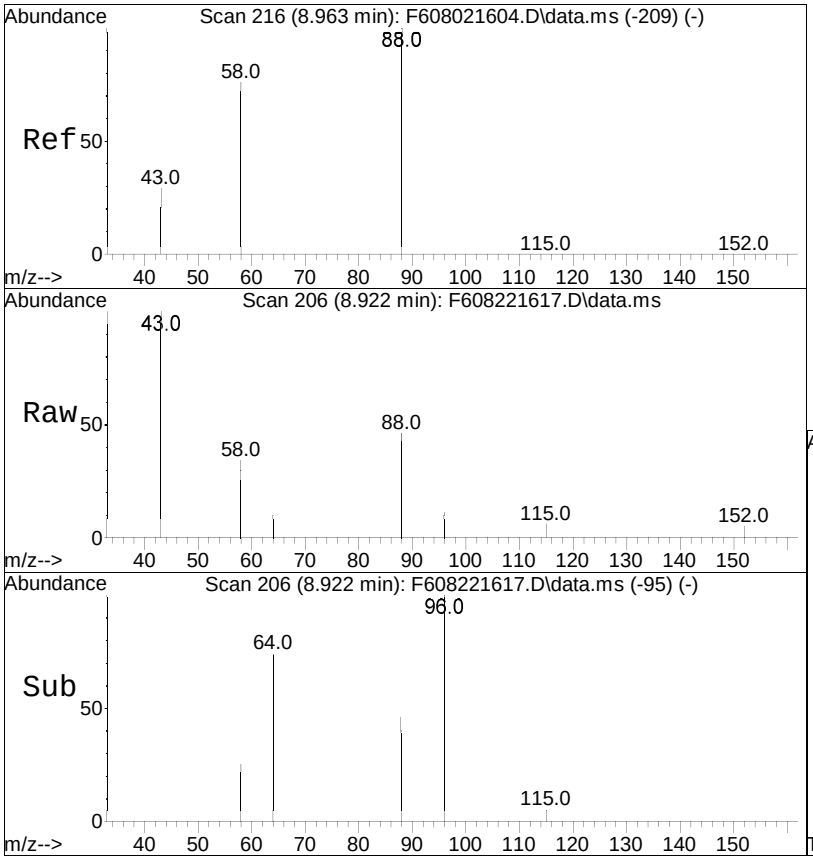
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221617.D
Acq On : 23 Aug 2016 2:49 am
Operator : BNA6:WR
Sample : L1625892-10
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 24 15:38:41 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

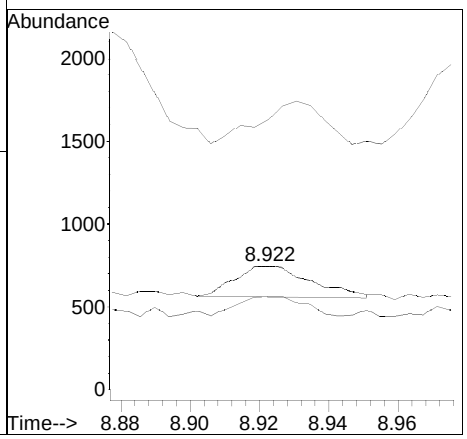




#2
1,4-dioxane
Concen: 7.29 ng/mL M4
RT: 8.922 min Scan# 206
Delta R.T. -0.049 min
Lab File: F608221617.D
Acq: 23 Aug 2016 2:49 am

Tgt Ion: 88 Resp: 288

Ion	Ratio	Lower	Upper
88	100		
58	51.7	62.1	93.1#
43	128.8	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221618.D
Acq On : 23 Aug 2016 3:33 am
Operator : BNA6:WR
Sample : L1625892-11
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 23 14:38:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.874	64	19359	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.422	152	184157	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.874	64	19359	121.463	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.29%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.947	88	35901	647.033	ng/mL	98

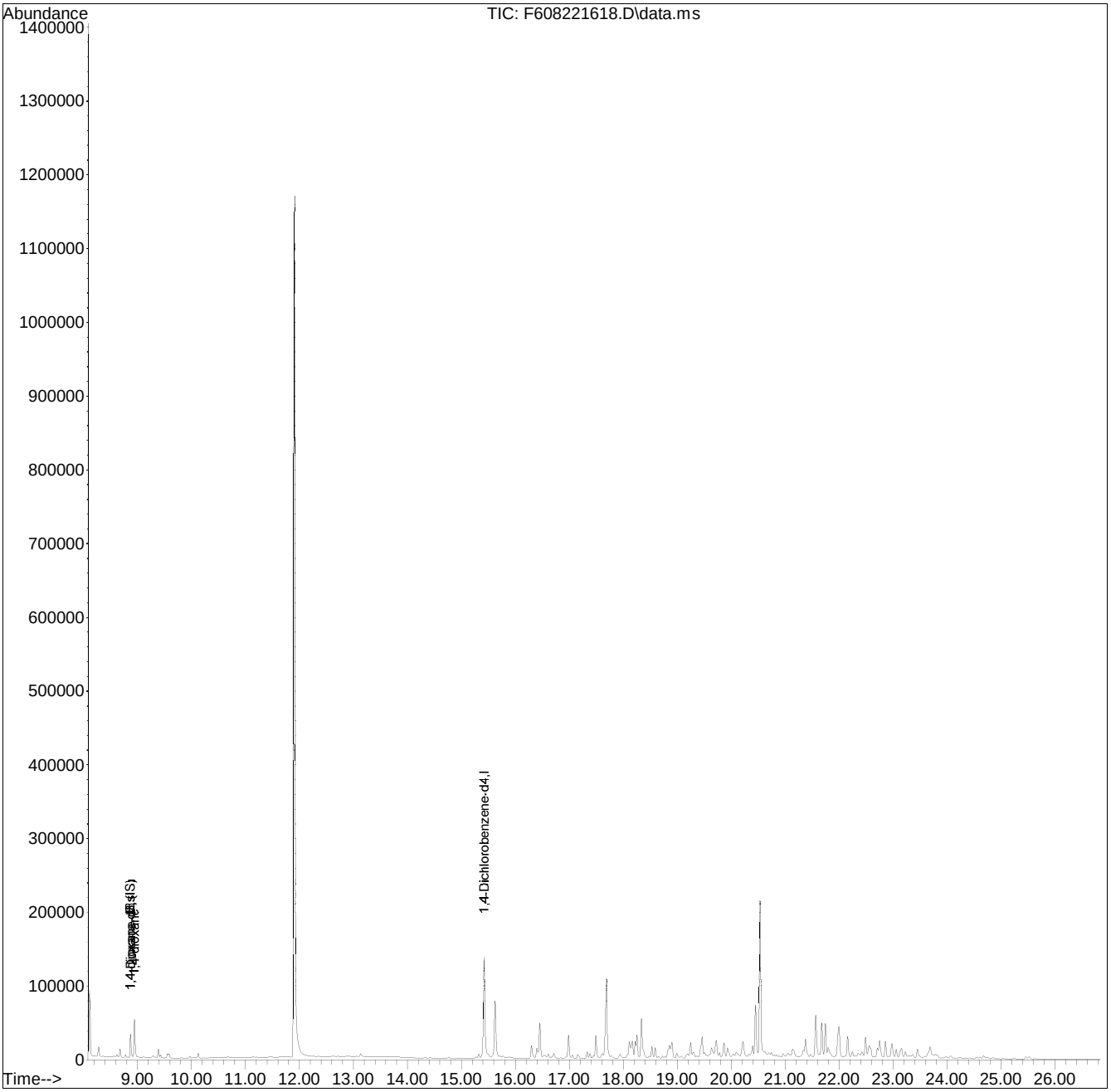
(#) = qualifier out of range (m) = manual integration (+) = signals summed

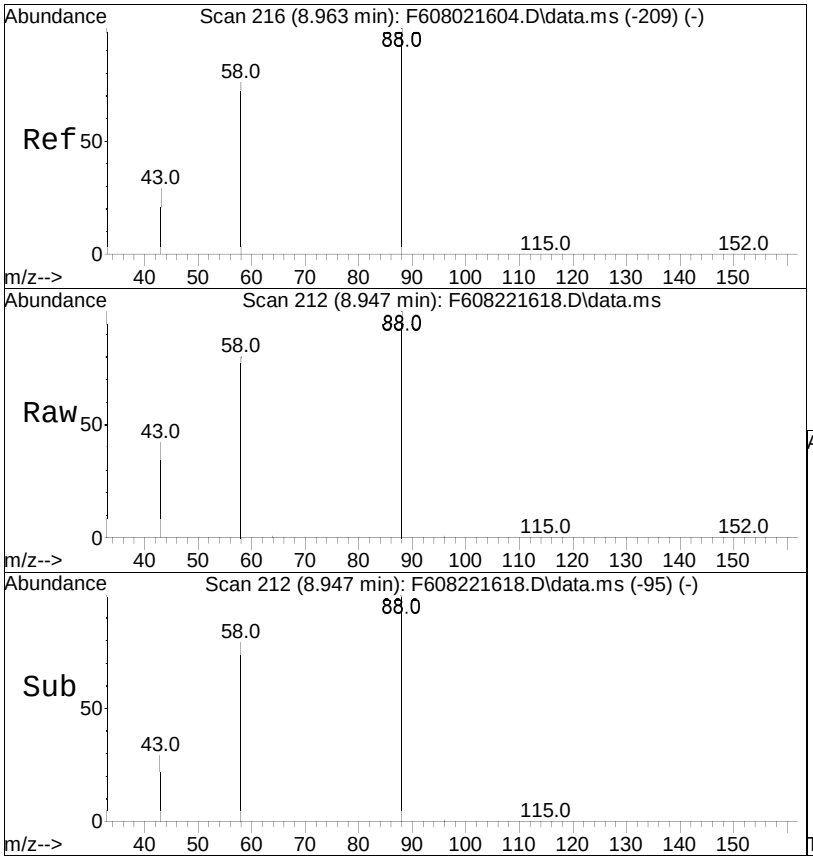
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221618.D
Acq On : 23 Aug 2016 3:33 am
Operator : BNA6:WR
Sample : L1625892-11
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 23 14:38:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

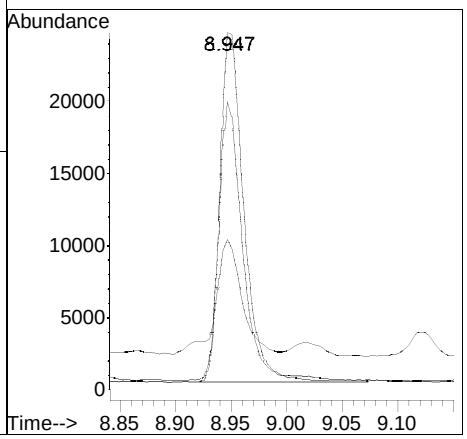




#2
1,4-dioxane
Concen: 647.03 ng/mL
RT: 8.947 min Scan# 212
Delta R.T. -0.024 min
Lab File: F608221618.D
Acq: 23 Aug 2016 3:33 am

Tgt Ion: 88 Resp: 35901

Ion	Ratio	Lower	Upper
88	100		
58	76.8	62.1	93.1
43	32.9	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221619.D
Acq On : 23 Aug 2016 4:16 am
Operator : BNA6:WR
Sample : L1625892-12
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 23 14:38:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

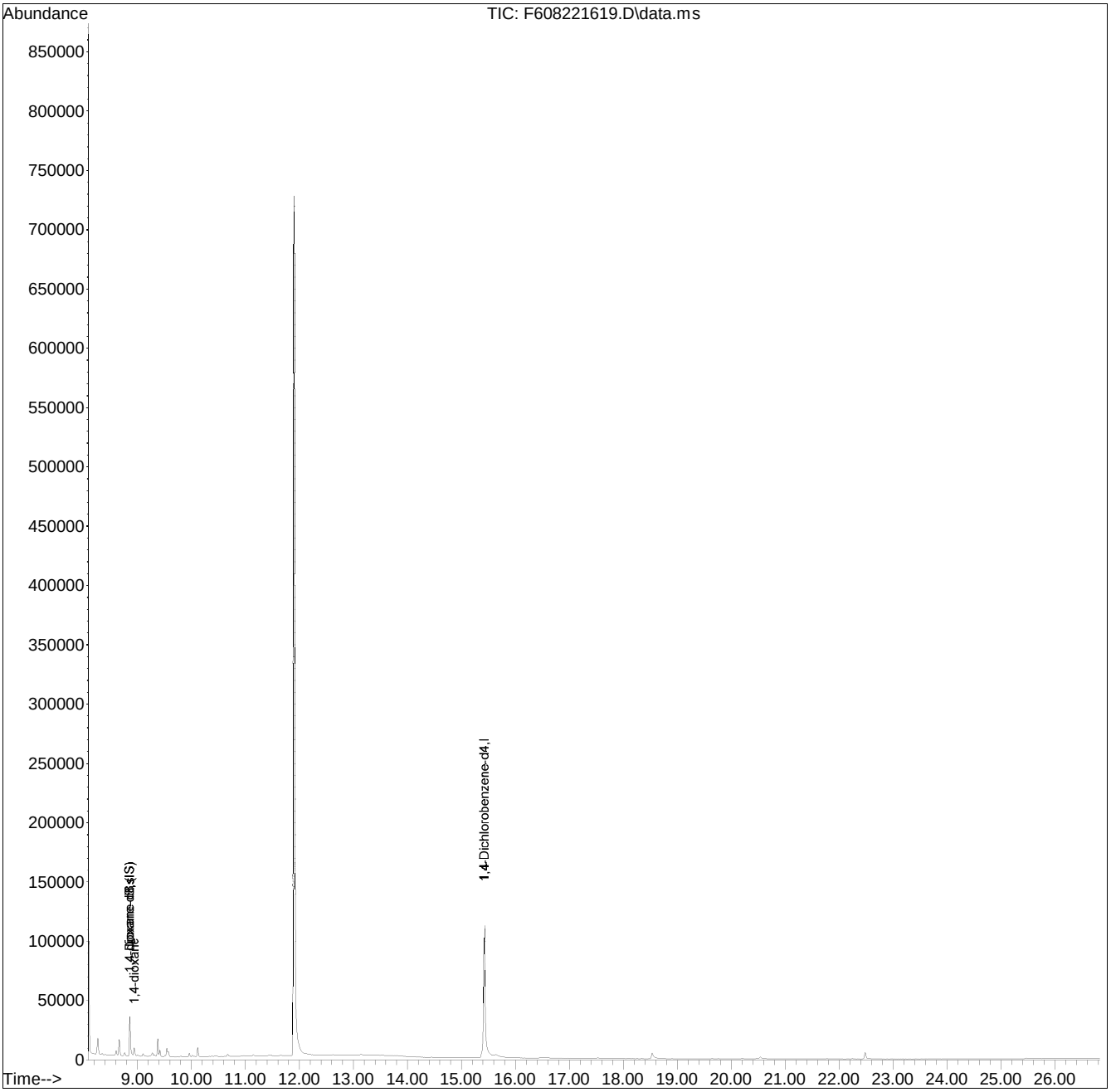
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.857	64	20529	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	164125	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.857	64	20529	144.525	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 28.91%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.939	88	4962	84.332	ng/mL#	93

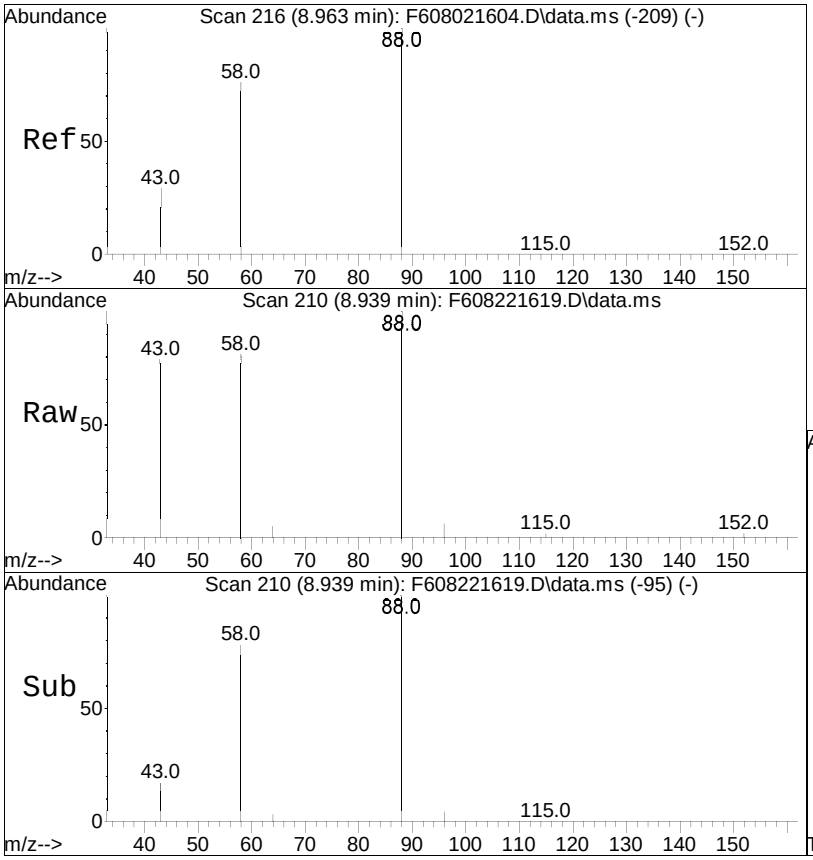
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221619.D
Acq On : 23 Aug 2016 4:16 am
Operator : BNA6:WR
Sample : L1625892-12
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 23 14:38:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

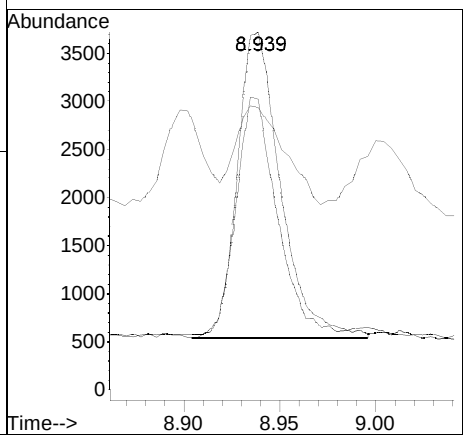




#2
1,4-dioxane
Concen: 84.33 ng/mL
RT: 8.939 min Scan# 210
Delta R.T. -0.032 min
Lab File: F608221619.D
Acq: 23 Aug 2016 4:16 am

Tgt Ion: 88 Resp: 4962

Ion	Ratio	Lower	Upper
88	100		
58	75.4	62.1	93.1
43	39.8	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221620.D
Acq On : 23 Aug 2016 5:00 am
Operator : BNA6:WR
Sample : L1625892-13
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 24 15:40:21 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

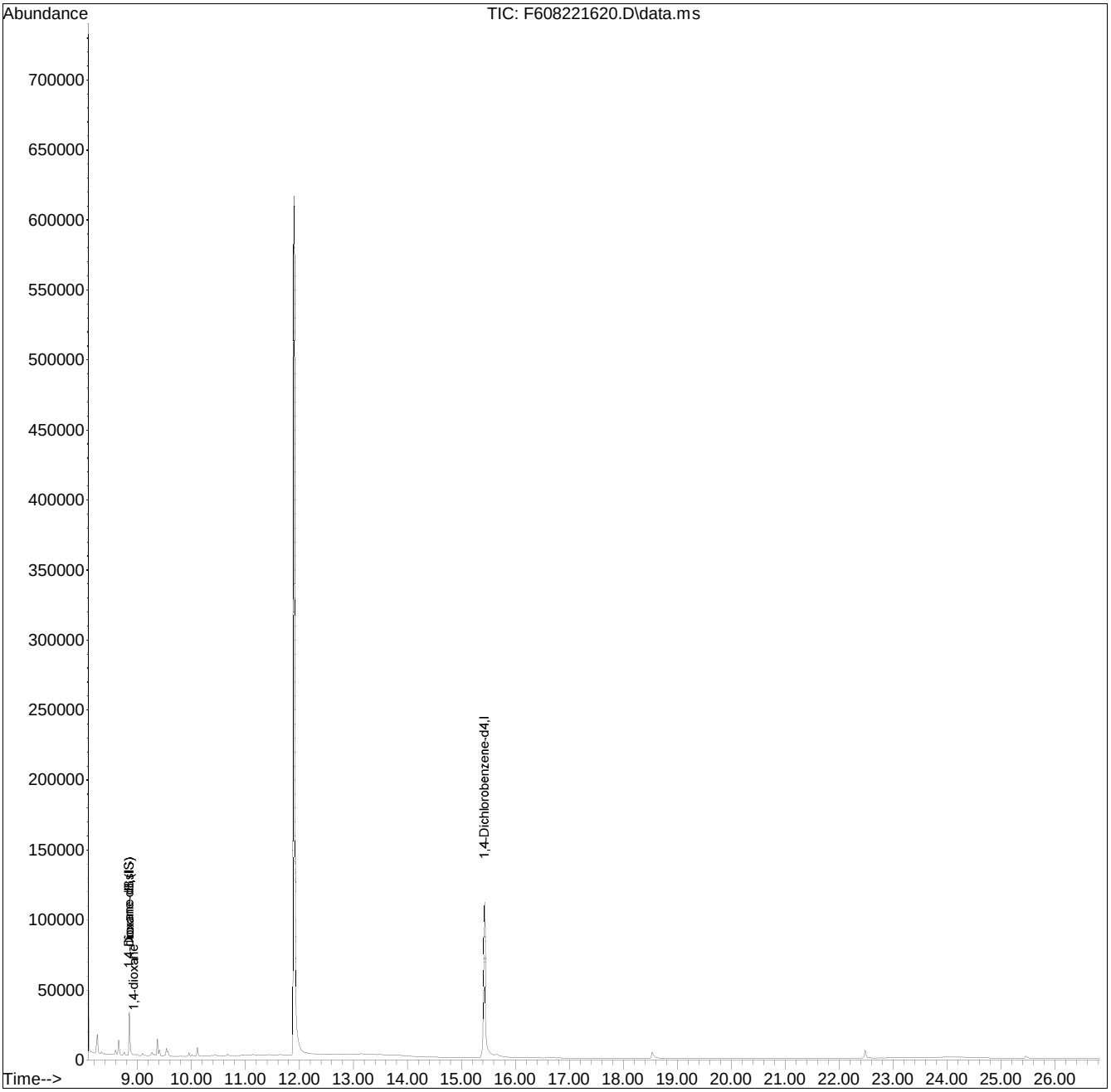
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.849	64	19382	500.000	ng/mL	-0.05
3) 1,4-Dichlorobenzene-d4	15.422	152	164279	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.849	64	19382	136.322	ng/mL	-0.05
Spiked Amount 500.000	Range 15 - 115		Recovery = 27.26%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.931	88	430M4	7.741	ng/mL	

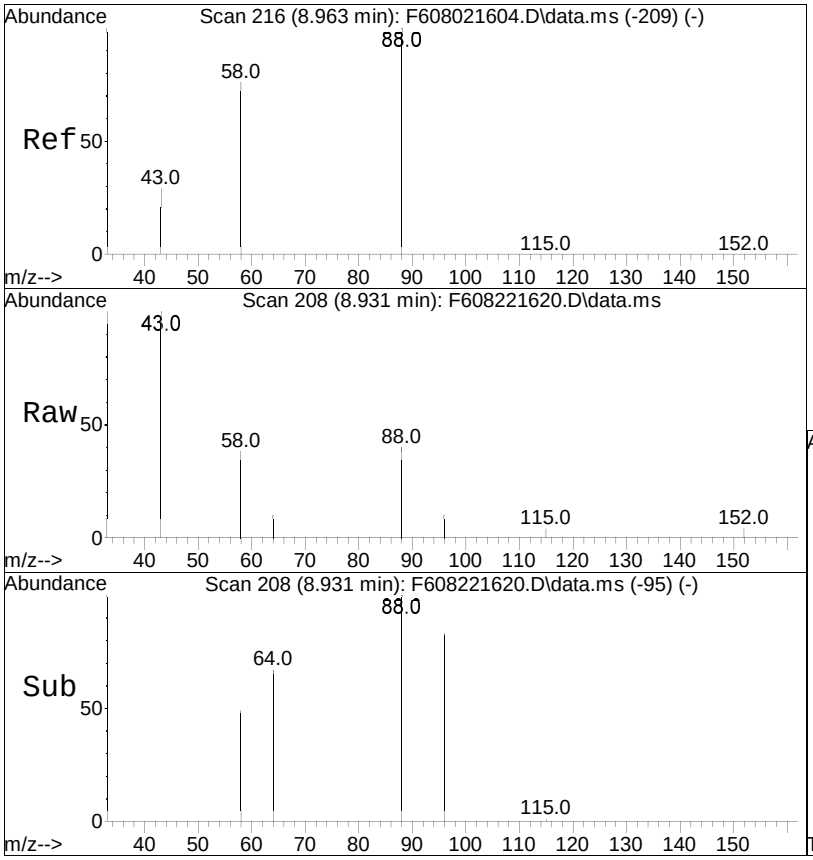
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221620.D
Acq On : 23 Aug 2016 5:00 am
Operator : BNA6:WR
Sample : L1625892-13
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 24 15:40:21 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

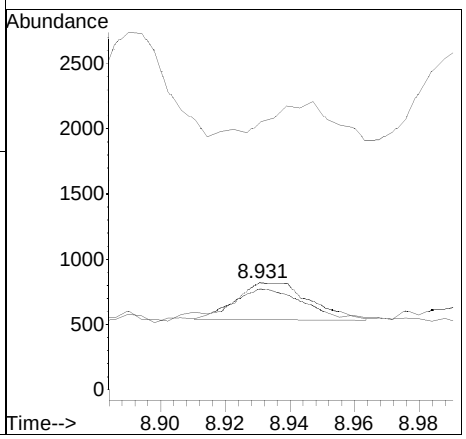




#2
1,4-dioxane
Concen: 7.74 ng/mL M4
RT: 8.931 min Scan# 208
Delta R.T. -0.040 min
Lab File: F608221620.D
Acq: 23 Aug 2016 5:00 am

Tgt Ion: 88 Resp: 430

Ion	Ratio	Lower	Upper
88	100		
58	65.1	62.1	93.1
43	99.5	24.4	36.6#



Batch Quality Control

Method Blank
Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221603.D
Acq On : 22 Aug 2016 4:25 pm
Operator : BNA6:WR
Sample : WG924460-1
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 24 14:17:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.874	64	22080	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.418	152	182484	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.874	64	22080	139.805	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 27.96%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

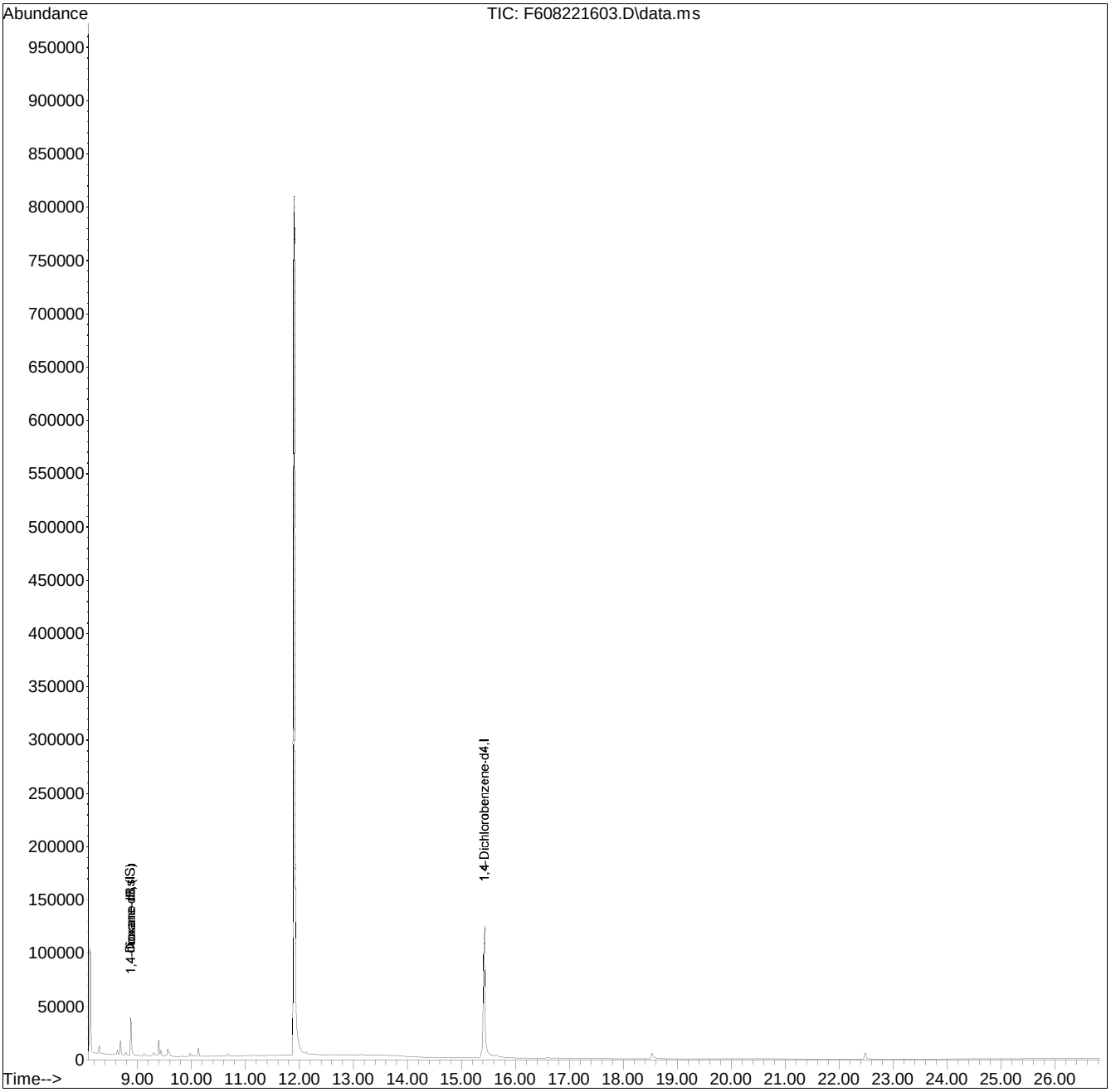
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221603.D
Acq On : 22 Aug 2016 4:25 pm
Operator : BNA6:WR
Sample : WG924460-1
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 24 14:17:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221604.D
Acq On : 22 Aug 2016 5:09 pm
Operator : BNA6:WR
Sample : WG924460-2
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 23 14:38:06 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	23126	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.422	152	188009	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	23126	142.125	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 28.43%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.967	88	36588	552.003	ng/mL	96

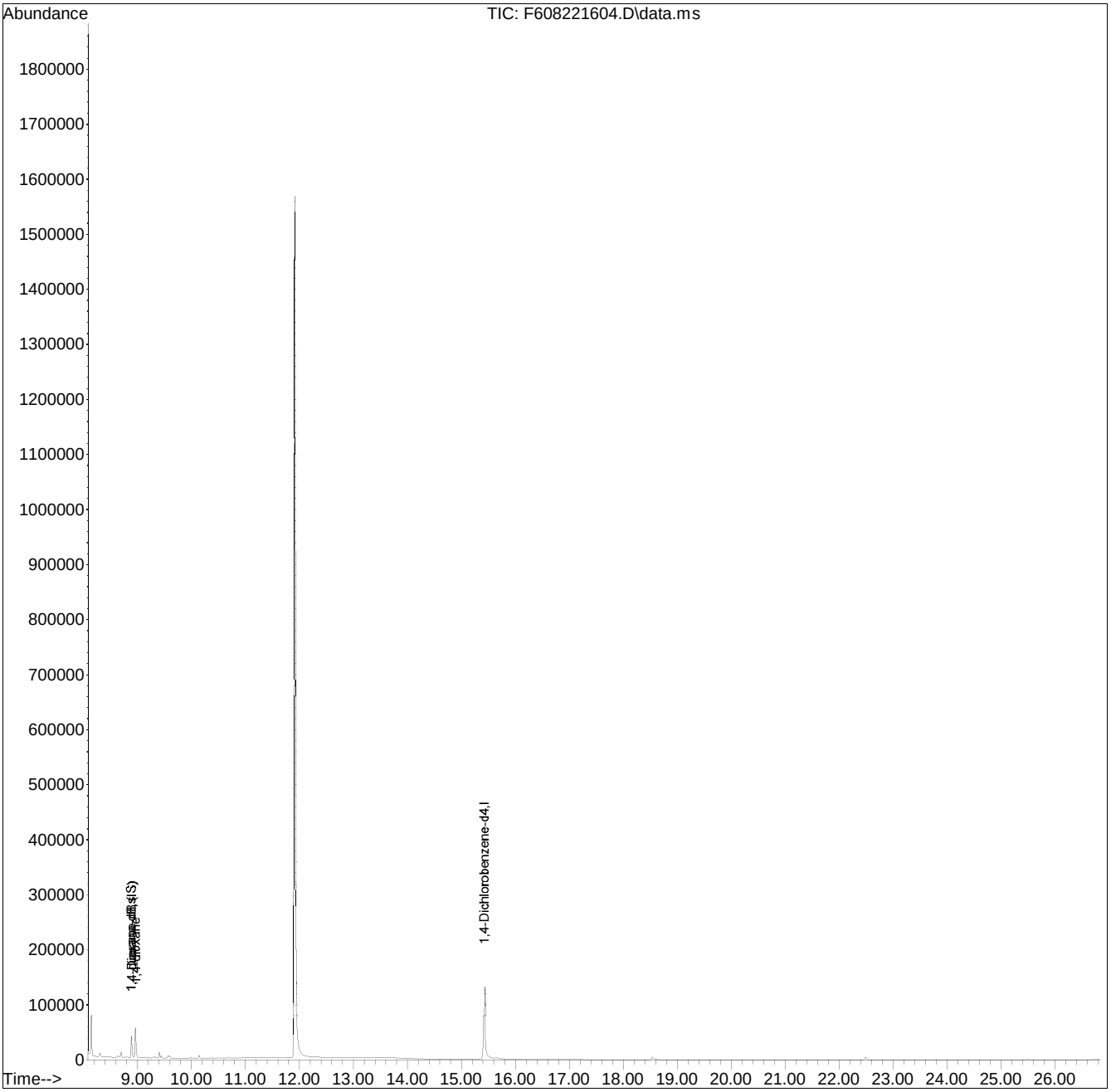
(#) = qualifier out of range (m) = manual integration (+) = signals summed

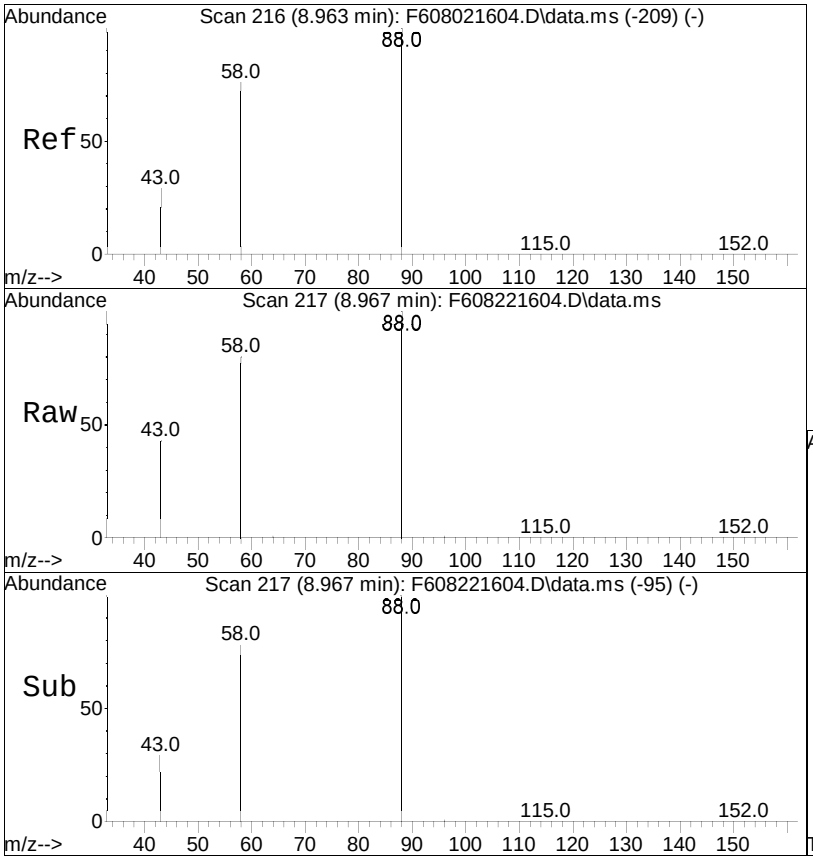
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221604.D
Acq On : 22 Aug 2016 5:09 pm
Operator : BNA6:WR
Sample : WG924460-2
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 23 14:38:06 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

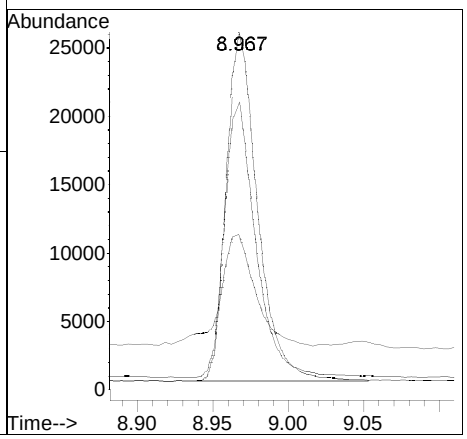




#2
1,4-dioxane
Concen: 552.00 ng/mL
RT: 8.967 min Scan# 217
Delta R.T. -0.004 min
Lab File: F608221604.D
Acq: 22 Aug 2016 5:09 pm

Tgt Ion: 88 Resp: 36588

Ion	Ratio	Lower	Upper
88	100		
58	78.8	62.1	93.1
43	35.8	24.4	36.6



LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221605.D
Acq On : 22 Aug 2016 5:53 pm
Operator : BNA6:WR
Sample : WG924460-3
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 23 14:38:08 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

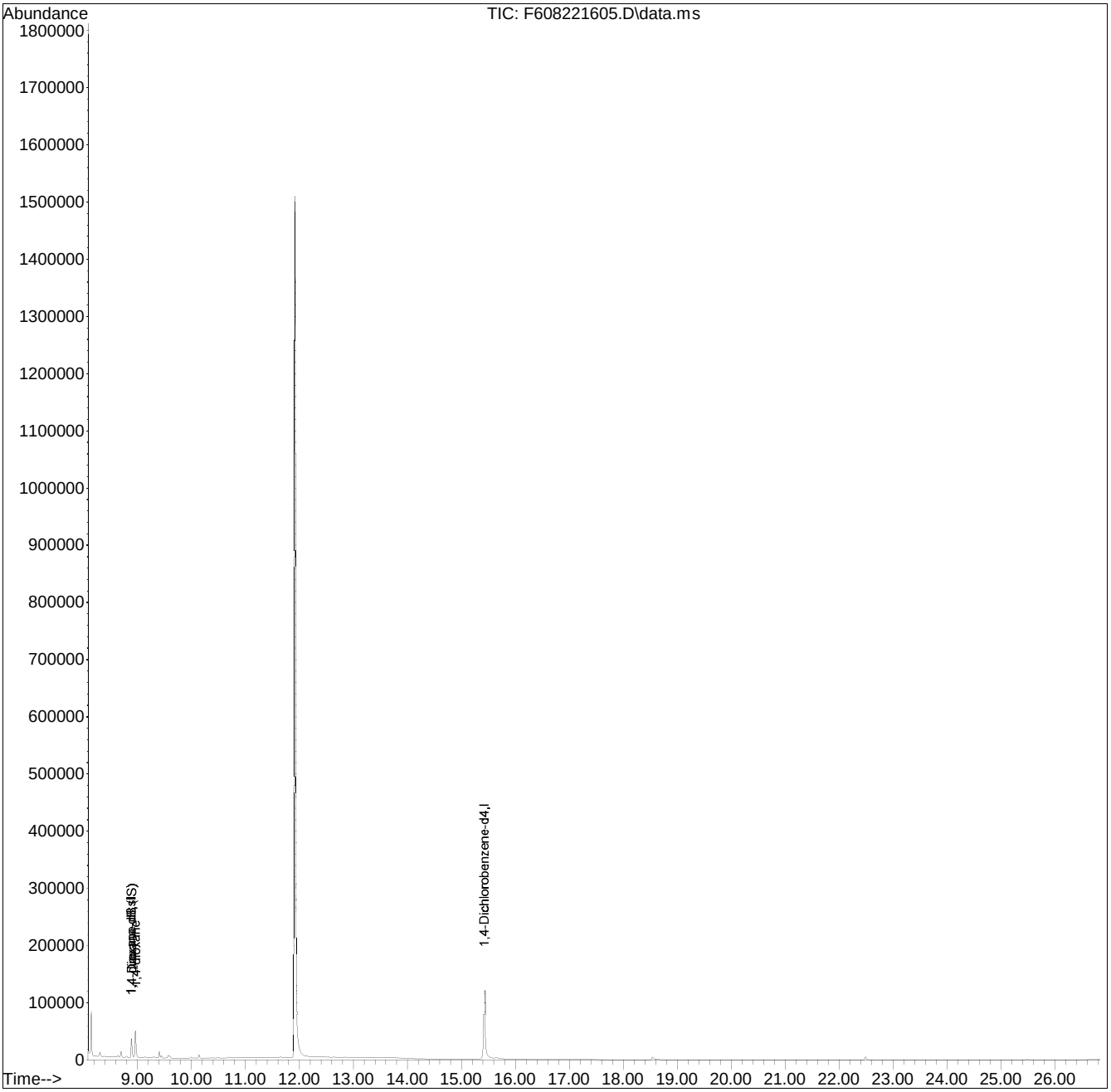
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	19982	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.426	152	171428	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	19982	134.681	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 26.94%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.967	88	32121	560.858	ng/mL	98

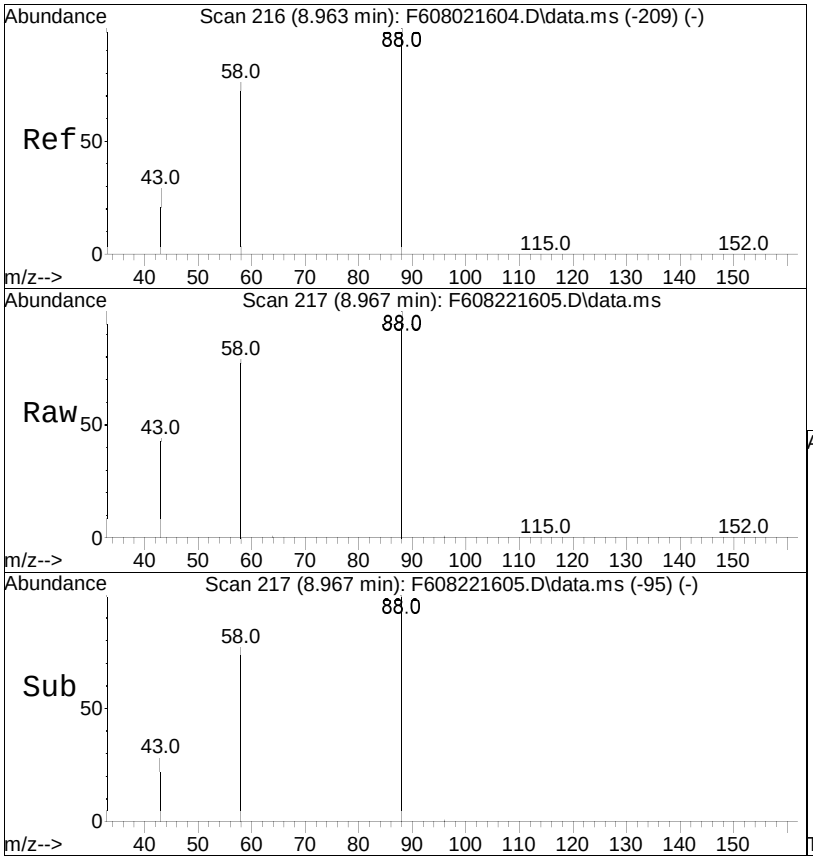
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug22\
Data File : F608221605.D
Acq On : 22 Aug 2016 5:53 pm
Operator : BNA6:WR
Sample : WG924460-3
Misc : WG924876,WG924460,ICAL12751
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 23 14:38:08 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug22\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

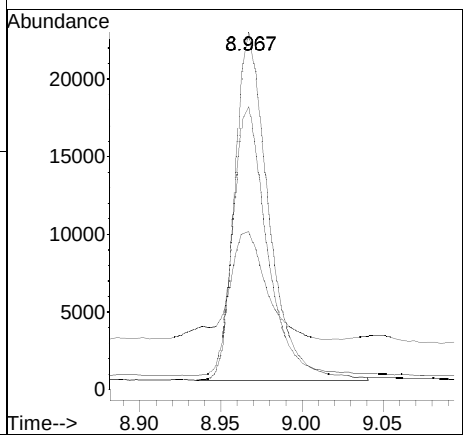




#2
1,4-dioxane
Concen: 560.86 ng/mL
RT: 8.967 min Scan# 217
Delta R.T. -0.004 min
Lab File: F608221605.D
Acq: 22 Aug 2016 5:53 pm

Tgt Ion: 88 Resp: 32121

Ion	Ratio	Lower	Upper
88	100		
58	77.4	62.1	93.1
43	33.2	24.4	36.6



Sample Preparation

ORGANIC ELN REPORT

Workgroup: WG924460

Prep Method: EPA 3510C
Solvent Type: DCM
Surrogate Type: 1,4-DIOXANE
Spike Type: 1,4-DIOXANE
Spike Verify by: EP
Lims Spikelot: 14DIOXANE

Lot #: DP875
Lot #: MSAK13
Lot #: MSAK04

Additional Reagents/Stds

Glass Wool	11414001
Na2SO4	0000131774

Conc.Method: S-EVAP
Solvent Type: DCM
Lot #: DP875

Additional Reagents/Stds

Cleanup 1

Cleanup Method 1:
Cleanup Method 2:
Solvent Type:
Lot #:

Additional Reagents/Stds

Sample/ Type	Extraction: Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Concentration: Conc Date	Analyst	Final Vol ml	Conc Unit
WG924460-1 BLANK	08/20/16 09:45	Alyssa Sass	500	7	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5
WG924460-2 LCS	08/20/16 09:45	Alyssa Sass	500	7	.5	.5	08/20/16 11:30	Alyssa Sass	5	SEVAP 5
WG924460-3 LCSD	08/20/16 09:45	Alyssa Sass	500	7	.5	.5	08/20/16 11:30	Alyssa Sass	5	SEVAP 5
L1625892-01 SAMP	08/20/16 09:45	Alyssa Sass	490	8	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5
L1625892-02 SAMP	08/20/16 09:45	Alyssa Sass	490	7	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5
L1625892-03 SAMP	08/20/16 09:45	Alyssa Sass	510	7	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5
L1625892-04 SAMP	08/20/16 09:45	Alyssa Sass	510	7	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5

Reported: 20-SEP-16 04:12 PM

ORGANIC ELN REPORT

Workgroup: WG924460

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Conc Date	Analyst	Final Vol ml	Conc Unit
L1625892-05 SAMP	08/20/16 09:45	Alyssa Sass	480	8	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5
							LOST APPROXIMATELY 100 MICROLITERS DURING TRANSFER 8-20-16 ABS			
L1625892-06 SAMP	08/20/16 09:45	Alyssa Sass	490	7	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5
L1625892-07 SAMP	08/20/16 09:45	Alyssa Sass	490	7	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5
L1625892-08 SAMP	08/20/16 09:45	Alyssa Sass	510	7	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5
L1625892-09 SAMP	08/20/16 09:45	Alyssa Sass	520	7	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5
L1625892-10 SAMP	08/20/16 09:45	Alyssa Sass	590	7	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5
L1625892-11 SAMP	08/20/16 09:45	Alyssa Sass	500	7	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5
L1625892-12 SAMP	08/20/16 09:45	Alyssa Sass	480	7	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5
L1625892-13 SAMP	08/20/16 09:45	Alyssa Sass	490	7	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5
L1626038-03 WATER	08/20/16 09:45	Alyssa Sass	520	5	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5

Reported: 20-SEP-16 04:12 PM

ORGANIC ELN REPORT

Workgroup: WG924460

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol **ml**	Ph	Surr Amt **ml**	Spike Amt **ml**	Conc Date	Analyst	Final Vol **ml**	Conc Unit
L1626038-06 WATER	08/20/16 09:45	Alyssa Sass	500	5	.5		08/20/16 11:30	Alyssa Sass	5	SEVAP 5

Reported: 20-SEP-16 04:12 PM

Alpha Report

ANALYTICAL REPORT

Lab Number:	L1625892
Client:	Cornerstone Environmental Group, LLC 100 Crystal Run Road Suite 101 Middletown, NY 10941
ATTN:	Tim Roeper
Phone:	(845) 695-0200
Project Name:	FORD-RINGWOOD
Project Number:	140802-015
Report Date:	08/28/16

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1625892
Report Date: 08/28/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1625892-01	OB-30C-081716	WATER	RINGWOOD, NJ	08/17/16 10:30	08/18/16
L1625892-02	OB-33-081716	WATER	RINGWOOD, NJ	08/17/16 11:05	08/18/16
L1625892-03	OB-12-081716	WATER	RINGWOOD, NJ	08/17/16 11:10	08/18/16
L1625892-04	OB-30B-081716	WATER	RINGWOOD, NJ	08/17/16 11:45	08/18/16
L1625892-05	OB-15B-081716	WATER	RINGWOOD, NJ	08/17/16 12:30	08/18/16
L1625892-06	OB-2-081716	WATER	RINGWOOD, NJ	08/17/16 12:50	08/18/16
L1625892-07	OB-32-081716	WATER	RINGWOOD, NJ	08/17/16 13:30	08/18/16
L1625892-08	OB-11R-081716	WATER	RINGWOOD, NJ	08/17/16 14:30	08/18/16
L1625892-09	OB-31-081716	WATER	RINGWOOD, NJ	08/17/16 14:45	08/18/16
L1625892-10	SC-2-081716	WATER	RINGWOOD, NJ	08/17/16 15:00	08/18/16
L1625892-11	OB-27-081716	WATER	RINGWOOD, NJ	08/17/16 16:05	08/18/16
L1625892-12	OB-19-081716	WATER	RINGWOOD, NJ	08/17/16 17:20	08/18/16
L1625892-13	OB-4-081716	WATER	RINGWOOD, NJ	08/17/16 17:35	08/18/16

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1625892
Report Date: 08/28/16

NJ DEP Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	YES
1a	Were the method specified handling, preservation, and holding time requirements met?	YES
1b	EPH Method: Was the EPH Method conducted without significant modifications (see Section 11.3 of respective DKQ methods)?	N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	YES
3	Were all samples received at an appropriate temperature (4 ± 2° C)?	YES
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	YES
5a	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	NO
5b	Were these reporting limits met?	N/A
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	NO
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	NO

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1a or #1b is "No", the data package does not meet the requirements for "Data of Known Quality".

Project Name: FORD-RINGWOOD **Lab Number:** L1625892
Project Number: 140802-015 **Report Date:** 08/28/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	FORD-RINGWOOD	**Lab Number:**	L1625892
Project Number:	140802-015	**Report Date:**	08/28/16

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

DKQP Related Narratives

Semi-Volatiles

In reference to question 5a:

Reporting limits were not specified.

In reference to question 6:

At the client's request, all submitted samples were not analyzed for the full DKQP list of constituents identified in the method specific analyte list presented in the DKQP documents.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Susan E O'Neil Susan O' Neil

Title: Technical Director/Representative Date: 08/28/16

ORGANICS

SEMIVOLATILES

Project Name: FORD-RINGWOOD
Lab Number: L1625892
Project Number: 140802-015
Report Date: 08/28/16

SAMPLE RESULTS

Lab ID: L1625892-01
Client ID: OB-30C-081716
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/22/16 18:37
Analyst: WR

Date Collected: 08/17/16 10:30
Date Received: 08/18/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/20/16 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.110	J	ug/l	0.153	0.0765	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1625892
Project Number: 140802-015
Report Date: 08/28/16

SAMPLE RESULTS

Lab ID: L1625892-02
Client ID: OB-33-081716
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/22/16 19:21
Analyst: WR

Date Collected: 08/17/16 11:05
Date Received: 08/18/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/20/16 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.153	0.0765	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1625892
Report Date: 08/28/16

SAMPLE RESULTS

Lab ID: L1625892-03
Client ID: OB-12-081716
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/22/16 20:05
Analyst: WR

Date Collected: 08/17/16 11:10
Date Received: 08/18/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/20/16 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	27		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1625892
Project Number: 140802-015
Report Date: 08/28/16

SAMPLE RESULTS

Lab ID: L1625892-04
Client ID: OB-30B-081716
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/22/16 20:49
Analyst: WR

Date Collected: 08/17/16 11:45
Date Received: 08/18/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/20/16 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.266		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	28		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1625892
Report Date: 08/28/16

SAMPLE RESULTS

Lab ID: L1625892-05
Client ID: OB-15B-081716
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/22/16 21:33
Analyst: WR

Date Collected: 08/17/16 12:30
Date Received: 08/18/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/20/16 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.156	0.0781	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1625892
Project Number: 140802-015
Report Date: 08/28/16

SAMPLE RESULTS

Lab ID: L1625892-06
Client ID: OB-2-081716
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/22/16 22:18
Analyst: WR

Date Collected: 08/17/16 12:50
Date Received: 08/18/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/20/16 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.153	0.0765	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	26		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1625892
Report Date: 08/28/16

SAMPLE RESULTS

Lab ID: L1625892-07
Client ID: OB-32-081716
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/22/16 23:01
Analyst: WR

Date Collected: 08/17/16 13:30
Date Received: 08/18/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/20/16 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.422		ug/l	0.153	0.0765	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1625892
Report Date: 08/28/16

SAMPLE RESULTS

Lab ID: L1625892-08
Client ID: OB-11R-081716
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/23/16 01:21
Analyst: WR

Date Collected: 08/17/16 14:30
Date Received: 08/18/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/20/16 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	5.97		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	26		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1625892
Report Date: 08/28/16

SAMPLE RESULTS

Lab ID: L1625892-09
Client ID: OB-31-081716
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/23/16 02:05
Analyst: WR

Date Collected: 08/17/16 14:45
Date Received: 08/18/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/20/16 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	1.90		ug/l	0.144	0.0721	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	23		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1625892
Report Date: 08/28/16

SAMPLE RESULTS

Lab ID: L1625892-10
Client ID: SC-2-081716
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/23/16 02:49
Analyst: WR

Date Collected: 08/17/16 15:00
Date Received: 08/18/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/20/16 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.127	0.0636	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	19		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1625892
Report Date: 08/28/16

SAMPLE RESULTS

Lab ID: L1625892-11
Client ID: OB-27-081716
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/23/16 03:33
Analyst: WR

Date Collected: 08/17/16 16:05
Date Received: 08/18/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/20/16 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	6.47		ug/l	0.150	0.0750	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1625892
Report Date: 08/28/16

SAMPLE RESULTS

Lab ID:	L1625892-12	Date Collected:	08/17/16 17:20
Client ID:	OB-19-081716	Date Received:	08/18/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/20/16 09:45
Analytical Date:	08/23/16 04:16		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.878		ug/l	0.156	0.0781	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	29		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1625892
Report Date: 08/28/16

SAMPLE RESULTS

Lab ID: L1625892-13
Client ID: OB-4-081716
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/23/16 05:00
Analyst: WR

Date Collected: 08/17/16 17:35
Date Received: 08/18/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/20/16 09:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.0790	J	ug/l	0.153	0.0765	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	27		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1625892
Report Date: 08/28/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 08/22/16 16:25
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 08/20/16 09:45

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01-13 Batch: WG924460-1					
1,4-Dioxane	ND		ug/l	0.150	0.0750

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	28		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORD-RINGWOOD

Project Number: 140802-015

Lab Number: L1625892

Report Date: 08/28/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab	Associated sample(s): 01-13		Batch: WG924460-2 WG924460-3					
1,4-Dioxane	110		112		40-140	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	28		27		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1625892
Report Date: 08/28/16

Sample Receipt and Container Information

Were project specific reporting limits specified? NO

Cooler Information Custody Seal

Cooler	
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1625892-01A	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-01B	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-02A	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-02B	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-03A	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-03B	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-04A	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-04B	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-05A	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-05B	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-06A	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-06B	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-07A	Amber 500ml unpreserved	B	7	4.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-07B	Amber 500ml unpreserved	B	7	4.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-08A	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-08B	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-09A	Amber 500ml unpreserved	B	7	4.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-09B	Amber 500ml unpreserved	B	7	4.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-10A	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-10B	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-11A	Amber 500ml unpreserved	B	7	4.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-11B	Amber 500ml unpreserved	B	7	4.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-12A	Amber 500ml unpreserved	B	7	4.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-12B	Amber 500ml unpreserved	B	7	4.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-13A	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1625892-13B	Amber 500ml unpreserved	A	7	2.5	Y	Absent	A2-14-DIOXANESIM-PPB(7)

*Values in parentheses indicate holding time in days

Project Name:	FORD-RINGWOOD	**Lab Number:**	L1625892
Project Number:	140802-015	**Report Date:**	08/28/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORD-RINGWOOD	**Lab Number:**	L1625892
Project Number:	140802-015	**Report Date:**	08/28/16

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1625892
Report Date: 08/28/16

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: ***EPA 3050B***

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW JERSEY CHAIN OF CUSTODY

ALPHA Analytical
Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193
Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 8/19/16

ALPHA Job #: L1625892

Client Information
Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information
Project Name: Ford - Ringwood
Project Location: Ringwood, NJ
Project #: 140802-015
(Use Project name as Project #)
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time
Standard: ☒ Due Date:
Rush (only if pre approved): ☐ # of Days:

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information
☐ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4-Dioxane SIM - PDB	Total Bottle	Sample Specific Comments
25892.01	OB-30C-081716	8/17/16	1030	GW	JG	✓		
.02	OB-33-081716	8/17/16	1105	GW	DW	✓		
.03	OB-12-081716	8/17/16	1110	GW	RL	✓		
.04	OB-30B-081716	8/17/16	1145	GW	JG	✓		
.05	OB-15B-081716	8/17/16	1230	GW	DW	✓		
.06	OB-2-081716	8/17/16	1250	GW	RL	✓		
.07	OB-32-081716	8/17/16	1330	GW	JG	✓		
.08	OB-11R-081716	8/17/16	1430	GW	DW	✓		
.09	OB-31-081716	8/17/16	1445	GW	JG	✓		
.10	SC-2-081716	8/17/16	1500	GW	RL	✓		

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/18/16 07:58		8/18/16 07:58
	8/18/16		8/19/16
	8/19/16 0350		8/19/16 0350

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

NEW JERSEY CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Date Rec'd in Lab: 8/19/16

ALPHA Job #: L1625892

Client Information

Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information

Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #: 140802-015
(Use Project name as Project #) ☐
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4 Dioxane SIM - PPB	Total Bottle	Sample Specific Comments
25892.11	OB-27-081716	8/17/16	1605	GW	DW	✓		
.12	OB-19-081716	8/17/16	1720	GW	DW	✓		
.13	OB-4-081716	8/17/16	1735	GW	RL	✓		

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/18/16 07:58		8/18/16 07:58
	8/18/16 1620		8/18/16 1620
			8/19/16 0000
	8/19/16 0330		8/19/16 0330

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Alpha
Summary Forms

Organic Summary Forms

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1625892-01	**Date Collected**	: 08/17/16 10:30
Client ID	: OB-30C-081716	**Date Received**	: 08/18/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/22/16 18:37
Sample Matrix	: WATER	**Date Extracted**	: 08/20/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608221606	**Analyst**	: WR
Sample Amount	: 490 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.110	0.153	0.0765	J

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1625892-02	**Date Collected**	: 08/17/16 11:05
Client ID	: OB-33-081716	**Date Received**	: 08/18/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/22/16 19:21
Sample Matrix	: WATER	**Date Extracted**	: 08/20/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608221607	**Analyst**	: WR
Sample Amount	: 490 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.153	0.0765	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1625892-03	**Date Collected**	: 08/17/16 11:10
Client ID	: OB-12-081716	**Date Received**	: 08/18/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/22/16 20:05
Sample Matrix	: WATER	**Date Extracted**	: 08/20/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608221608	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.147	0.0735	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1625892-04	**Date Collected**	: 08/17/16 11:45
Client ID	: OB-30B-081716	**Date Received**	: 08/18/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/22/16 20:49
Sample Matrix	: WATER	**Date Extracted**	: 08/20/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608221609	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.266	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1625892-05	**Date Collected**	: 08/17/16 12:30
Client ID	: OB-15B-081716	**Date Received**	: 08/18/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/22/16 21:33
Sample Matrix	: WATER	**Date Extracted**	: 08/20/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608221610	**Analyst**	: WR
Sample Amount	: 480 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.156	0.0781	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1625892-06	**Date Collected**	: 08/17/16 12:50
Client ID	: OB-2-081716	**Date Received**	: 08/18/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/22/16 22:18
Sample Matrix	: WATER	**Date Extracted**	: 08/20/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608221611	**Analyst**	: WR
Sample Amount	: 490 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.153	0.0765	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1625892-07	**Date Collected**	: 08/17/16 13:30
Client ID	: OB-32-081716	**Date Received**	: 08/18/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/22/16 23:01
Sample Matrix	: WATER	**Date Extracted**	: 08/20/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608221612	**Analyst**	: WR
Sample Amount	: 490 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.422	0.153	0.0765	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1625892-08	**Date Collected**	: 08/17/16 14:30
Client ID	: OB-11R-081716	**Date Received**	: 08/18/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/23/16 01:21
Sample Matrix	: WATER	**Date Extracted**	: 08/20/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608221615	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	5.97	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1625892-09	**Date Collected**	: 08/17/16 14:45
Client ID	: OB-31-081716	**Date Received**	: 08/18/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/23/16 02:05
Sample Matrix	: WATER	**Date Extracted**	: 08/20/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608221616	**Analyst**	: WR
Sample Amount	: 520 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	1.90	0.144	0.0721	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1625892-10	**Date Collected**	: 08/17/16 15:00
Client ID	: SC-2-081716	**Date Received**	: 08/18/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/23/16 02:49
Sample Matrix	: WATER	**Date Extracted**	: 08/20/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608221617	**Analyst**	: WR
Sample Amount	: 590 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.127	0.0636	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1625892-11	**Date Collected**	: 08/17/16 16:05
Client ID	: OB-27-081716	**Date Received**	: 08/18/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/23/16 03:33
Sample Matrix	: WATER	**Date Extracted**	: 08/20/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608221618	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	6.47	0.150	0.0750	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1625892-12	**Date Collected**	: 08/17/16 17:20
Client ID	: OB-19-081716	**Date Received**	: 08/18/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/23/16 04:16
Sample Matrix	: WATER	**Date Extracted**	: 08/20/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608221619	**Analyst**	: WR
Sample Amount	: 480 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.878	0.156	0.0781	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1625892-13	**Date Collected**	: 08/17/16 17:35
Client ID	: OB-4-081716	**Date Received**	: 08/18/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/23/16 05:00
Sample Matrix	: WATER	**Date Extracted**	: 08/20/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608221620	**Analyst**	: WR
Sample Amount	: 490 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.0790	0.153	0.0765	J

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: WG924460-1	**Date Collected**	: NA
Client ID	: WG924460-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/22/16 16:25
Sample Matrix	: WATER	**Date Extracted**	: 08/20/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608221603	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 2
Surrogate Recovery
SEMIVOLATILES

Client: Cornerstone/Cadena Co. joint account
Project Name: FORD-RINGWOOD

Lab Number: L1625892
Project Number: 140802-015
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 ()	S2 ()	S3 ()	S4 ()	S5 ()	S6 ()	TOT OUT
WG924460-3LCSD	27	--	--	--	--	--	0
WG924460-2LCS	28	--	--	--	--	--	0
WG924460-1BLANK	28	--	--	--	--	--	0
OB-11R-081716 (L1625892-08)	26	--	--	--	--	--	0
OB-12-081716 (L1625892-03)	27	--	--	--	--	--	0
OB-15B-081716 (L1625892-05)	25	--	--	--	--	--	0
OB-19-081716 (L1625892-12)	29	--	--	--	--	--	0
OB-2-081716 (L1625892-06)	26	--	--	--	--	--	0
OB-27-081716 (L1625892-11)	24	--	--	--	--	--	0
OB-30B-081716 (L1625892-04)	28	--	--	--	--	--	0
OB-30C-081716 (L1625892-01)	25	--	--	--	--	--	0
OB-31-081716 (L1625892-09)	23	--	--	--	--	--	0
OB-32-081716 (L1625892-07)	25	--	--	--	--	--	0
OB-33-081716 (L1625892-02)	25	--	--	--	--	--	0
OB-4-081716 (L1625892-13)	27	--	--	--	--	--	0
SC-2-081716 (L1625892-10)	19	--	--	--	--	--	0

	QC LIMITS
S1 = 1,4-DIOXANE-D8	(15-110)

*** Values outside of QC limits**

FORM II A2-14-DIOXANESIM-PPB

Laboratory Control Sample
Form 3

Client	: Cornerstone/Cadena Co. joint accoun		**Lab Number**	: L1625892	
Project Name	: FORD-RINGWOOD		**Project Number**	: 140802-015	
Matrix	: WATER				
LCS Sample ID	: WG924460-2	**Analysis Date :** 08/22/16 17:09	**File ID**	: F608221604	
LCSD Sample ID	: WG924460-3	**Analysis Date :** 08/22/16 17:53	**File ID**	: F608221605	

	Laboratory Control Sample			Laboratory Control Duplicate					
	True	Found	%R	True	Found	%R	RPD	Recovery	RPD
Parameter	(ug/l)	(ug/l)		(ug/l)	(ug/l)			Limits	Limit
1,4-Dioxane	5	5.52	110	5	5.61	112	2	40-140	30

Method Blank Summary
Form 4

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab Sample ID	: WG924460-1	**Lab File ID**	: F608221603
Instrument ID	: BNA6	**Extraction Date**	: 08/20/16
Matrix	: WATER	**Analysis Date**	: 08/22/16 16:25
Level	: LOW		

Client Sample No.	Lab Sample ID	Analysis Date
WG924460-2LCS	WG924460-2	08/22/16 17:09
WG924460-3LCSD	WG924460-3	08/22/16 17:53
OB-30C-081716	L1625892-01	08/22/16 18:37
OB-33-081716	L1625892-02	08/22/16 19:21
OB-12-081716	L1625892-03	08/22/16 20:05
OB-30B-081716	L1625892-04	08/22/16 20:49
OB-15B-081716	L1625892-05	08/22/16 21:33
OB-2-081716	L1625892-06	08/22/16 22:18
OB-32-081716	L1625892-07	08/22/16 23:01
OB-11R-081716	L1625892-08	08/23/16 01:21
OB-31-081716	L1625892-09	08/23/16 02:05
SC-2-081716	L1625892-10	08/23/16 02:49
OB-27-081716	L1625892-11	08/23/16 03:33
OB-19-081716	L1625892-12	08/23/16 04:16
OB-4-081716	L1625892-13	08/23/16 05:00

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/10/16 13:25
Tune Standard	: R891220-9	**Tune File ID**	: F608101603_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	28.1
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	38.3
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.8
275	10.0 - 60.0% of Base Peak	28.4
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	15.6
442	Base Peak, or >50% of mass 198	94.3
443	15.0 - 24.0% of mass 442	18.3 (19.4)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD 10	R891220-2	F608101604	08/10/16 14:22
STD 50	R891220-3	F608101605	08/10/16 15:07
STD 100	R891220-4	F608101606	08/10/16 15:51
STD 500	R891220-5	F608101607	08/10/16 16:36
STD 1000	R891220-1	F608101608	08/10/16 17:21
STD 5000	R891220-6	F608101609	08/10/16 18:06
STD 10000	R891220-7	F608101610	08/10/16 18:51
ICV Quant Report STD 1000	R891220-8	F608101611	08/10/16 19:36

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/22/16 13:59
Tune Standard	: WG924876-1	**Tune File ID**	: F608221601_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	28.3
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	38.4
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.8
275	10.0 - 60.0% of Base Peak	28.5
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	15.7
442	Base Peak, or >50% of mass 198	97.6
443	15.0 - 24.0% of mass 442	19 (19.5)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG924876-3CCAL	WG924876-3	F608221602	08/22/16 14:55
WG924460-1BLANK	WG924460-1	F608221603	08/22/16 16:25
WG924460-2LCS	WG924460-2	F608221604	08/22/16 17:09
WG924460-3LCSD	WG924460-3	F608221605	08/22/16 17:53
OB-30C-081716	L1625892-01	F608221606	08/22/16 18:37
OB-33-081716	L1625892-02	F608221607	08/22/16 19:21
OB-12-081716	L1625892-03	F608221608	08/22/16 20:05
OB-30B-081716	L1625892-04	F608221609	08/22/16 20:49
OB-15B-081716	L1625892-05	F608221610	08/22/16 21:33
OB-2-081716	L1625892-06	F608221611	08/22/16 22:18
OB-32-081716	L1625892-07	F608221612	08/22/16 23:01

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/22/16 23:42
Tune Standard	: WG924876-4	**Tune File ID**	: F608221613_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	28.7
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.1 (.5)1
127	10.0 - 80.0% of Base Peak	38.8
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.8
275	10.0 - 60.0% of Base Peak	28.2
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	15.7
442	Base Peak, or >50% of mass 198	94.7
443	15.0 - 24.0% of mass 442	18.4 (19.4)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG924876-6CCAL	WG924876-6	F608221614	08/23/16 00:38
OB-11R-081716	L1625892-08	F608221615	08/23/16 01:21
OB-31-081716	L1625892-09	F608221616	08/23/16 02:05
SC-2-081716	L1625892-10	F608221617	08/23/16 02:49
OB-27-081716	L1625892-11	F608221618	08/23/16 03:33
OB-19-081716	L1625892-12	F608221619	08/23/16 04:16
OB-4-081716	L1625892-13	F608221620	08/23/16 05:00

Initial Calibration Summary
Form 6

Client	**: Cornerstone/Cadena Co. joint accoun**	**Lab Number**	**: L1625892**
Project Name	**: FORD-RINGWOOD**	**Project Number**	**: 140802-015**
Instrument ID	**: BNA6**	**Ical Ref**	**: ICAL12751**
Calibration dates	**: 08/10/16 14:22 08/10/16 18:51**		

Calibration Files
10 =F608101604.D 50 =F608101605.D 100 =F608101606.D 500 =F608101607.D 1000=F608101608.D
5000=F608101609.D 1e4 =F608101610.D

	Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)	1,4-Dioxane-d8 (IS)	----------ISTD----------								
2)	1,4-dioxane	1.556	1.402	1.394	1.386	1.470	1.417	1.405	1.433	4.24
3) I	1,4-Dichlorobenzene-d4	----------ISTD----------								
4) s	1,4-dioxane-d8	0.428	0.444	0.423	0.441	0.417	0.442	0.435	0.433	2.41

Continuing Calibration
Form 7

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625892	
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015	
Instrument ID	: BNA6	**Calibration Date**	: 08/22/16 14:55	
Lab File ID	: F608221602	**Init. Calib. Date(s)**	: 08/10/16	08/10/16
Sample No	: WG924876-3	**Init. Calib. Times**	: 14:22	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	97	-.06
1,4-dioxane	1.433	1.389	-	3.1	20	92	-.06
1,4-Dichlorobenzene-d4	1	1	-	0	20	98	-.09
1,4-dioxane-d8	0.433	0.413	-	4.6	20	95	-.06

* Value outside of QC limits.

Continuing Calibration
Form 7

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625892	
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015	
Instrument ID	: BNA6	**Calibration Date**	: 08/23/16 00:38	
Lab File ID	: F608221614	**Init. Calib. Date(s)**	: 08/10/16	08/10/16
Sample No	: WG924876-6	**Init. Calib. Times**	: 14:22	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	91	-.07
1,4-dioxane	1.433	1.4	-	2.3	20	87	-.07
1,4-Dichlorobenzene-d4	1	1	-	0	20	90	-.09
1,4-dioxane-d8	0.433	0.421	-	2.8	20	90	-.07

* Value outside of QC limits.

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/22/16 14:55
Sample No	: WG924876-3	**Lab File ID**	: F608221602

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG924876-3	196589	15.42				
Upper Limit	393178	15.92				
Lower Limit	98295	14.92				
Sample ID						
WG924460-1 BLANK	182484	15.42				
WG924460-2 LCS	188009	15.42				
WG924460-3 LCSD	171428	15.43				
OB-30C-081716	171048	15.42				
OB-33-081716	170858	15.42				
OB-12-081716	163492	15.43				
OB-30B-081716	159017	15.43				
OB-15B-081716	163015	15.42				
OB-2-081716	167367	15.42				
OB-32-081716	163947	15.42				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1625892
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/23/16 00:38
Sample No	: WG924876-6	**Lab File ID**	: F608221614

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG924876-6	181012	15.42				
Upper Limit	362024	15.92				
Lower Limit	90506	14.92				
Sample ID						
OB-11R-081716	187742	15.42				
OB-31-081716	179946	15.42				
SC-2-081716	164872	15.42				
OB-27-081716	184157	15.42				
OB-19-081716	164125	15.42				
OB-4-081716	164279	15.42				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

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ALPHA ANALYTICAL

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Lab Number: L1626118

Client: Cornerstone/Cadena Co. joint acc

ATTN: Jim Tomalia

Project Name: FORD-RIDGEWOOD

Project Number: 140802-015

September 20, 2016

Data Deliverable Revision Narrative
Alpha SDG: L1626118
Client: Cornerstone Environmental Group, LLC
Site: FORD-RINGWOOD

This data package replaces the data package issued on August 26, 2016. The package type has changed to DPKG-FULL.

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Sample Delivery Group Information

Sample Delivery Group Form

Laboratory Job number: L1626118
Project Manager: Nichole Hunt **Review Date:** 08/24/2016
Project Number: 140802-015
Project Name: FORD-RIDGEWOOD **Received:** 08/19/2016 15:00
Client Account: Cornerstone/Cadena Co. joint account **Received by:** BB

Samples Delivered by: COURIER **Call Tracker #**
Bill Of Laden N/A **Trackingnum**
Coc Present Present

Container Status Intact **Sample IDs**

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt 7 **Are samples Properly Preserved?** Yes
Initial pH **preserved in house with** **Final pH**
Other Issues
Chlorine Check N/A

Are VOA/VPH Vials Present? No
Aqueous: Do Vials Contain Head Space? N/A
Soils: Is MeOHCovering the Soil? N/A
Reagent H2O Preserved vials Frozen on N/A
Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
B	Absent	Yes	No	2.0 - IR Gun	No	No

A	Absent	Yes	No	2.2 - IR Gun	No	No

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 21 2016, 06:59 pm

Login Number: L1626118
Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015
Received: 19AUG16 Due Date: 26AUG16

Sample #	Client ID	Mat	PR	Collected	Container
L1626118-01	SC-1-081916	1	S0	19AUG16 11:35	2-Amber-A.5
| DPKG-FULL Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB,DPKG-FULL,NJDEP					
L1626118-02	SW-11-081916	1	S0	19AUG16 08:25	2-Amber-A.5
| Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB					
L1626118-03	SW-PAB-00-081916	1	S0	19AUG16 07:55	2-Amber-A.5
| Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB					
L1626118-04	SR3-POND-081916	1	S0	19AUG16 10:35	6-Amber-A.5
L1626118-04 MS L1626118-04 MSD MS/MSD are containers CDEF and labeled -18 and -19 Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB,A2-MS/MSD					
L1626118-05	SR3-SEEP-1-081916	1	S0	19AUG16 11:40	2-Amber-A.5
| Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB					
L1626118-06	SR3-SEEP-2-081916	1	S0	19AUG16 12:10	2-Amber-A.5
| Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB					
L1626118-07	SW-PAB-01-081916	1	S0	19AUG16 13:15	2-Amber-A.5
| Package Due Date: 08/26/16					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 21 2016, 06:59 pm

Login Number: L1626118

Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015

Received: 19AUG16 Due Date: 26AUG16

Sample #	Client ID	Mat	PR	Collected	Container
A2-14-DIOXANESIM-PPB					
L1626118-08	SW-PAB-01A-081916	1	S0	19AUG16 13:40	2-Amber-A.5
| Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB					
L1626118-09	SW-MRB-00-081916	1	S0	19AUG16 13:05	2-Amber-A.5
| Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB					
L1626118-10	SW-NOB-02-081916	1	S0	19AUG16 10:25	2-Amber-A.5
| Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB					
L1626118-11	SW-PAB-04-081916	1	S0	19AUG16 10:40	2-Amber-A.5
| Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB					
L1626118-12	SW-SP-01-081916	1	S0	19AUG16 11:05	2-Amber-A.5
| Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB					
L1626118-13	SW-03-081916	1	S0	19AUG16 12:40	2-Amber-A.5
| Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 21 2016, 06:59 pm

Login Number: L1626118

Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015

Received: 19AUG16 Due Date: 26AUG16

Sample #	Client ID	Mat	PR	Collected	Container
L1626118-14	SW-04-081916	1	S0	19AUG16 12:05	2-Amber-A.5
| Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB					
L1626118-15	SW-MRB-03-081916	1	S0	19AUG16 13:40	2-Amber-A.5
| Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB					
L1626118-16	SW-MRB-02-081916	1	S0	19AUG16 13:55	2-Amber-A.5
| Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB					
L1626118-17	FB-03-081916	1	S0	19AUG16 14:30	2-Amber-A.5
| Package Due Date: 08/26/16					
A2-14-DIOXANESIM-PPB					

Logged By: Nichole Hunt

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1626118-01A	Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-01A	Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-01A	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-01A	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-01B	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-01B	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-02A	Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-02A	Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-02A	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-02A	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-02B	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-02B	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-03A	Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-03A	Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-03A	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-03A	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-03B	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-03B	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-04A	Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-04A	Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-04A	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-04A	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-04A1	Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-04A1	Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-04A1	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard

Container ID Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1626118-04A1 Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626118-04A2 Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-04A2 Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626118-04B Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-04B Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-04B1 Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-04B1 Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-04B1 Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-04B1 Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626118-04B2 Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-04B2 Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626118-05A Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-05A Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-05A Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-05A Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-05B Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-05B Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-06A Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-06A Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-06A Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-06A Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-06B Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-06B Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-07A Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-07A Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1626118-07A	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-07A	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-07B	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-07B	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-08A	Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-08A	Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-08A	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-08A	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-08B	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-08B	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-09A	Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-09A	Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-09A	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-09A	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-09B	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-09B	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-10A	Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-10A	Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-10A	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-10A	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-10B	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-10B	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-11A	Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-11A	Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-11A	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1626118-11A	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-11B	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-11B	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-12A	Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-12A	Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-12A	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-12A	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-12B	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-12B	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-13A	Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-13A	Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-13A	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-13A	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-13B	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-13B	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-14A	Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-14A	Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-14A	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-14A	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-14B	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-14B	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-15A	Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-15A	Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-15A	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-15A	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1626118-15B	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-15B	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-16A	Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-16A	Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-16A	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-16A	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-16B	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-16B	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-17A	Amber-A.5	EMPTY	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Sarah Barr	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Sarah Barr
L1626118-17A	Amber-A.5	INTACT	23-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626118-17A	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-17A	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-17B	Amber-A.5	INTACT	20-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626118-17B	Amber-A.5	INTACT	20-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626118-18A	Amber-A.5	INTACT	22-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1626118-18A	Amber-A.5	INTACT	22-AUG-16	LOGIN	LOGIN	Kim L. Bailey	CUSTODY	CUSTODY	Kim L. Bailey
L1626118-18B	Amber-A.5	INTACT	22-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1626118-18B	Amber-A.5	INTACT	22-AUG-16	LOGIN	LOGIN	Kim L. Bailey	CUSTODY	CUSTODY	Kim L. Bailey
L1626118-19A	Amber-A.5	INTACT	22-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1626118-19A	Amber-A.5	INTACT	22-AUG-16	LOGIN	LOGIN	Kim L. Bailey	CUSTODY	CUSTODY	Kim L. Bailey
L1626118-19B	Amber-A.5	INTACT	22-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1626118-19B	Amber-A.5	INTACT	22-AUG-16	LOGIN	LOGIN	Kim L. Bailey	CUSTODY	CUSTODY	Kim L. Bailey

Chain of Custody

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 8/20/16

ALPHA Job #: L626118

Client Information

Client: Cornerstone Env Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 8456950200
Fax:
Email:

Project Information

Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #
(Use Project name as Project #) ☐
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

A2 1,4 Dioxane SIM - PPB

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Sample Specific Comments

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4 Dioxane SIM - PPB								Total Bottle
26118-01	SC-1-081916	8/19/16	11:35	GW		✓								
-02	SW1-081916	8/19/16	08:25	SW		✓								
-03	SW-PAB-00-081916	8/19/16	07:55	SW		✓								
-04	SR3-Pond-081916	8/19/16	10:35	SW		✓								
-05	SR3-Pond-081916 MS	8/19/16	10:35	SW		✓								
-06	SR3-Pond-081916 MSD	8/19/16	10:35	SW		✓								
-07	SR3-SEEP1-081916	8/19/16	11:40	SW		✓								
-08	SR3-SEEP-2-081916	8/19/16	12:10	SW		✓								
-09	SW-PAB-01-081916	8/19/16	13:15	SW		✓								
-10	SW-PAB-01A-081916	8/19/16	13:40	SW		✓								
					Container Type	A								
					Preservative	A								

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8-19-16 1500		8-19-16 1500
	8-19-16 1800		8/19/16 1800
			8/19/16 22:00
	8/20/16 02:30		8-20-16 02:30
	8-20-16 03:35		8/20/16 03:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 8/20/16

ALPHA Job #: L1626118

Client Information

Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 8456950200
Fax:
Email:

Project Information

Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #
(Use Project name as Project #) ☐
Project Manager: Tina Roeper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

A2 1,4 Dioxane SIM - PAB

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2	Sample Specific Comments
26218-01	SW-MRB-00-081916		13:05	SW		✓	
-10-12	SW-NOB02-081916		10:25	SW		✓	
-11-13	SW-PAB-04-081916		10:40	SW		✓	
-12-14	SW-SP-01-081916		11:05	SW		✓	
-13-15	SW-03-081916		12:40	SW		✓	
-14-16	SW-04-081916		12:05	SW		✓	
-15-17	SW-MRB-03-081916		13:40	SW		✓	
-16-18	SW-MRB-02-081916		13:55	SW		✓	
-17-19	FB-03-081916		14:30	BW		✓	
(BB)							

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

	A						
Container Type	A						
Preservative	A						

Relinquished By:	Date/Time	Received By:	Date/Time
	8-19-16 1500	AAL	8-19-16 1500
	8-19-16 1500		8/19/16 1500
			8/19/16 22:40
	8/20/16 0225	AE Williams	8-20-16 02:30
AE Williams	8-20-16 03:35		8/20/16 03:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Organics

GCMS Extractables 1,4-Dioxane By SIM

Initial Calibration

Response Factor Report BNA6

Method Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Method File : 14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016
Response Via : Initial Calibration

Calibration Files
10 =F608101604.D 50 =F608101605.D 100 =F608101606.D 500 =F608101607.D 1000=F608101608.D
5000=F608101609.D 1e4 =F608101610.D

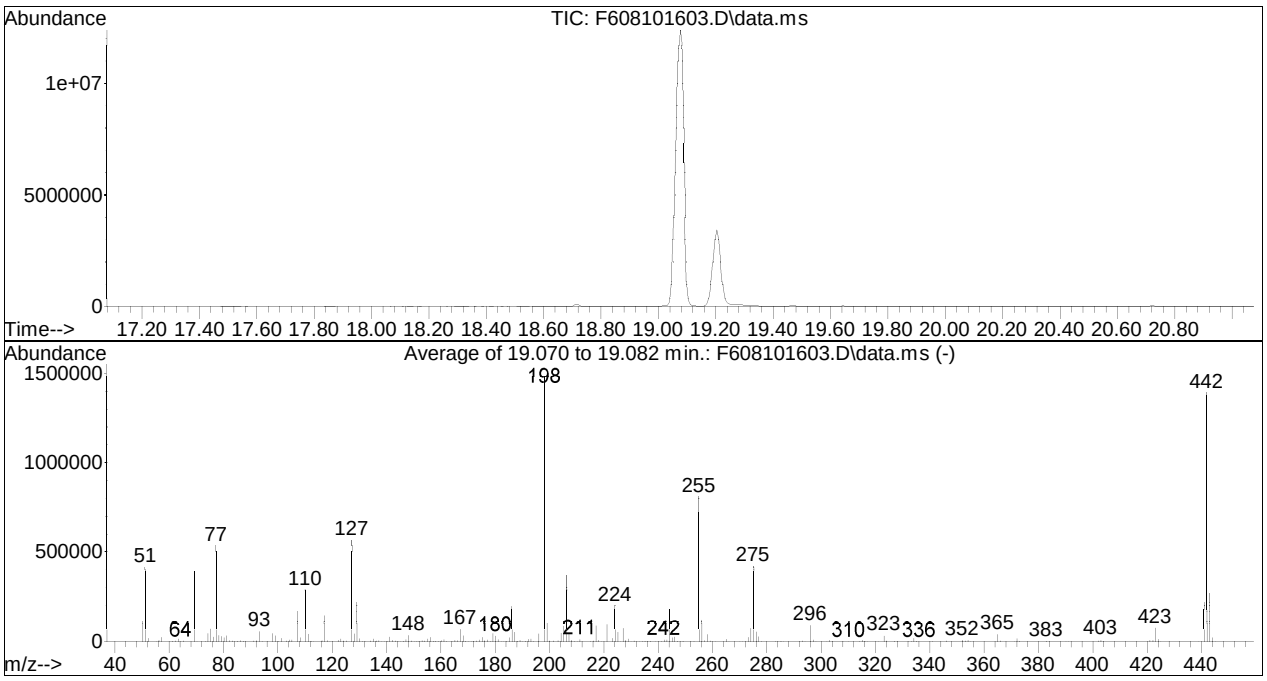
	Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)	1,4-Dioxane-d8 (IS)	ISTD								
2)	1,4-dioxane	1.556	1.402	1.394	1.386	1.470	1.417	1.405	1.433	4.24
3) I	1,4-Dichlorobenzene-d4	ISTD								
4) s	1,4-dioxane-d8	0.428	0.444	0.423	0.441	0.417	0.442	0.435	0.433	2.41

(#) = Out of Range

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101603.D
Acq On : 10 Aug 2016 1:25 pm
Operator : BNA6:SF
Sample : T608101601
Misc : WG921943,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



AutoFind: Scans 1879, 1880, 1881; Background Corrected with Scan 1856

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.1	414533	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2219	PASS
127	198	10	80	38.3	565504	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1476097	PASS
199	198	5	9	6.8	100408	PASS
275	198	10	60	28.4	419669	PASS
365	198	1	100	2.8	40728	PASS
441	442	0.01	24	15.6	217472	PASS
442	198	50	100	94.3	1392469	PASS
443	442	15	24	19.4	270059	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101604.D
Acq On : 10 Aug 2016 2:22 pm
Operator : BNA6:SF
Sample : I608101601
Misc : WG921943,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 12:53:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

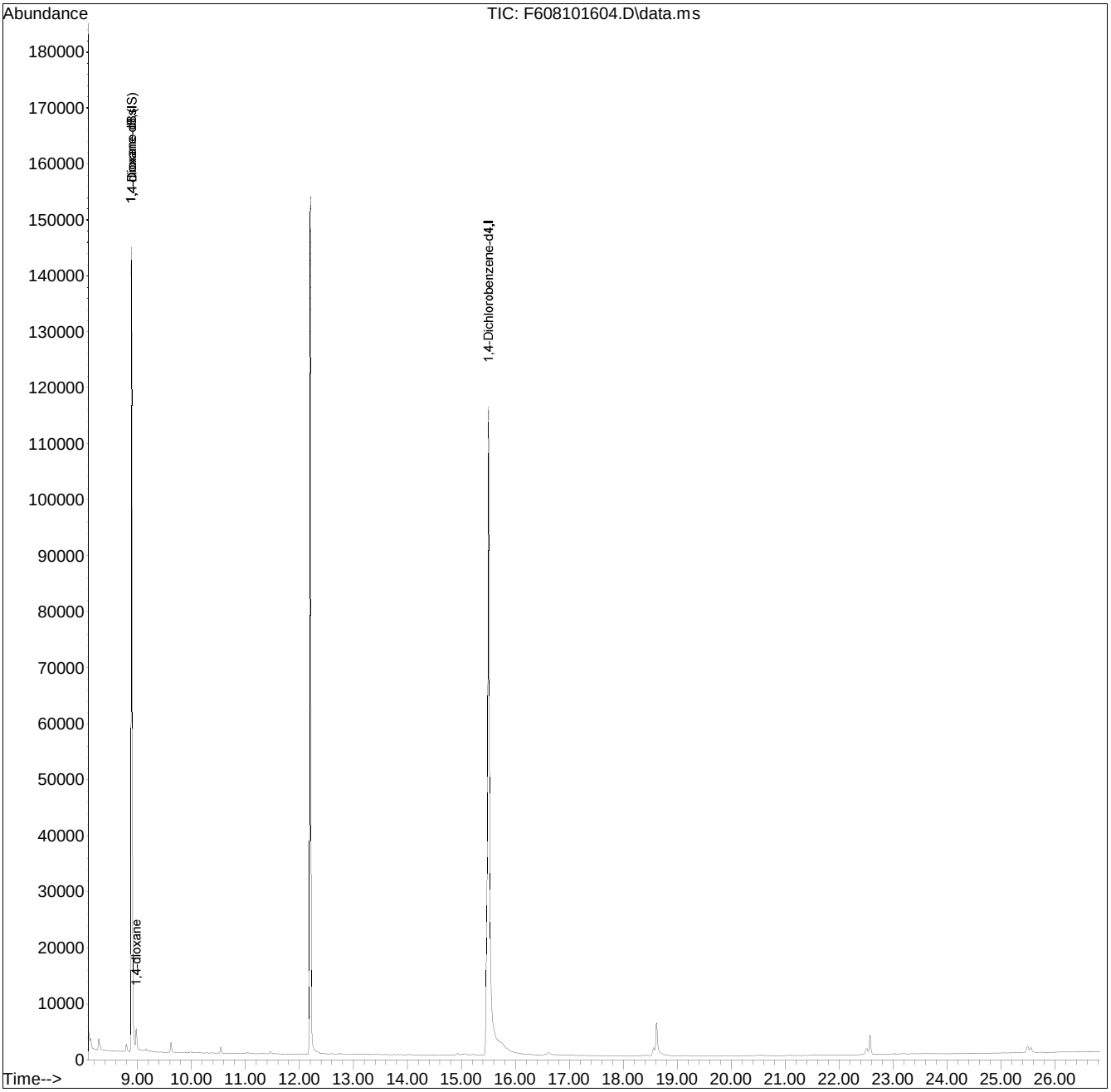
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	85056	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.503	152	198789	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	85056	494.380	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 98.88%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.980	88	2647	10.858	ng/mL	98

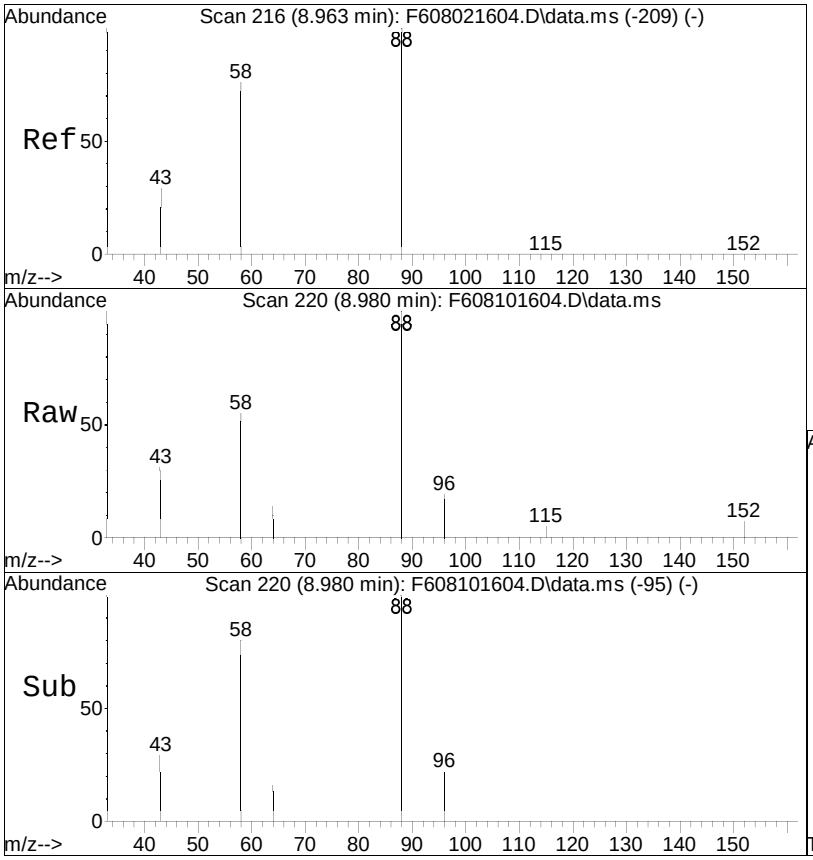
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101604.D
Acq On : 10 Aug 2016 2:22 pm
Operator : BNA6:SF
Sample : I608101601
Misc : WG921943,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 12:53:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

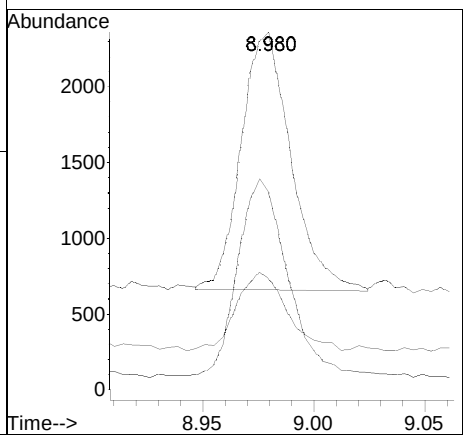




#2
1,4-dioxane
Concen: 10.86 ng/mL
RT: 8.980 min Scan# 220
Delta R.T. 0.008 min
Lab File: F608101604.D
Acq: 10 Aug 2016 2:22 pm

Tgt Ion: 88 Resp: 2647

Ion	Ratio	Lower	Upper
88	100		
58	76.2	62.1	93.1
43	31.4	24.4	36.6



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101604.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 2:22 pm	Instrument	: BNA6
Sample	: I608101601	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101605.D
Acq On : 10 Aug 2016 3:07 pm
Operator : BNA6:SF
Sample : I608101602
Misc : WG921943,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 11 12:53:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	88228	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	198548	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	88228	513.440	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.69%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.984	88	12373	48.930	ng/mL	100

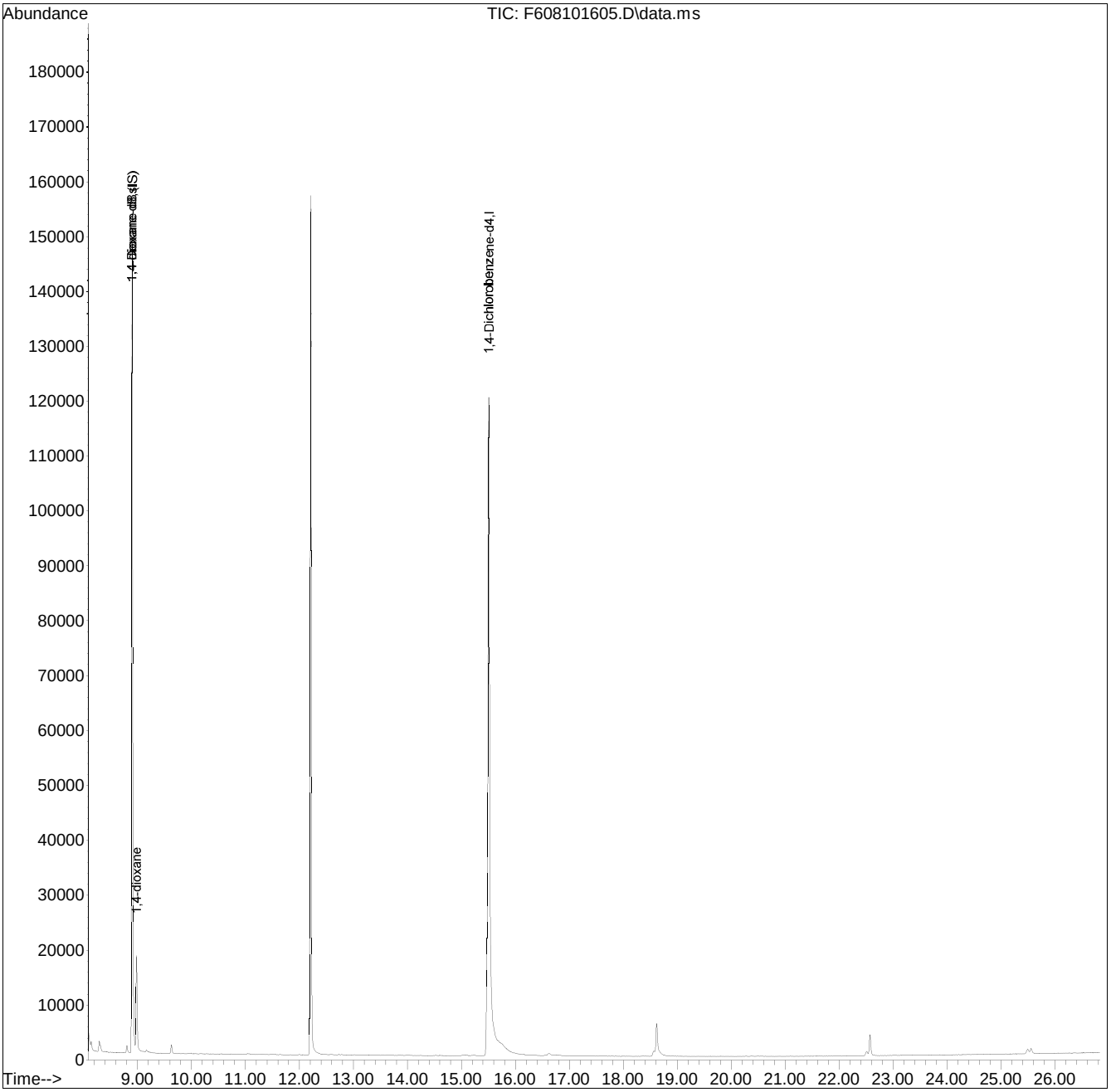
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101605.D
Acq On : 10 Aug 2016 3:07 pm
Operator : BNA6:SF
Sample : I608101602
Misc : WG921943,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 11 12:53:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101605.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 3:07 pm	Instrument	: BNA6
Sample	: I608101602	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101606.D
Acq On : 10 Aug 2016 3:51 pm
Operator : BNA6:SF
Sample : I608101603
Misc : WG921943,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 11 12:53:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	86899	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	205668	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	86899	488.199	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 97.64%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.980	88	24230	97.284	ng/mL	99

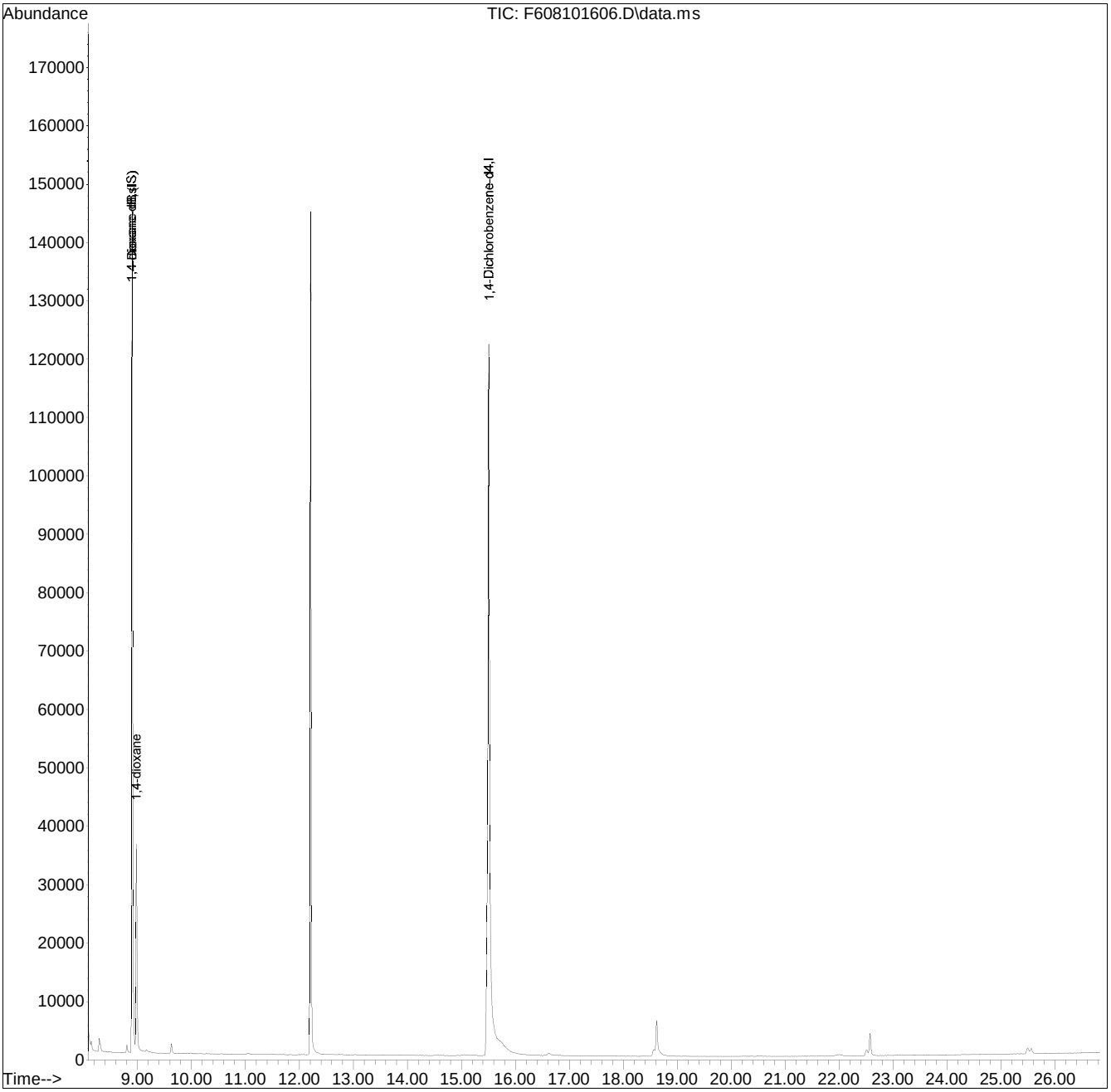
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101606.D
Acq On : 10 Aug 2016 3:51 pm
Operator : BNA6:SF
Sample : I608101603
Misc : WG921943,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 11 12:53:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101606.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 3:51 pm	Instrument	: BNA6
Sample	: I608101603	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101607.D
Acq On : 10 Aug 2016 4:36 pm
Operator : BNA6:SF
Sample : I608101604
Misc : WG921943,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 11 12:53:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

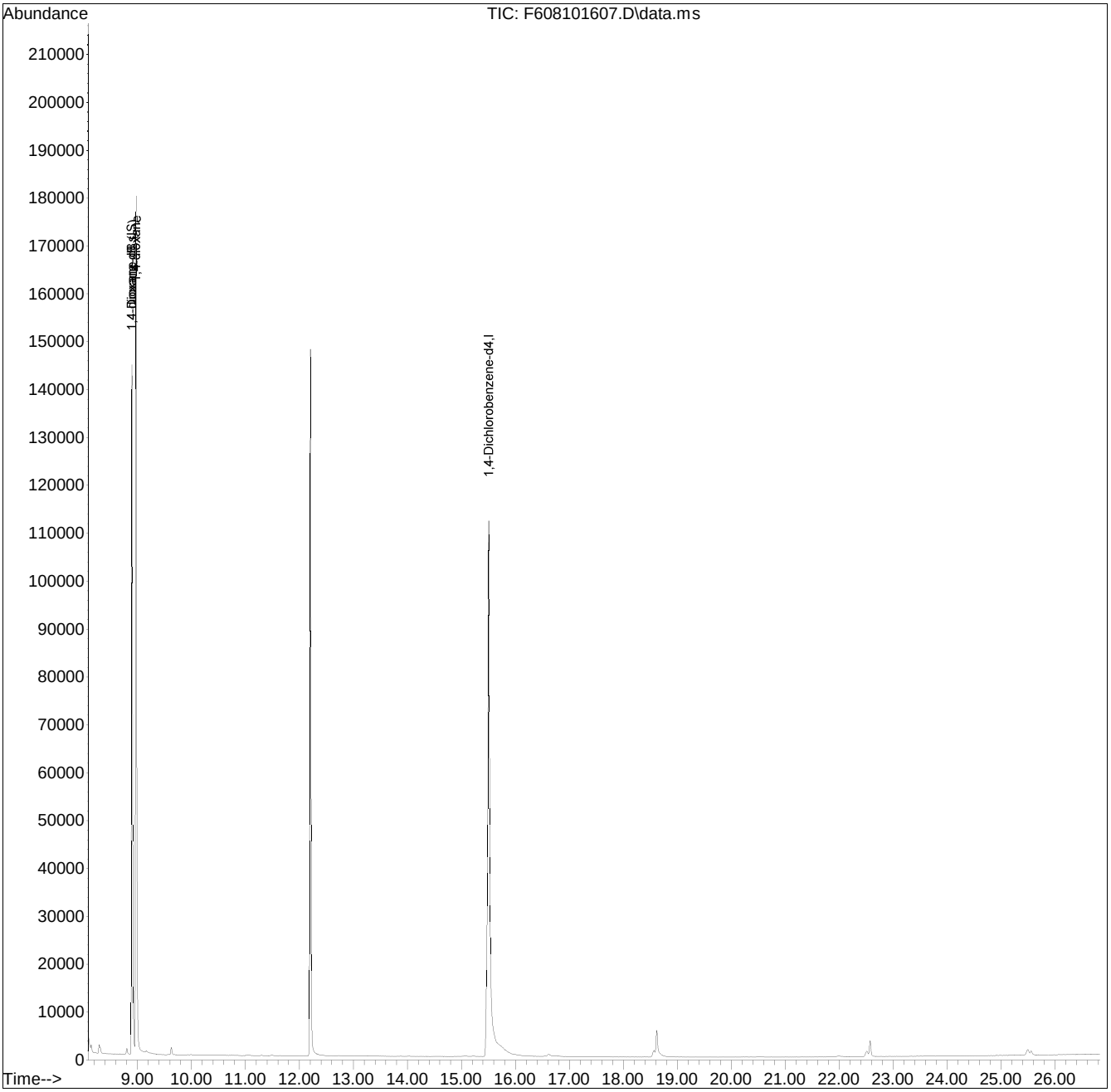
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	86585	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	196925	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	86794M4	509.257	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 101.85%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.972	88	120017M4	483.619	ng/mL	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101607.D
Acq On : 10 Aug 2016 4:36 pm
Operator : BNA6:SF
Sample : I608101604
Misc : WG921943,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 11 12:53:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

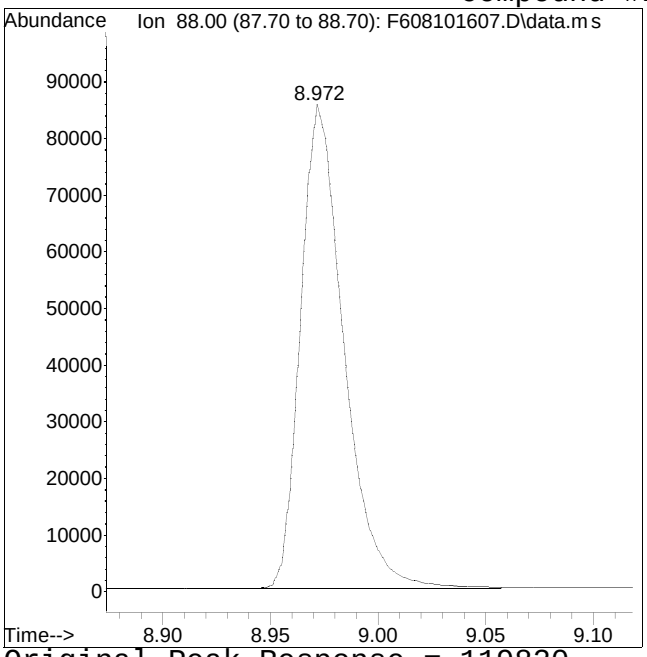
Sub List : Default - All compounds listed



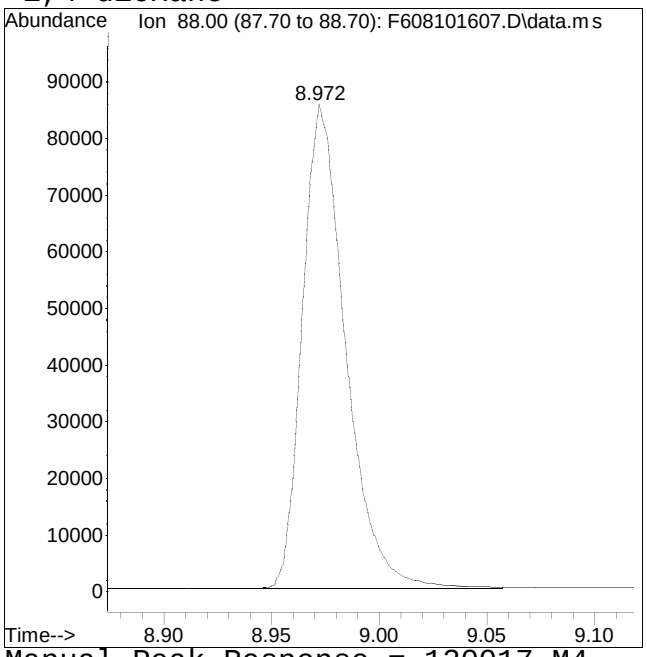
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101607.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 4:36 pm Instrument : BNA6
Sample : I608101604 Quant Date : 8/11/2016 12:53 pm

Compound #2: 1,4-dioxane



Original Peak Response = 119820



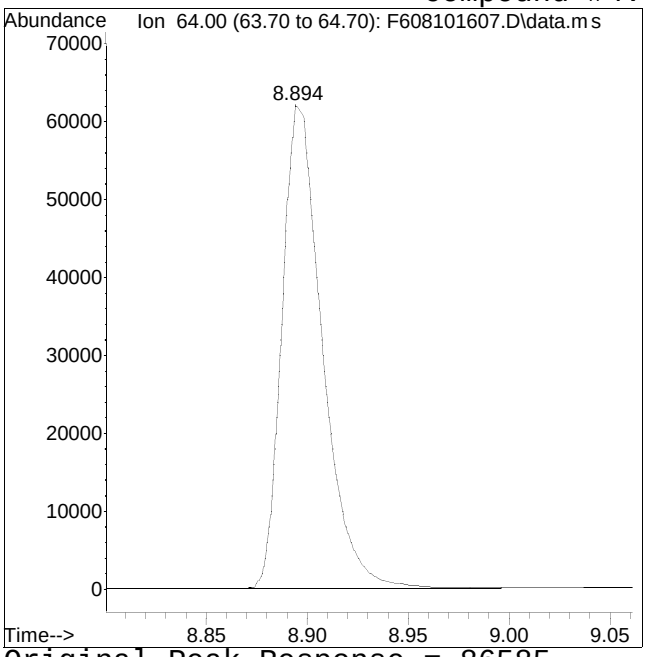
Manual Peak Response = 120017 M4

M4 = Poor automated baseline construction.

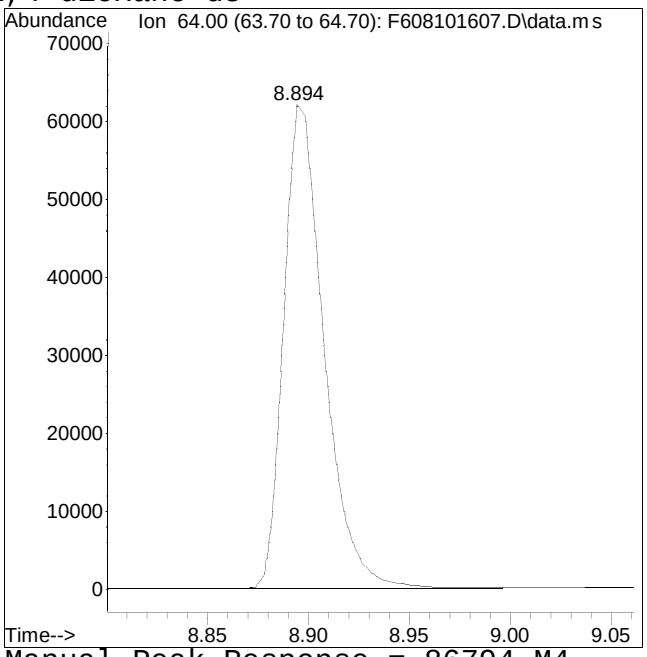
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101607.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 4:36 pm Instrument : BNA6
Sample : I608101604 Quant Date : 8/11/2016 12:53 pm

Compound #4: 1,4-dioxane-d8



Original Peak Response = 86585



Manual Peak Response = 86794 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101608.D
Acq On : 10 Aug 2016 5:21 pm
Operator : BNA6:SF
Sample : I608101605
Misc : WG921943,MSAK15
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 11 12:53:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	83650	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	200518	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	83650	482.016	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 96.40%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.971	88	245983	1025.987	ng/mL	99

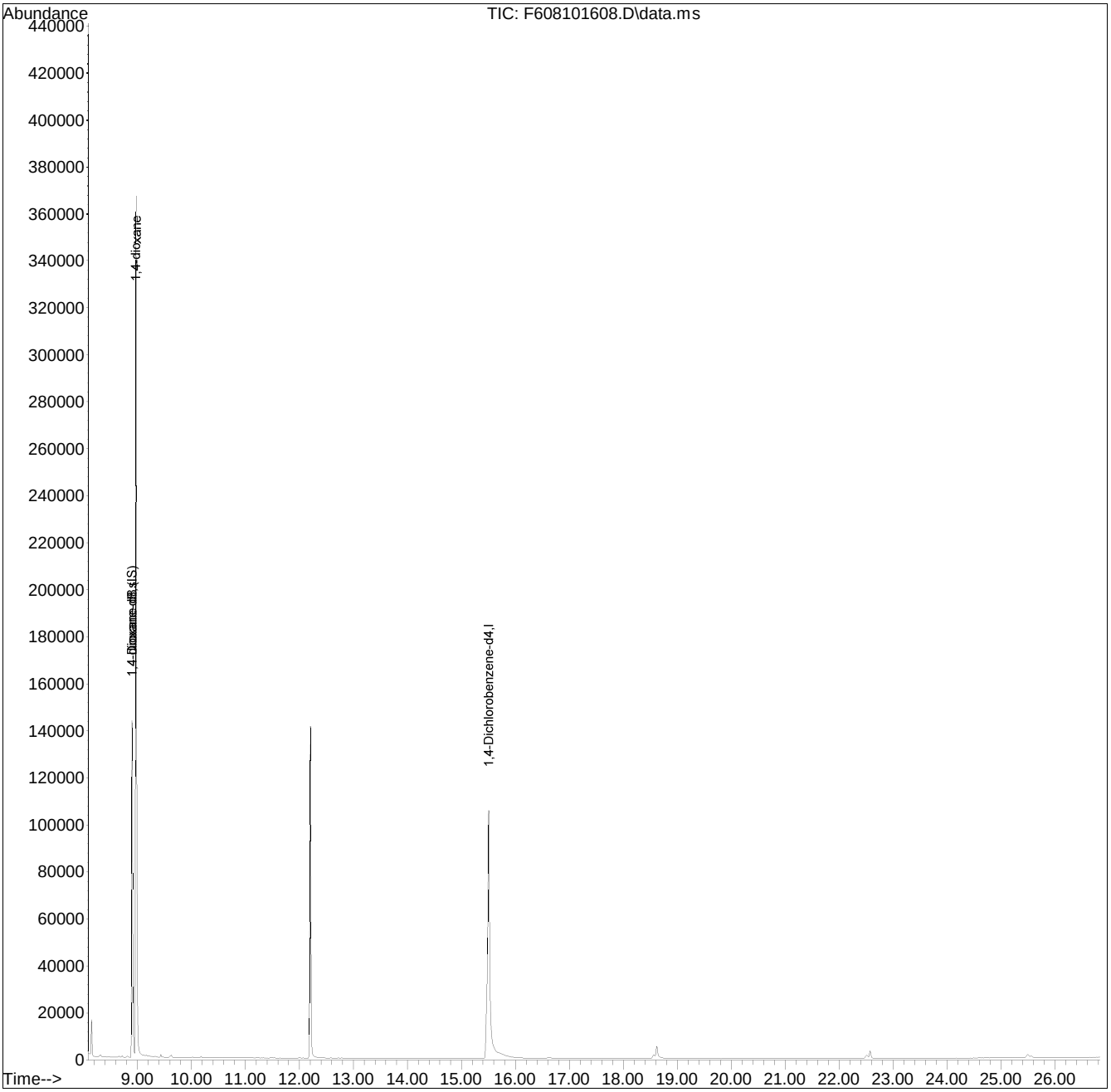
(#) = qualifier out of range (m) = manual integration (+) = signals summed

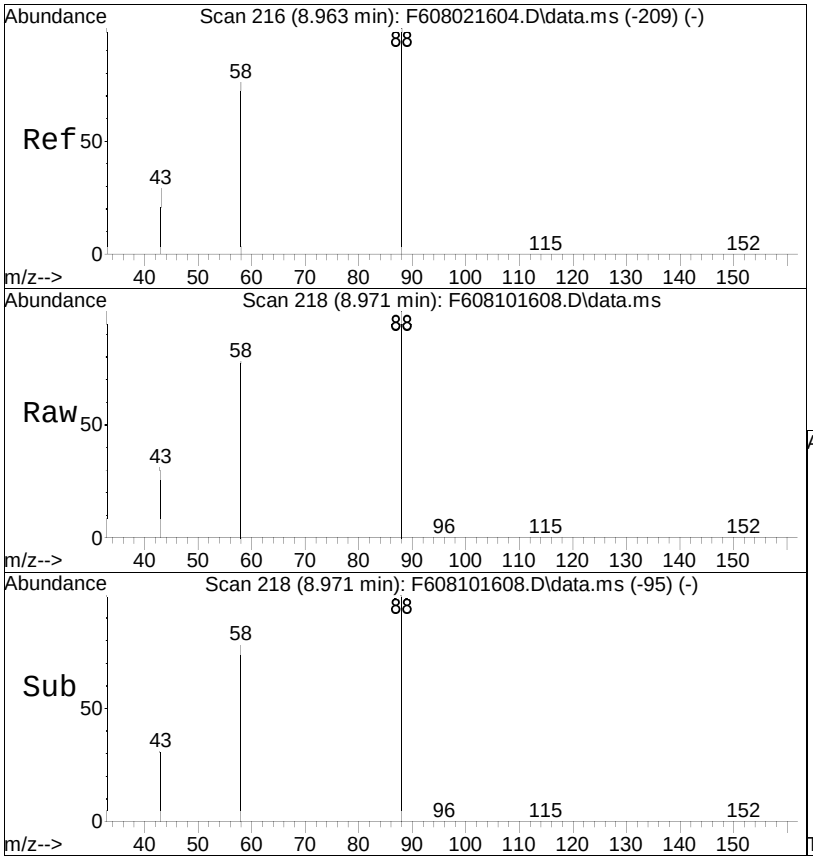
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101608.D
Acq On : 10 Aug 2016 5:21 pm
Operator : BNA6:SF
Sample : I608101605
Misc : WG921943,MSAK15
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 11 12:53:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

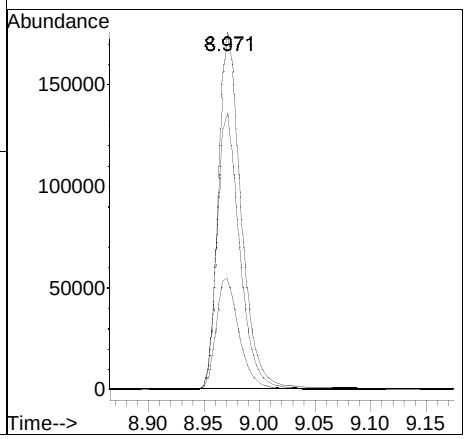




#2
1,4-dioxane
Concen: 1025.99 ng/mL
RT: 8.971 min Scan# 218
Delta R.T. 0.000 min
Lab File: F608101608.D
Acq: 10 Aug 2016 5:21 pm

Tgt Ion: 88 Resp: 245983

Ion	Ratio	Lower	Upper
88	100		
58	78.3	62.1	93.1
43	31.7	24.4	36.6



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101608.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 5:21 pm	Instrument	: BNA6
Sample	: I608101605	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101609.D
Acq On : 10 Aug 2016 6:06 pm
Operator : BNA6:SF
Sample : I608101606
Misc : WG921943,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 11 12:53:40 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	84632M4	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	191584	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	84626M4	510.379	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.08%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.963	88	1199636	4945.586	ng/mL	99

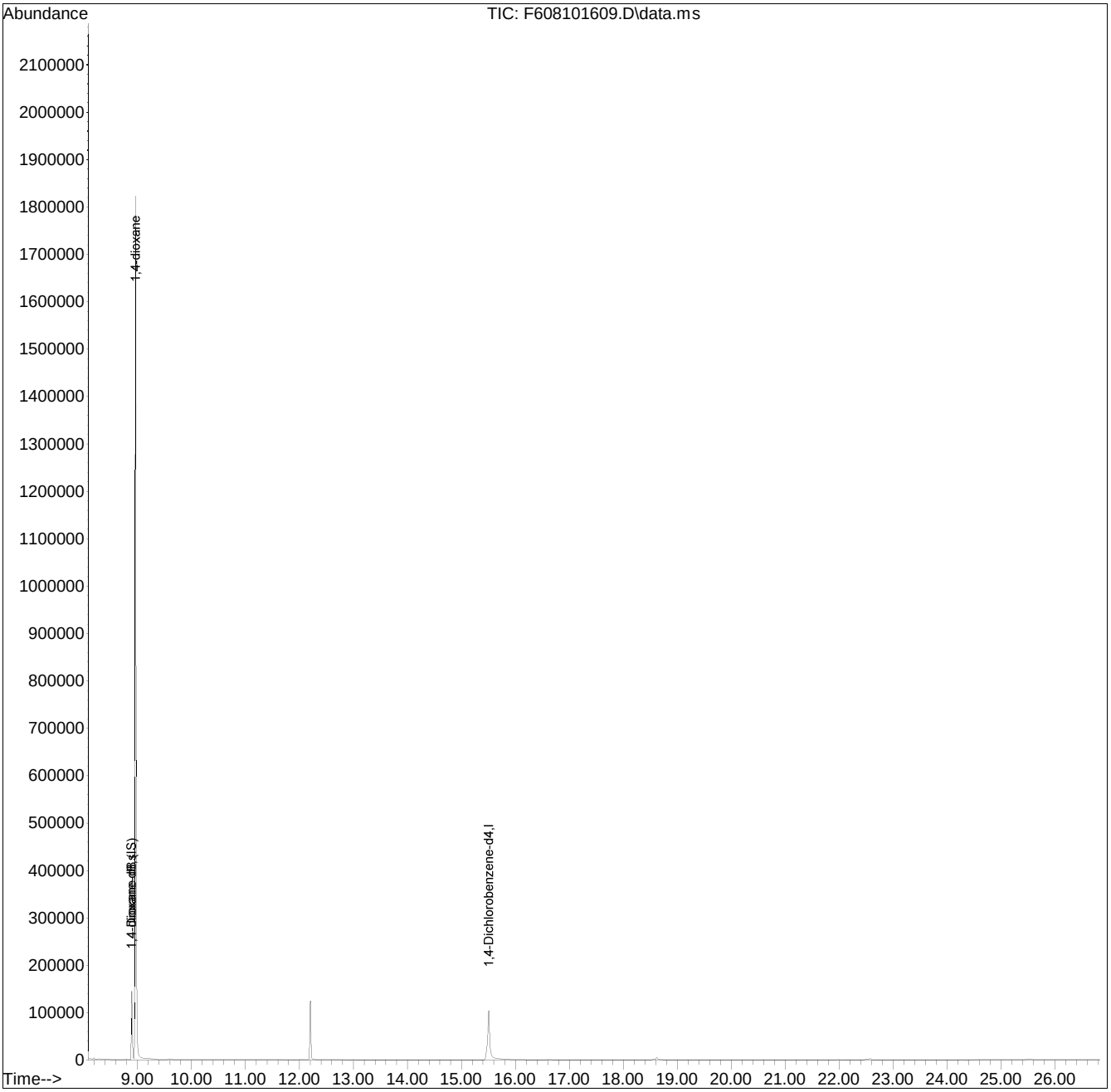
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101609.D
Acq On : 10 Aug 2016 6:06 pm
Operator : BNA6:SF
Sample : I608101606
Misc : WG921943,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 11 12:53:40 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

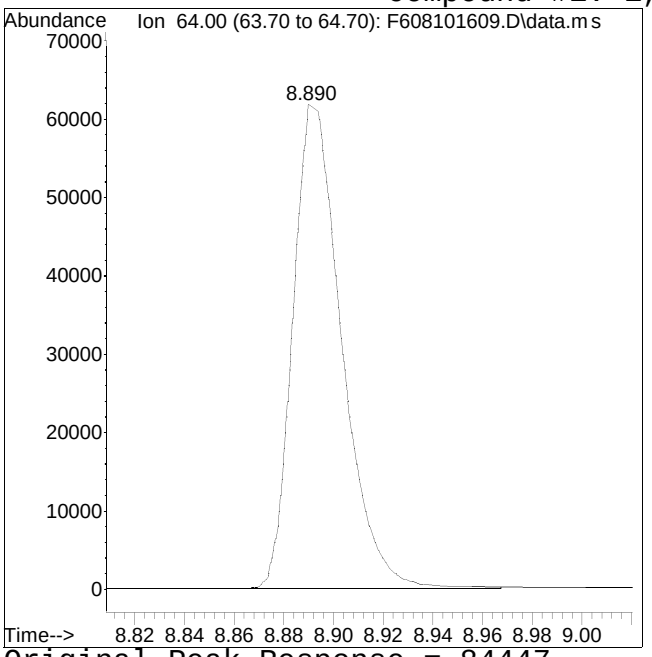
Sub List : Default - All compounds listed



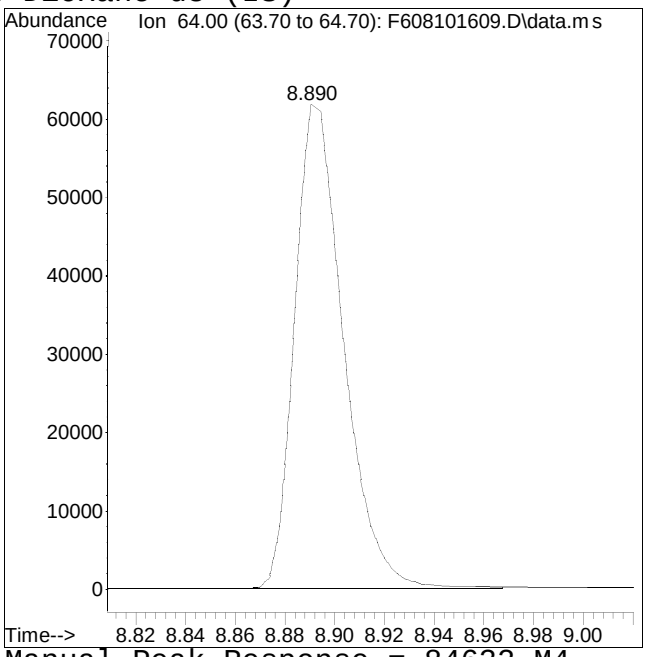
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101609.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 6:06 pm Instrument : BNA6
Sample : I608101606 Quant Date : 8/11/2016 12:53 pm

Compound #1: 1,4-Dioxane-d8 (IS)



Original Peak Response = 84447



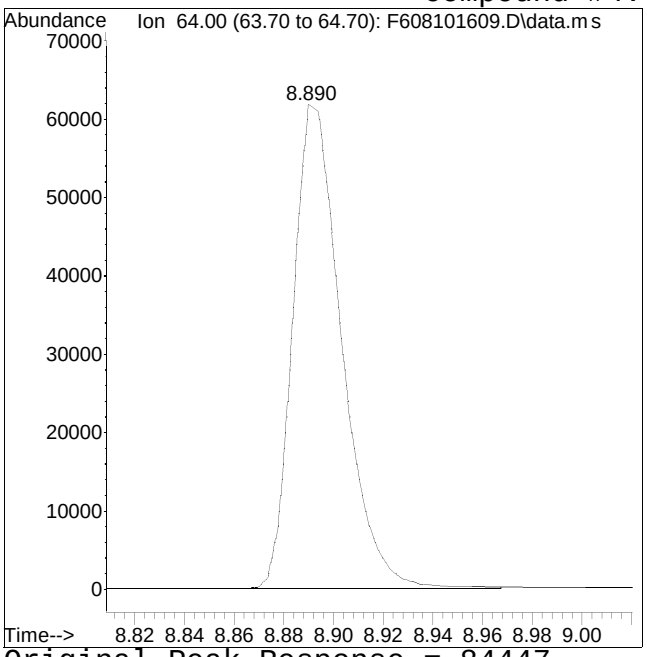
Manual Peak Response = 84632 M4

M4 = Poor automated baseline construction.

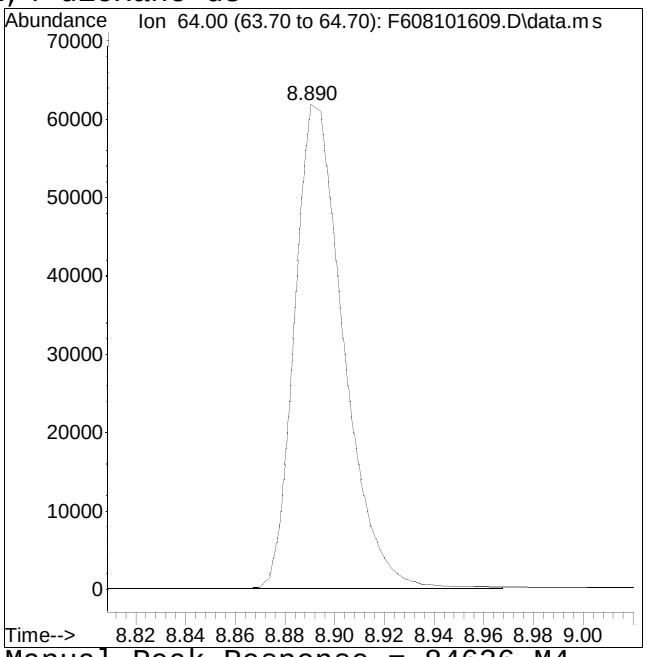
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101609.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 6:06 pm Instrument : BNA6
Sample : I608101606 Quant Date : 8/11/2016 12:53 pm

Compound #4: 1,4-dioxane-d8



Original Peak Response = 84447



Manual Peak Response = 84626 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101610.D
Acq On : 10 Aug 2016 6:51 pm
Operator : BNA6:SF
Sample : I608101607
Misc : WG921943,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 11 12:53:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.882	64	82789	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.503	152	190429	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.882	64	82789	502.329	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 100.47%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	2326389	9804.210	ng/mL	99

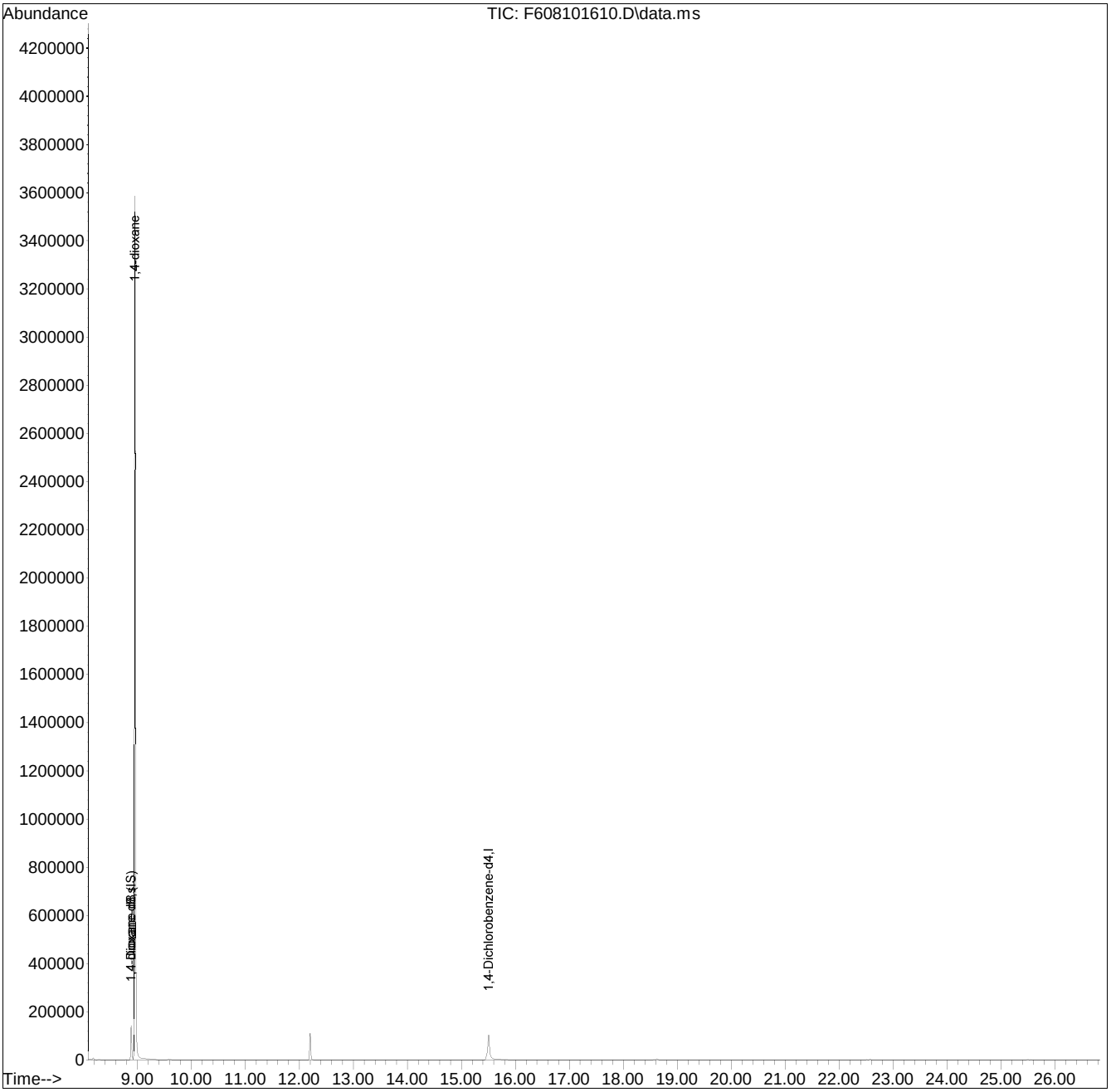
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101610.D
Acq On : 10 Aug 2016 6:51 pm
Operator : BNA6:SF
Sample : I608101607
Misc : WG921943,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 11 12:53:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101610.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 6:51 pm	Instrument	: BNA6
Sample	: I608101607	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	98	0.00
2	1,4-dioxane	1.433	1.360	5.1	91	0.00
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
4 s	1,4-dioxane-d8	0.433	0.442	-2.1	97	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	82343	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	186413	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	82343	510.386	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.08%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.968	88	223932	948.839	ng/mL	99

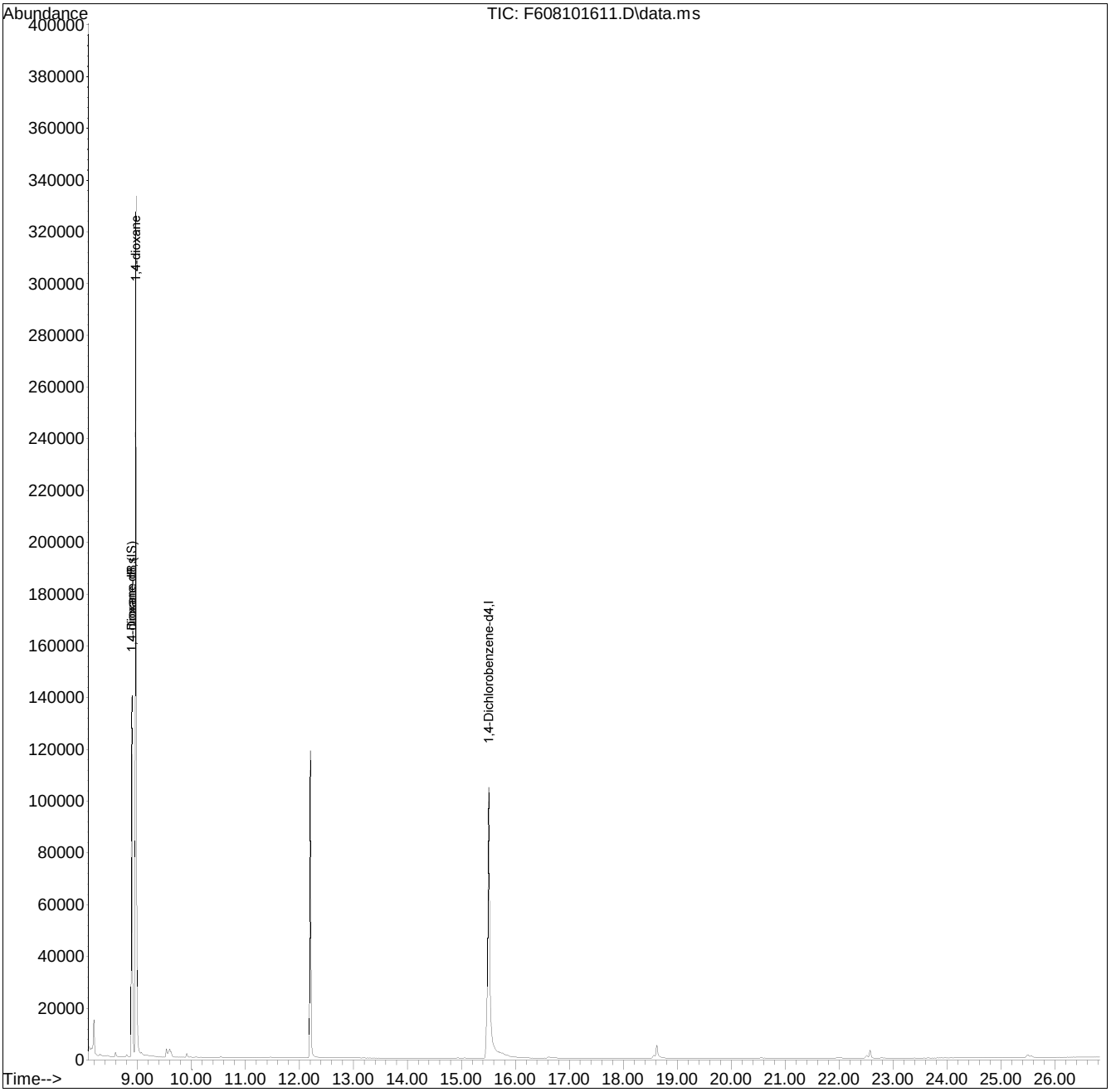
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101611.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 7:36 pm	Instrument	: BNA6
Sample	: CQ608101601	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 20 2016, 04:11 pm

Work Group: WG925191 for Department: 2 Organic Preparation

Created: 23-AUG-16 Due: Operator: DR

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1626118-01	SC-1-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-02	SW-11-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-03	SW-PAB-00-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-04	SR3-POND-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-05	SR3-SEEP-1-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-06	SR3-SEEP-2-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-07	SW-PAB-01-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-08	SW-PAB-01A-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-09	SW-MRB-00-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-10	SW-NOB-02-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-11	SW-PAB-04-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-12	SW-SP-01-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-13	SW-03-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-14	SW-04-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-15	SW-MRB-03-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-16	SW-MRB-02-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
L1626118-17	FB-03-081916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0826	0826	S0	Amber-A.5
WG925191-1	Laboratory Method Bl	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG925191-2	Laboratory Control S	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG925191-3	LCS Duplicate	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG925191-4	Matrix Spike	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG925191-5	Matrix Spike Duplica	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				

Comments:

WG925191-3	WG925191-2
WG925191-4	L1626118-04
WG925191-5	L1626118-04

Sequence Logs

Analysis log File

SF 081116

Total Files Reported in Log : 11
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Aug\Aug10\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F608101601.D	14DIOXDFTPPB	TUNE	MSAK38	8/10/2016 11:28 am
2	F608101602.D	14DIOXBNA6.M	CCV	MSAK15	8/10/2016 12:25 pm
3	F608101603.D	14DIOXDFTPPB	T608101601	WG921943,MSAK38	8/10/2016 1:25 pm
4	F608101604.D	14DIOXBNA6.M	I608101601	WG921943,MSAJ77	8/10/2016 2:22 pm
5	F608101605.D	14DIOXBNA6.M	I608101602	WG921943,MSAJ78	8/10/2016 3:07 pm
6	F608101606.D	14DIOXBNA6.M	I608101603	WG921943,MSAJ79	8/10/2016 3:51 pm
7	F608101607.D	14DIOXBNA6.M	I608101604	WG921943,MSAJ80	8/10/2016 4:36 pm
8	F608101608.D	14DIOXBNA6.M	I608101605	WG921943,MSAK15	8/10/2016 5:21 pm
9	F608101609.D	14DIOXBNA6.M	I608101606	WG921943,MSAJ82	8/10/2016 6:06 pm
10	F608101610.D	14DIOXBNA6.M	I608101607	WG921943,MSAJ76	8/10/2016 6:51 pm
11	F608101611.D	14DIOXBNA6.M	CQ608101601	WG921943,MSAJ49	8/10/2016 7:36 pm

Analysis log File

Total Files Reported in Log : 26
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Aug\Aug24\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F608241601.D	14DIOXDFTPPB	WG925553-1	WG925553,MSAK38	8/24/2016 8:58 am
2	F608241602.D	14DIOXBNA6.M	WG925553-3	WG925553,MSAK15	8/24/2016 9:54 am
3	F608241603.D	14DIOXBNA6.M	WG925191-1	WG925553,WG925191..	8/24/2016 12:40 pm
4	F608241604.D	14DIOXBNA6.M	WG925191-2	WG925553,WG925191..	8/24/2016 1:24 pm
5	F608241605.D	14DIOXBNA6.M	WG925191-3	WG925553,WG925191..	8/24/2016 2:09 pm
6	F608241606.D	14DIOXBNA6.M	L1626118-01	WG925553,WG925191..	8/24/2016 2:54 pm
7	F608241607.D	14DIOXBNA6.M	L1626118-02	WG925553,WG925191..	8/24/2016 3:39 pm
8	F608241608.D	14DIOXBNA6.M	L1626118-03	WG925553,WG925191..	8/24/2016 4:23 pm
9	F608241609.D	14DIOXBNA6.M	L1626118-04	WG925553,WG925191..	8/24/2016 5:08 pm
10	F608241610.D	14DIOXBNA6.M	WG925191-4	WG925553,WG925191..	8/24/2016 5:53 pm
11	F608241611.D	14DIOXBNA6.M	WG925191-5	WG925553,WG925191..	8/24/2016 6:38 pm
12	F608241612.D	14DIOXBNA6.M	L1626118-05	WG925553,WG925191..	8/24/2016 7:22 pm
13	F608241613.D	14DIOXDFTPPB	WG925553-4	WG925553,MSAK38	8/24/2016 8:02 pm
14	F608241614.D	14DIOXBNA6.M	WG925553-6	WG925553,MSAK15	8/24/2016 8:59 pm
15	F608241615.D	14DIOXBNA6.M	L1626118-06	WG925553,WG925191..	8/24/2016 9:43 pm
16	F608241616.D	14DIOXBNA6.M	L1626118-07	WG925553,WG925191..	8/24/2016 10:27 pm
17	F608241617.D	14DIOXBNA6.M	L1626118-08	WG925553,WG925191..	8/24/2016 11:10 pm
18	F608241618.D	14DIOXBNA6.M	L1626118-09	WG925553,WG925191..	8/24/2016 11:54 pm
19	F608241619.D	14DIOXBNA6.M	L1626118-10	WG925553,WG925191..	8/25/2016 12:38 am
20	F608241620.D	14DIOXBNA6.M	L1626118-11	WG925553,WG925191..	8/25/2016 1:22 am
21	F608241621.D	14DIOXBNA6.M	L1626118-12	WG925553,WG925191..	8/25/2016 2:06 am
22	F608241622.D	14DIOXBNA6.M	L1626118-13	WG925553,WG925191..	8/25/2016 2:50 am
23	F608241623.D	14DIOXBNA6.M	L1626118-14	WG925553,WG925191..	8/25/2016 3:34 am
24	F608241624.D	14DIOXBNA6.M	L1626118-15	WG925553,WG925191..	8/25/2016 4:17 am
25	F608241625.D	14DIOXBNA6.M	L1626118-16	WG925553,WG925191..	8/25/2016 5:01 am
26	F608241626.D	14DIOXBNA6.M	L1626118-17	WG925553,WG925191..	8/25/2016 5:45 am

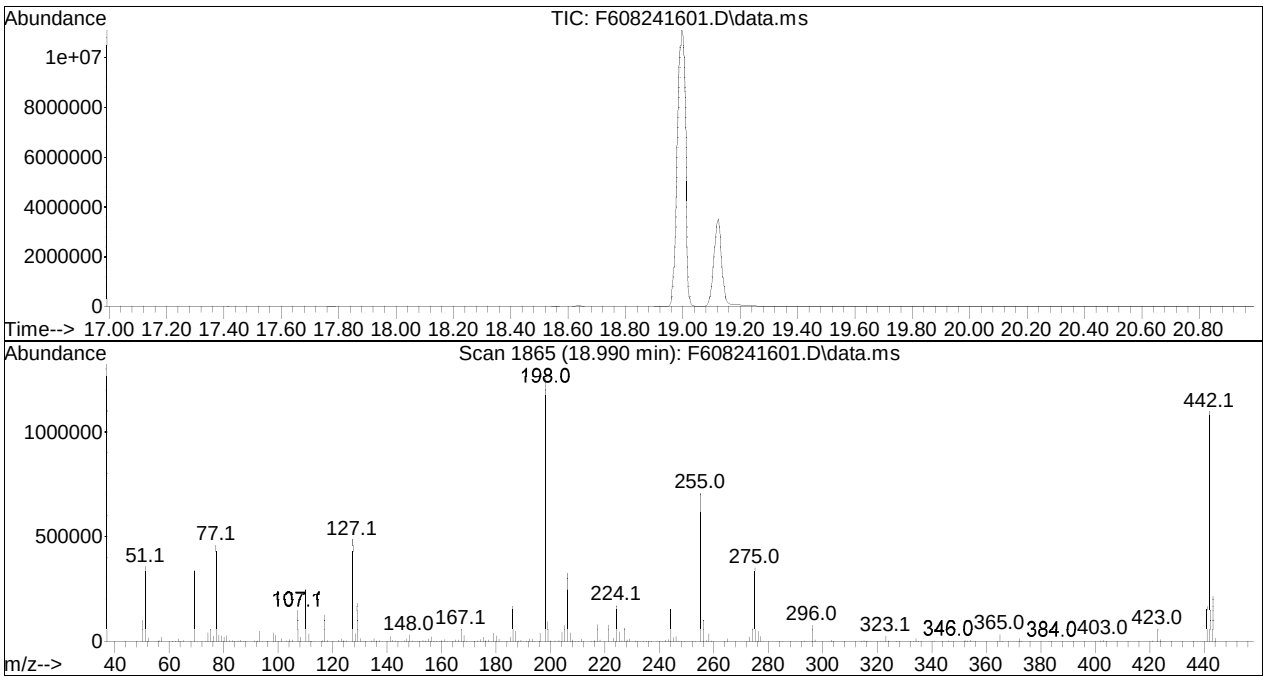
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241601.D
Acq On : 24 Aug 2016 8:58 am
Operator : BNA6:WR
Sample : WG925553-1
Misc : WG925553,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



Spectrum Information: Scan 1865

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.2	355200	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	1987	PASS
127	198	10	80	38.6	485696	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1259008	PASS
199	198	5	9	7.2	90728	PASS
275	198	10	60	27.8	349632	PASS
365	198	1	100	2.7	33576	PASS
441	442	0.01	24	15.2	166528	PASS
442	198	50	100	87.1	1096704	PASS
443	442	15	24	19.8	216896	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241602.D
Acq On : 24 Aug 2016 9:54 am
Operator : BNA6:WR
Sample : WG925553-3
Misc : WG925553,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 24 12:21:09 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	86	-0.06
2	1,4-dioxane	1.433	1.441	-0.6	84	-0.06
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	87	-0.09
4 s	1,4-dioxane-d8	0.433	0.409	5.5	84	-0.06

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241602.D
Acq On : 24 Aug 2016 9:54 am
Operator : BNA6:WR
Sample : WG925553-3
Misc : WG925553,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 24 12:21:09 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.833	64	71651	500.000	ng/mL	-0.06
3) 1,4-Dichlorobenzene-d4	15.422	152	175005	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.833	64	71651	473.064	ng/mL	-0.06
Spiked Amount 500.000	Range 15 - 115		Recovery = 94.61%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.906	88	206439	1005.246	ng/mL	99

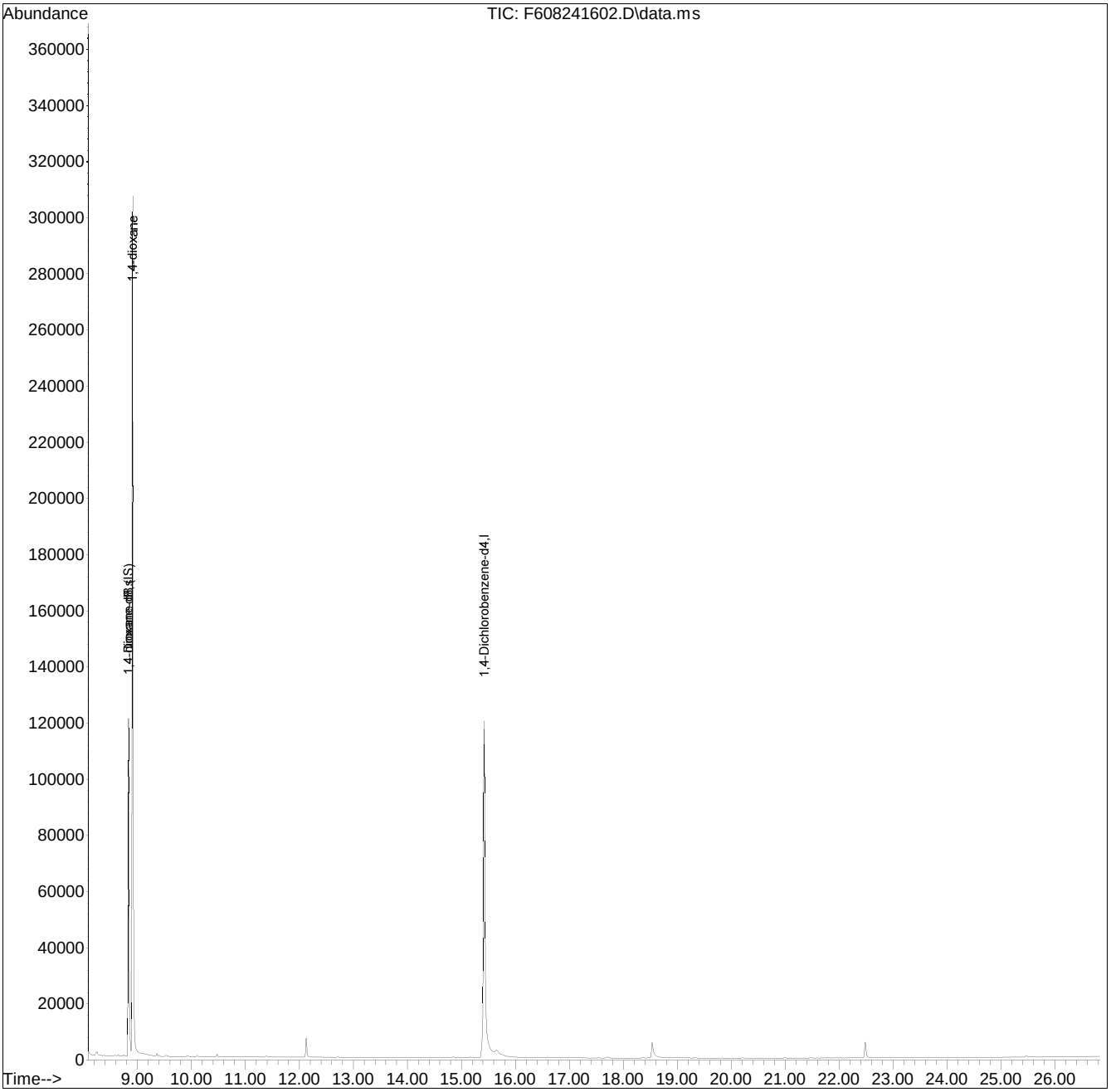
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241602.D
Acq On : 24 Aug 2016 9:54 am
Operator : BNA6:WR
Sample : WG925553-3
Misc : WG925553,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 24 12:21:09 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241606.D
Acq On : 24 Aug 2016 2:54 pm
Operator : BNA6:WR
Sample : L1626118-01
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 25 12:08:21 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.849	64	16774	500.000	ng/mL	-0.05
3) 1,4-Dichlorobenzene-d4	15.426	152	162901	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.849	64	16774	118.977	ng/mL	-0.05
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.80%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.931	88	4437M4	92.290	ng/mL	

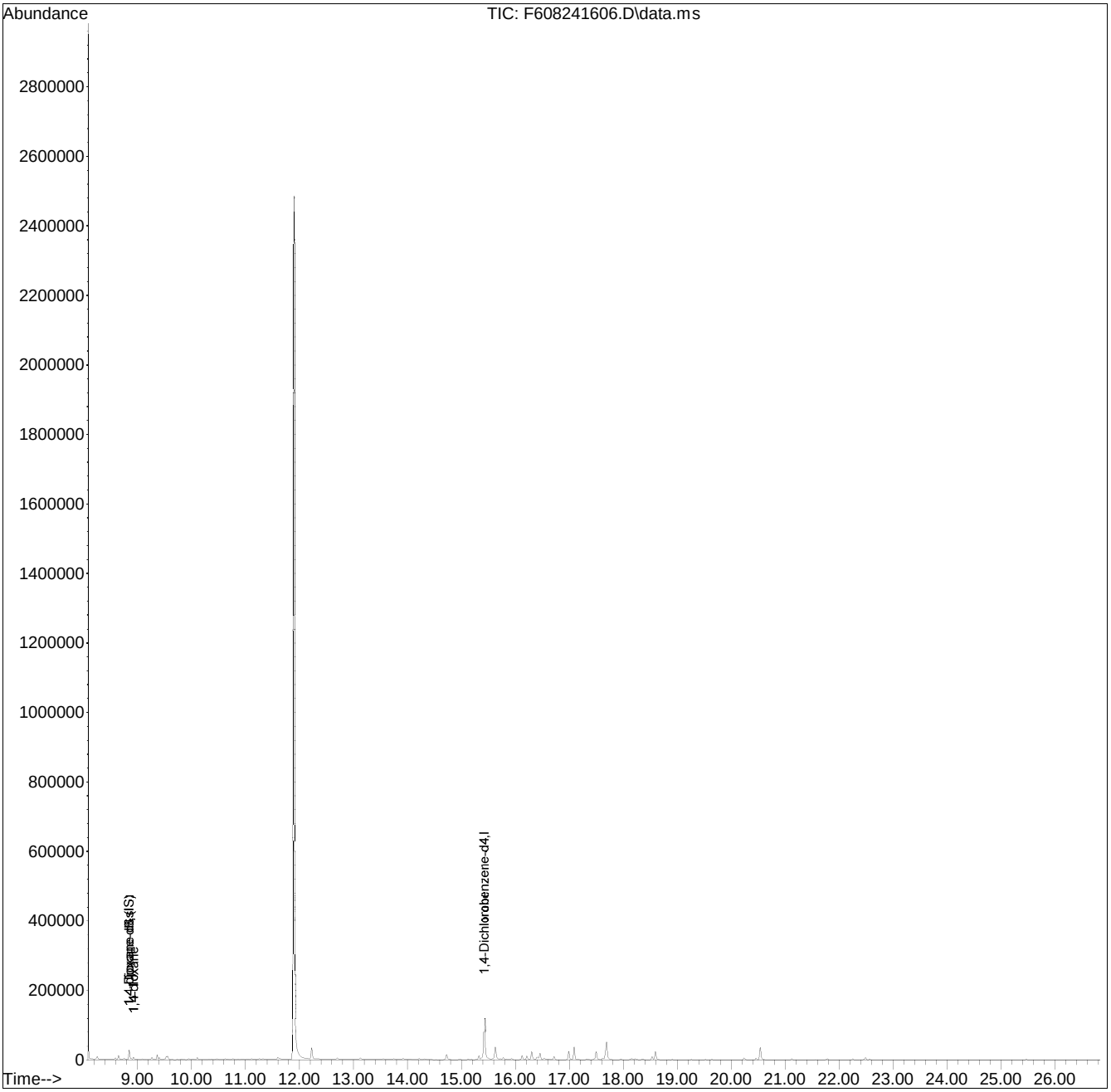
(#) = qualifier out of range (m) = manual integration (+) = signals summed

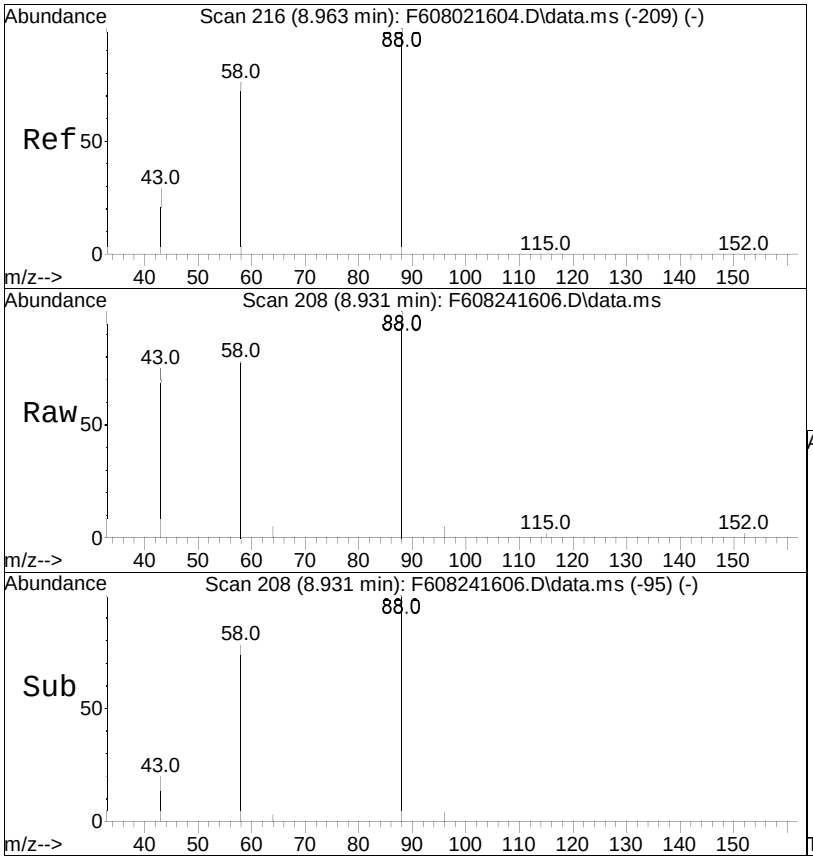
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241606.D
Acq On : 24 Aug 2016 2:54 pm
Operator : BNA6:WR
Sample : L1626118-01
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 25 12:08:21 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

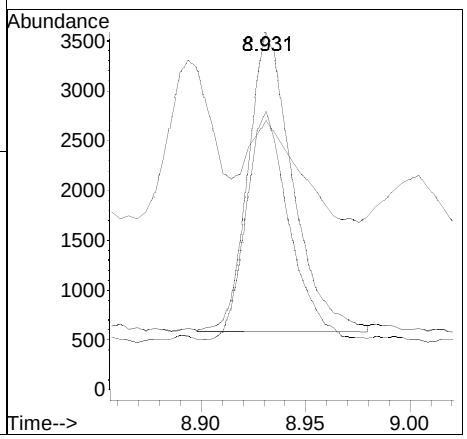




#2
1,4-dioxane
Concen: 92.29 ng/mL M4
RT: 8.931 min Scan# 208
Delta R.T. -0.041 min
Lab File: F608241606.D
Acq: 24 Aug 2016 2:54 pm

Tgt Ion: 88 Resp: 4437

Ion	Ratio	Lower	Upper
88	100		
58	74.4	62.1	93.1
43	40.2	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241607.D
Acq On : 24 Aug 2016 3:39 pm
Operator : BNA6:WR
Sample : L1626118-02
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 25 12:08:44 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.853	64	16681	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	159932	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.853	64	16681	120.513	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.10%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

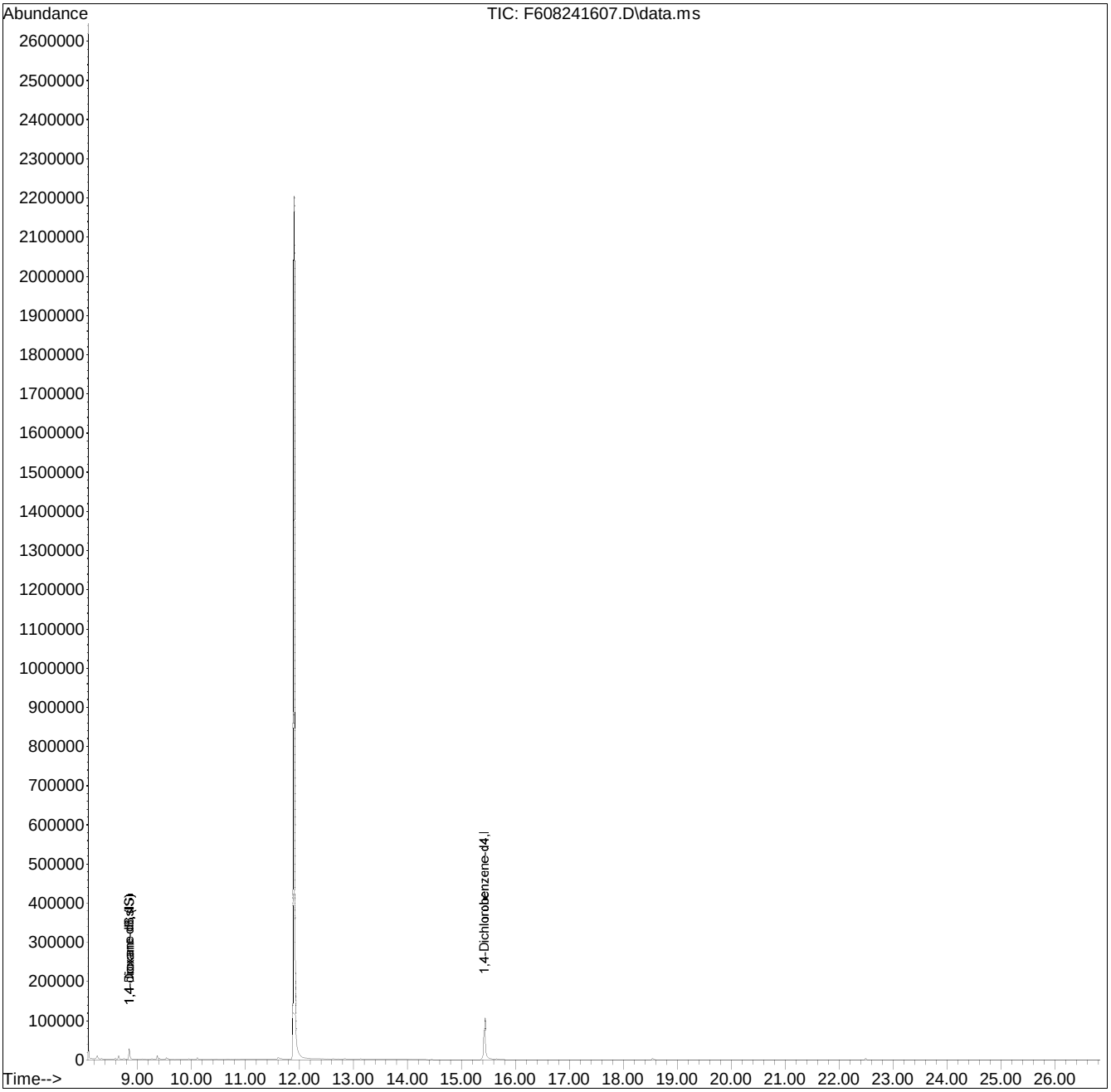
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241607.D
Acq On : 24 Aug 2016 3:39 pm
Operator : BNA6:WR
Sample : L1626118-02
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 25 12:08:44 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241608.D
Acq On : 24 Aug 2016 4:23 pm
Operator : BNA6:WR
Sample : L1626118-03
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 25 12:09:09 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.853	64	15446	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.430	152	146623	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.853	64	15446	121.720	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.34%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

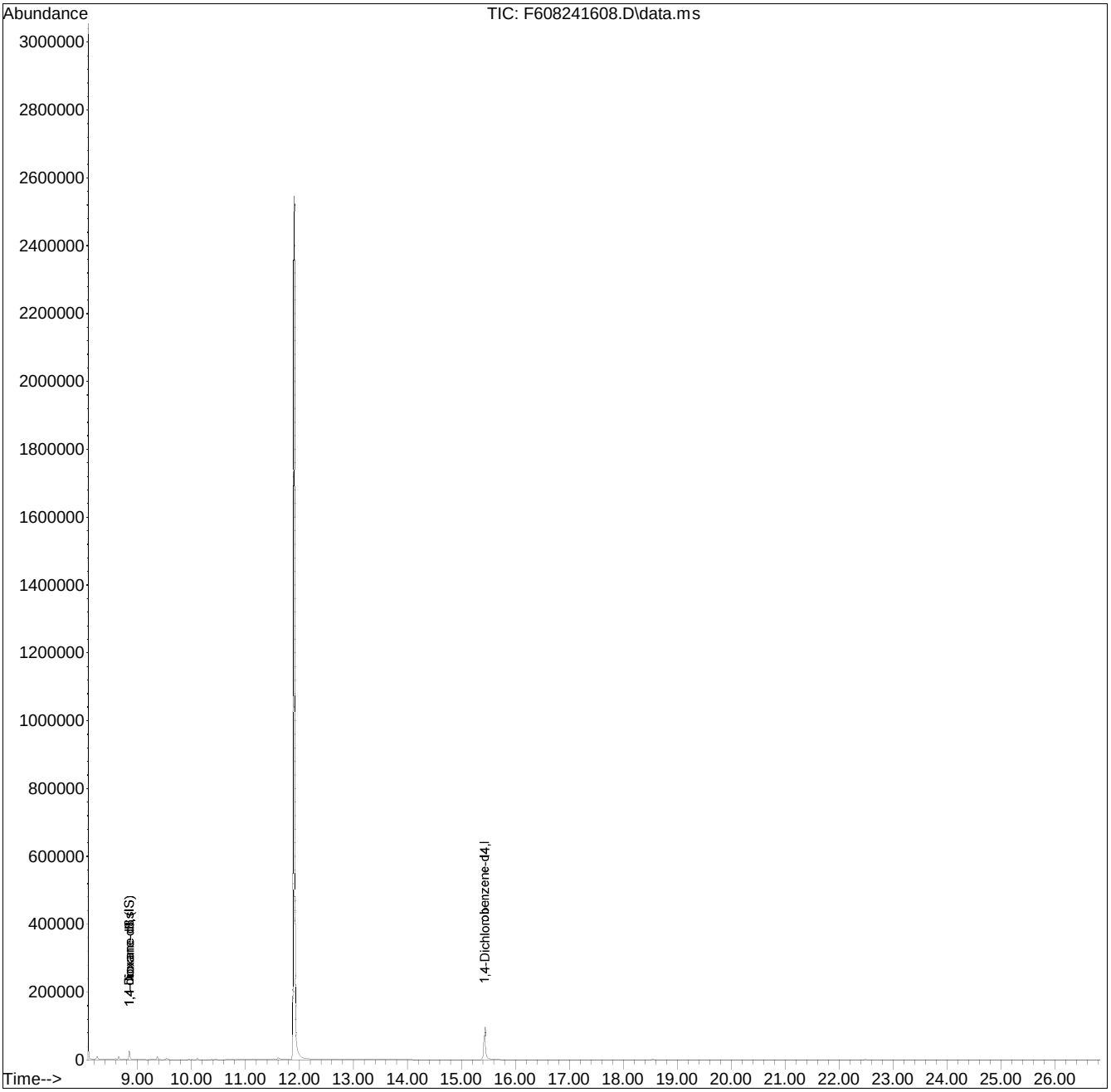
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241608.D
Acq On : 24 Aug 2016 4:23 pm
Operator : BNA6:WR
Sample : L1626118-03
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 25 12:09:09 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241609.D
Acq On : 24 Aug 2016 5:08 pm
Operator : BNA6:WR
Sample : L1626118-04
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 25 08:36:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.853	64	18019	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	156693	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.853	64	18019	132.871	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 26.57%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.931	88	15467	299.487	ng/mL	97

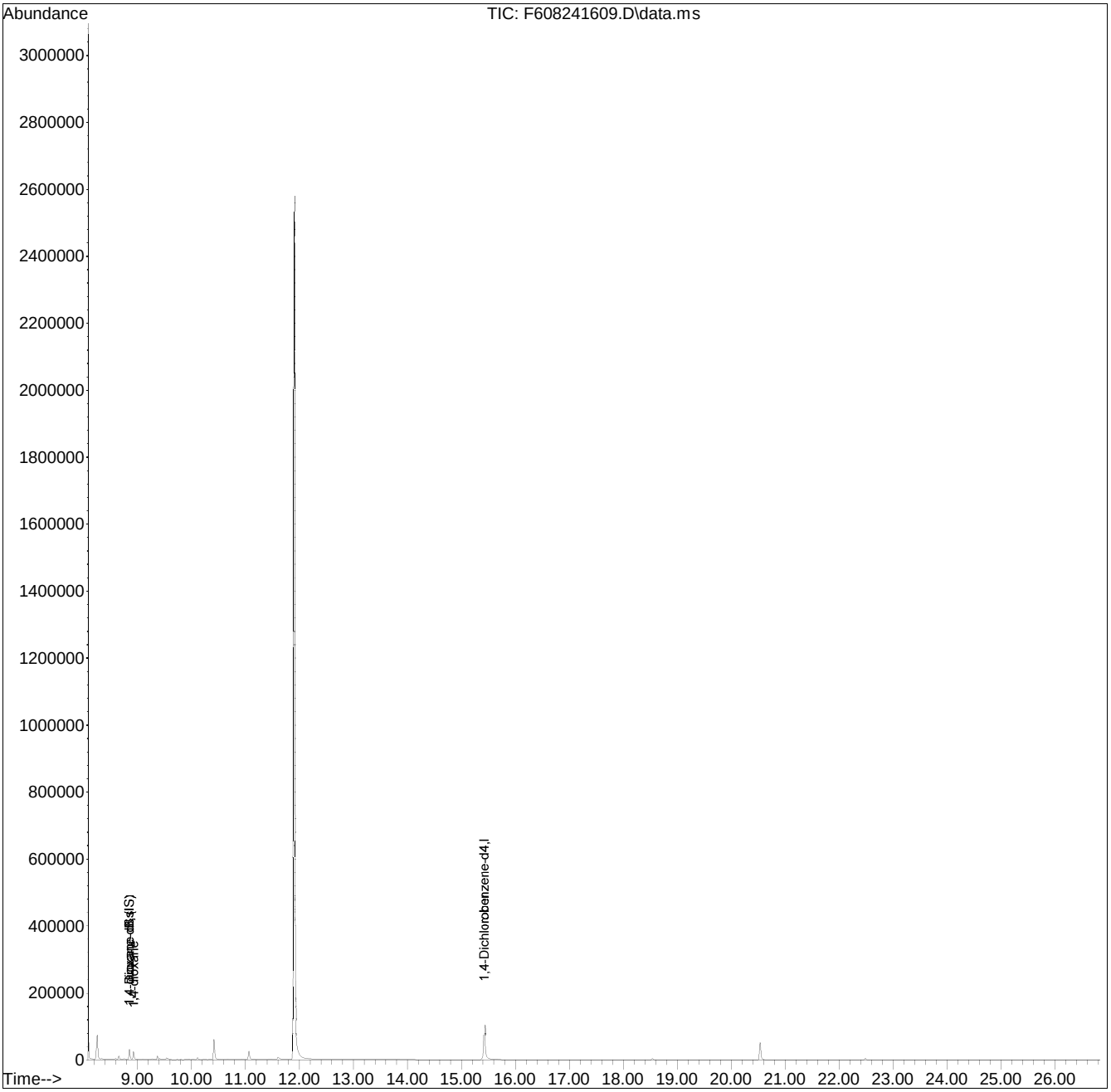
(#) = qualifier out of range (m) = manual integration (+) = signals summed

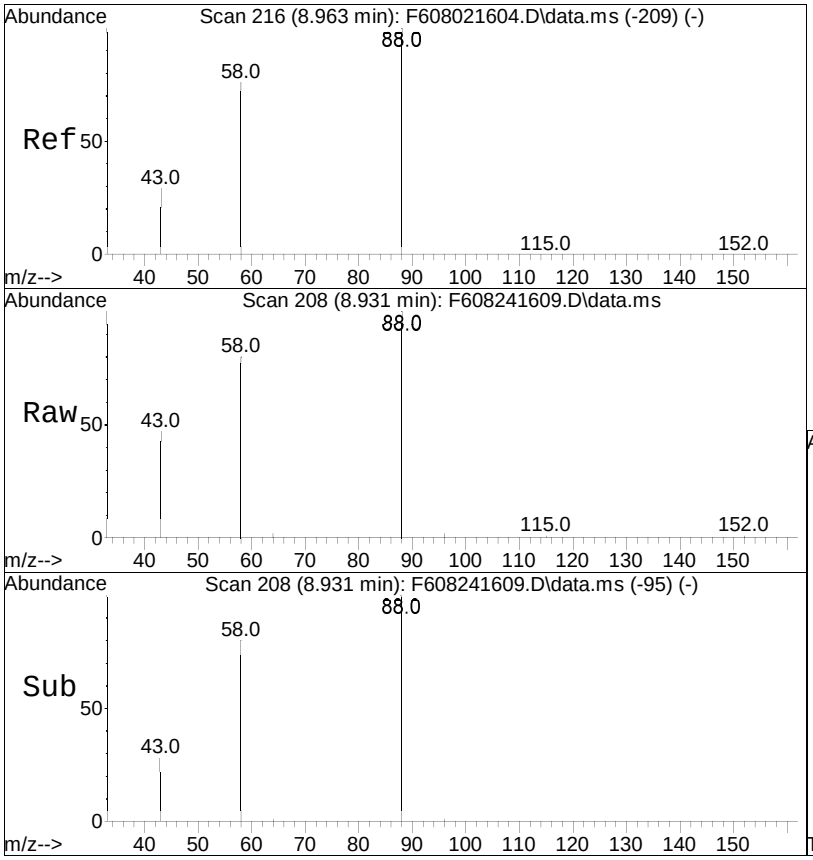
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241609.D
Acq On : 24 Aug 2016 5:08 pm
Operator : BNA6:WR
Sample : L1626118-04
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 25 08:36:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

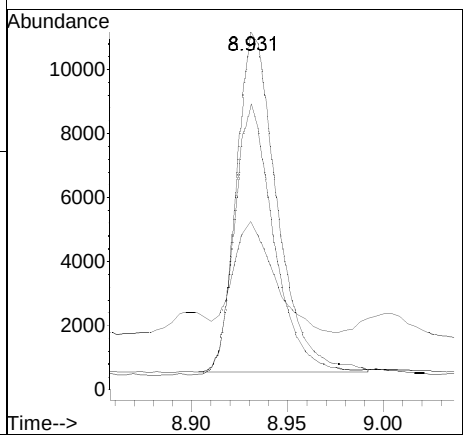




#2
1,4-dioxane
Concen: 299.49 ng/mL
RT: 8.931 min Scan# 208
Delta R.T. -0.041 min
Lab File: F608241609.D
Acq: 24 Aug 2016 5:08 pm

Tgt Ion: 88 Resp: 15467

Ion	Ratio	Lower	Upper
88	100		
58	78.2	62.1	93.1
43	35.4	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241612.D
Acq On : 24 Aug 2016 7:22 pm
Operator : BNA6:WR
Sample : L1626118-05
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 25 12:12:01 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.853	64	17433	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	156682	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.853	64	17433	128.559	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.71%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.931	88	15784M4	315.899	ng/mL	

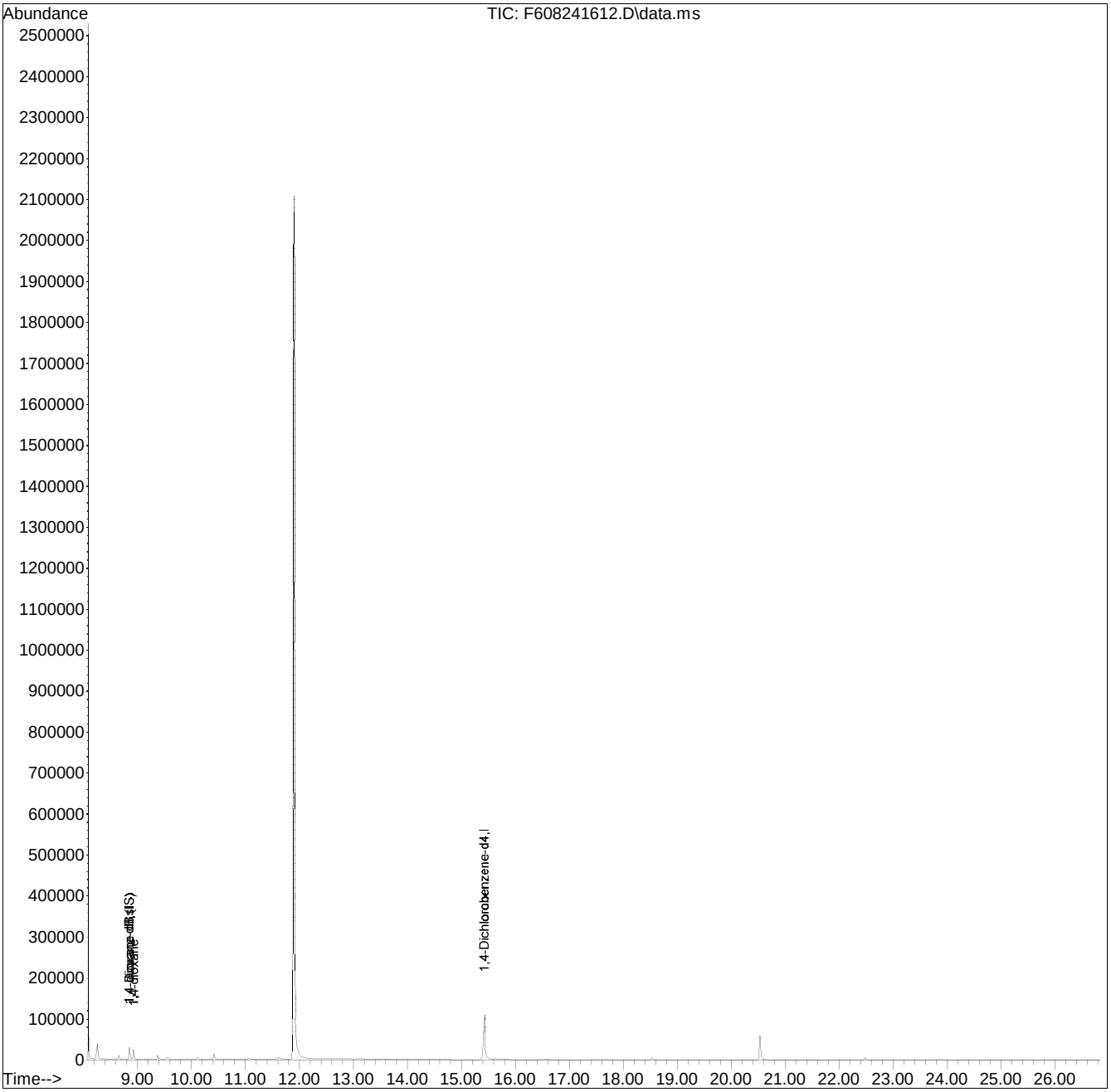
(#) = qualifier out of range (m) = manual integration (+) = signals summed

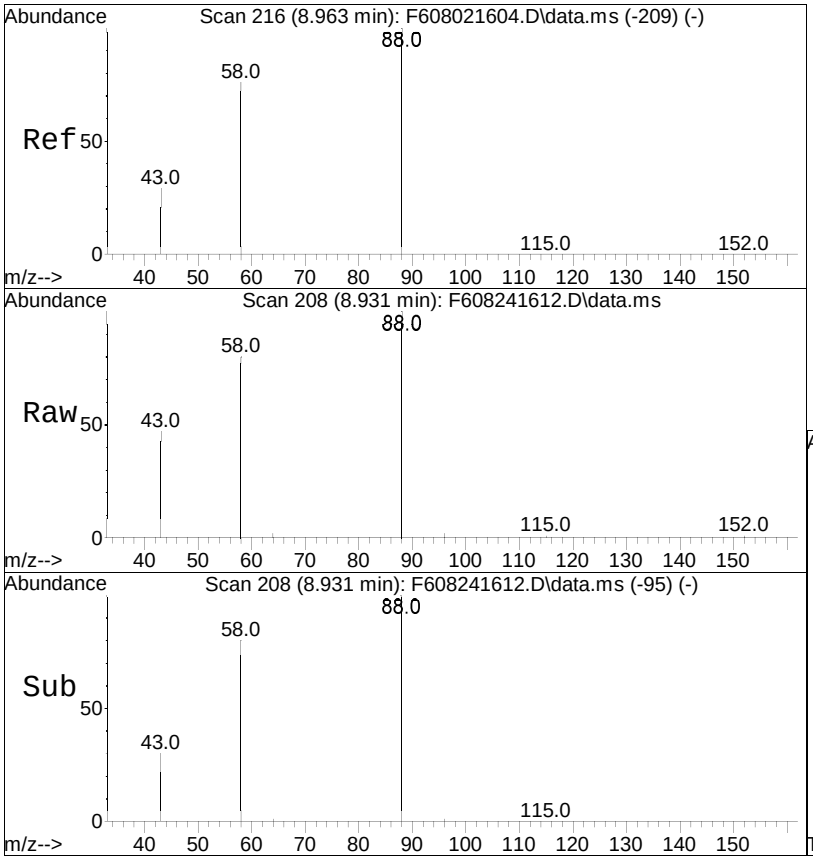
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241612.D
Acq On : 24 Aug 2016 7:22 pm
Operator : BNA6:WR
Sample : L1626118-05
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 25 12:12:01 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

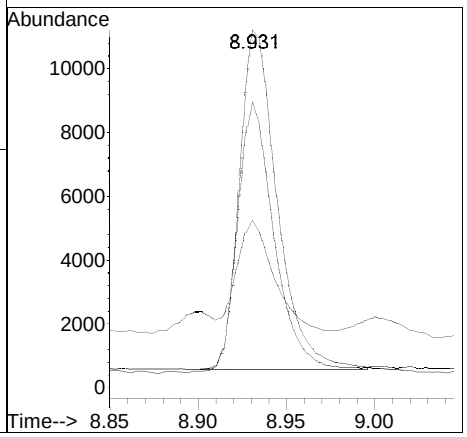




#2
1,4-dioxane
Concen: 315.90 ng/mL M4
RT: 8.931 min Scan# 208
Delta R.T. -0.041 min
Lab File: F608241612.D
Acq: 24 Aug 2016 7:22 pm

Tgt Ion: 88 Resp: 15784

Ion	Ratio	Lower	Upper
88	100		
58	76.6	62.1	93.1
43	35.1	24.4	36.6



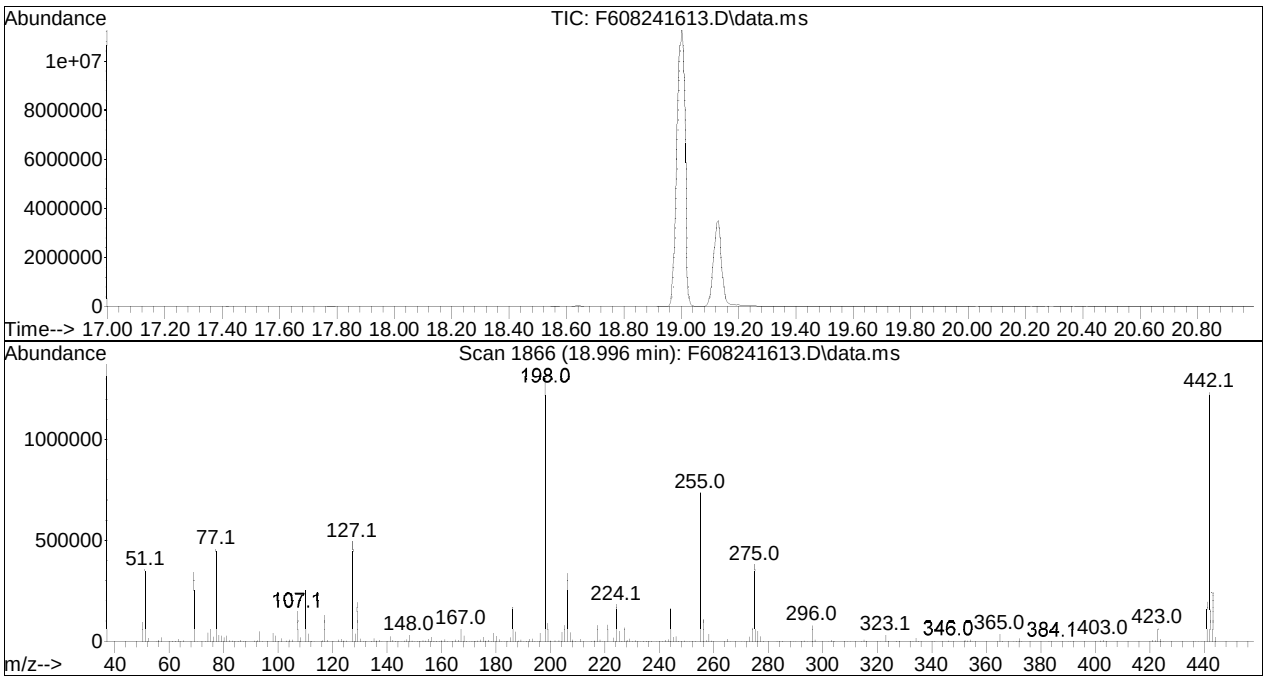
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241613.D
Acq On : 24 Aug 2016 8:02 pm
Operator : BNA6:WR
Sample : WG925553-4
Misc : WG925553,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



Spectrum Information: Scan 1866

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	27.1	354368	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2135	PASS
127	198	10	80	37.6	491456	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1306624	PASS
199	198	5	9	6.9	89960	PASS
275	198	10	60	29.0	379456	PASS
365	198	1	100	2.8	37104	PASS
441	442	0.01	24	15.6	192512	PASS
442	198	50	100	94.6	1235968	PASS
443	442	15	24	19.6	241728	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241614.D
Acq On : 24 Aug 2016 8:59 pm
Operator : BNA6:WR
Sample : WG925553-6
Misc : WG925553,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 25 08:34:55 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	85	-0.07
2	1,4-dioxane	1.433	1.458	-1.7	84	-0.07
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	87	-0.09
4 s	1,4-dioxane-d8	0.433	0.407	6.0	83	-0.07

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241614.D
Acq On : 24 Aug 2016 8:59 pm
Operator : BNA6:WR
Sample : WG925553-6
Misc : WG925553,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 25 08:34:55 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.825	64	70953	500.000	ng/mL	-0.07
3) 1,4-Dichlorobenzene-d4	15.422	152	174218	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.825	64	70953	470.572	ng/mL	-0.07
Spiked Amount 500.000	Range 15 - 115		Recovery = 94.11%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.902	88	206831	1017.063	ng/mL	99

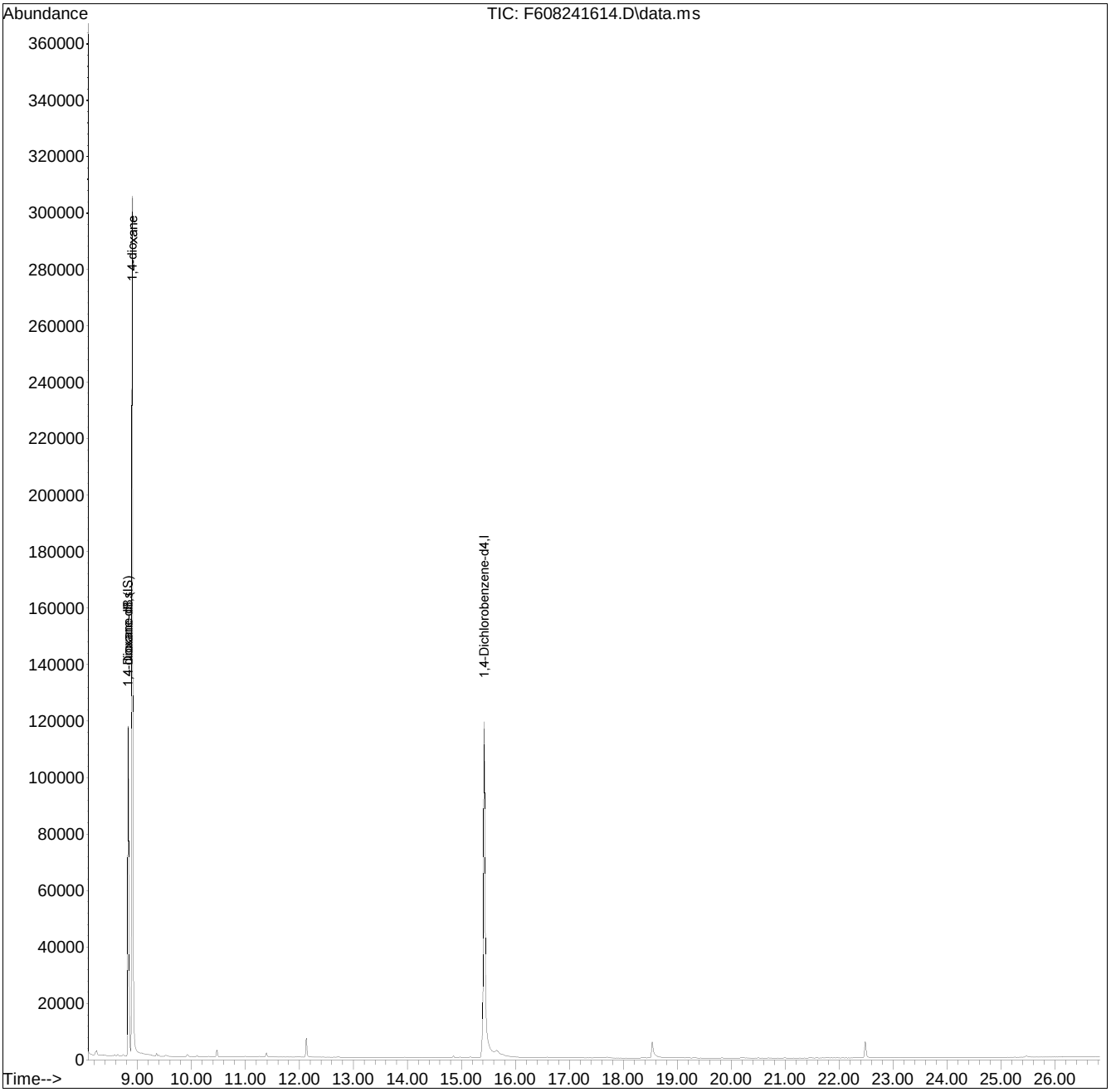
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241614.D
Acq On : 24 Aug 2016 8:59 pm
Operator : BNA6:WR
Sample : WG925553-6
Misc : WG925553,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 25 08:34:55 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241615.D
Acq On : 24 Aug 2016 9:43 pm
Operator : BNA6:WR
Sample : L1626118-06
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 25 12:12:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.858	64	18242	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	172318	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.858	64	18242	122.318	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.46%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.935	88	17224M4	329.431	ng/mL	

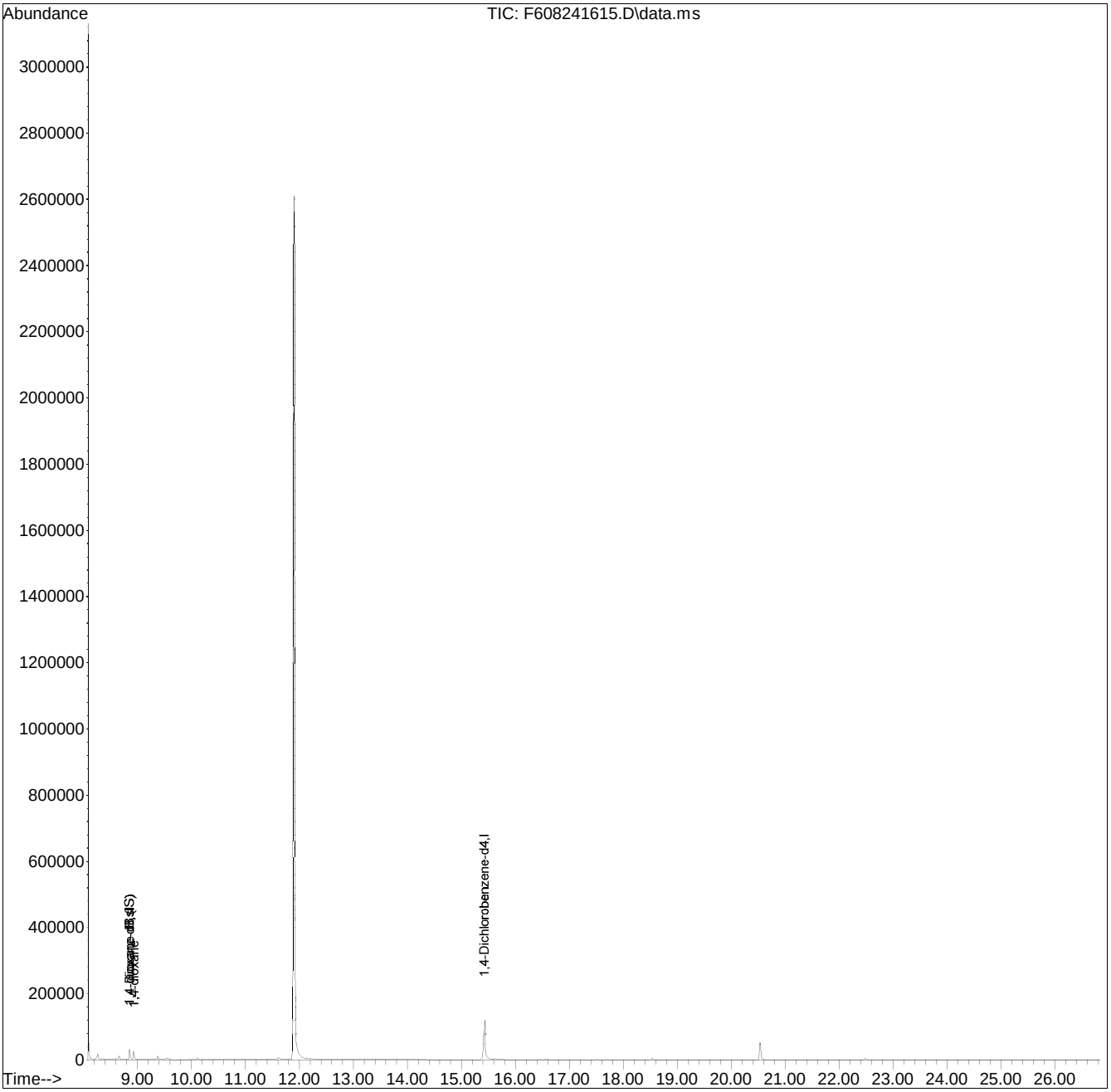
(#) = qualifier out of range (m) = manual integration (+) = signals summed

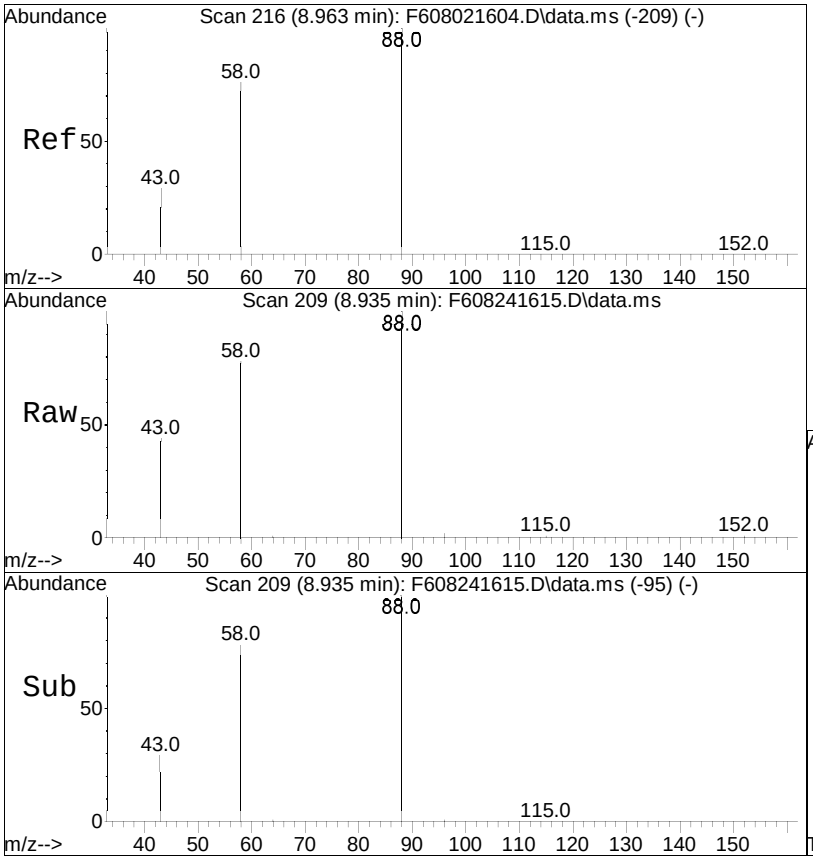
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241615.D
Acq On : 24 Aug 2016 9:43 pm
Operator : BNA6:WR
Sample : L1626118-06
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 25 12:12:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

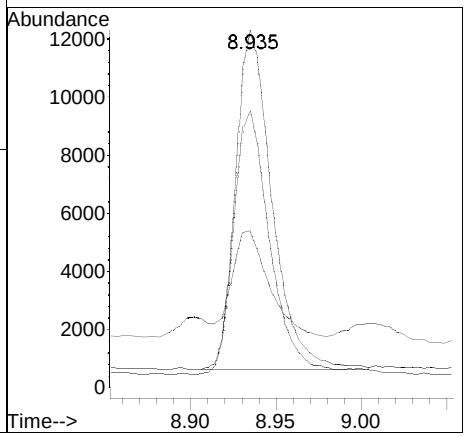




#2
1,4-dioxane
Concen: 329.43 ng/mL M4
RT: 8.935 min Scan# 209
Delta R.T. -0.036 min
Lab File: F608241615.D
Acq: 24 Aug 2016 9:43 pm

Tgt Ion: 88 Resp: 17224

Ion	Ratio	Lower	Upper
88	100		
58	77.2	62.1	93.1
43	32.6	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241616.D
Acq On : 24 Aug 2016 10:27 pm
Operator : BNA6:WR
Sample : L1626118-07
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 25 12:13:15 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.853	64	18577	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	164847	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.853	64	18577	130.210	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 26.04%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.931	88	7434M4	139.621	ng/mL	

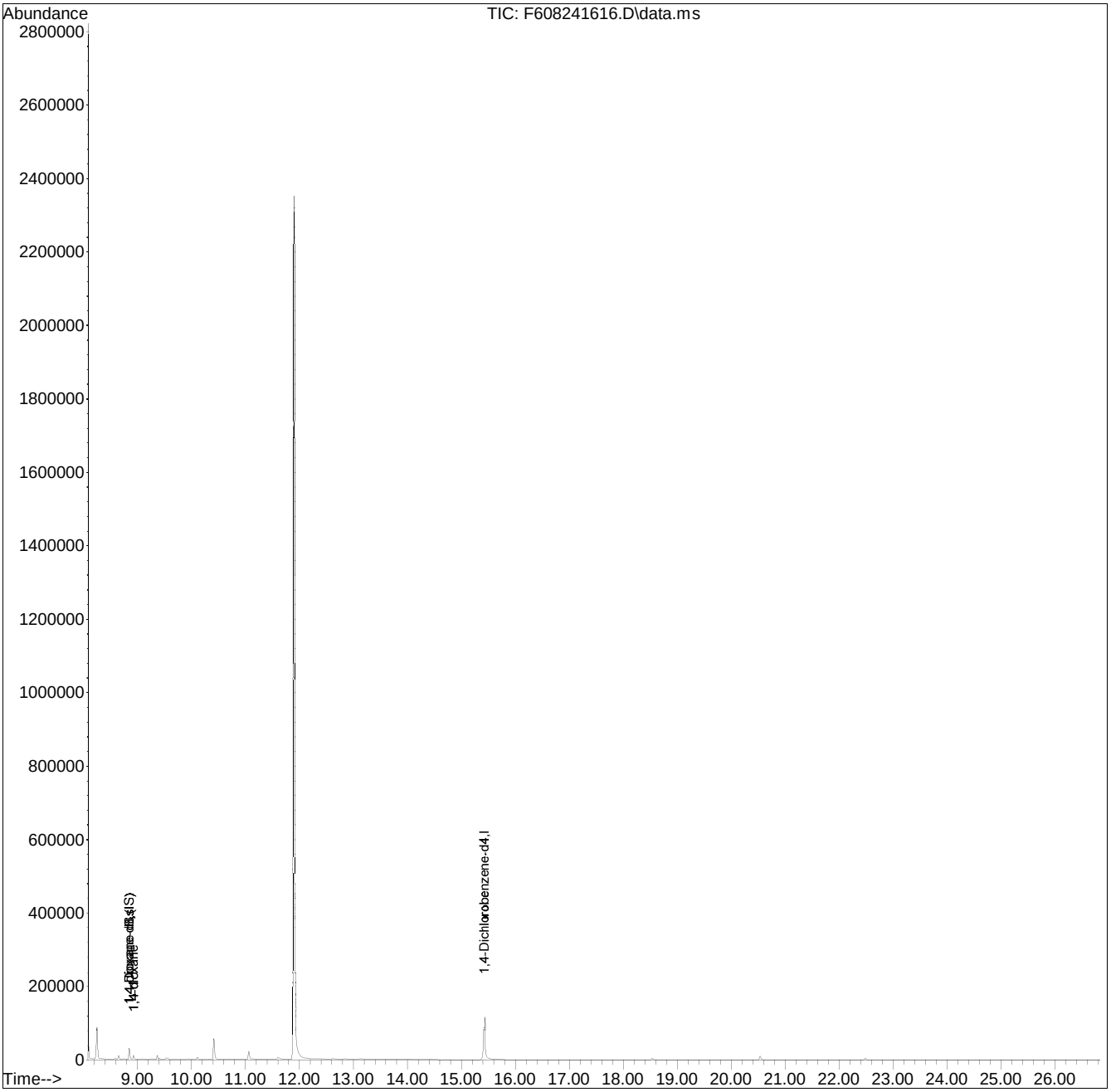
(#) = qualifier out of range (m) = manual integration (+) = signals summed

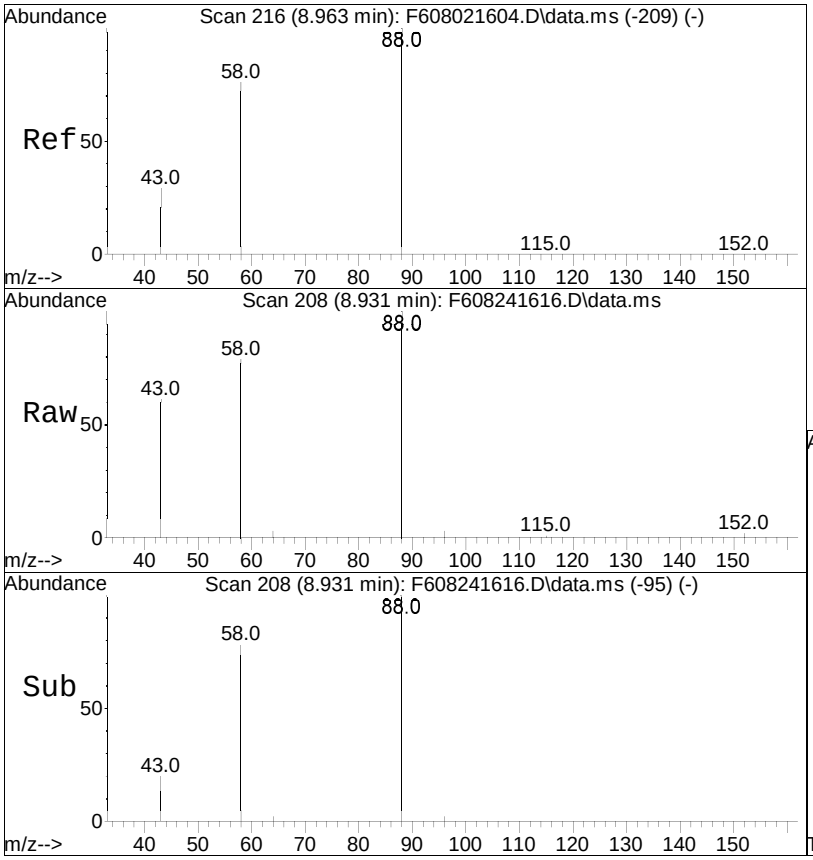
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241616.D
Acq On : 24 Aug 2016 10:27 pm
Operator : BNA6:WR
Sample : L1626118-07
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 25 12:13:15 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

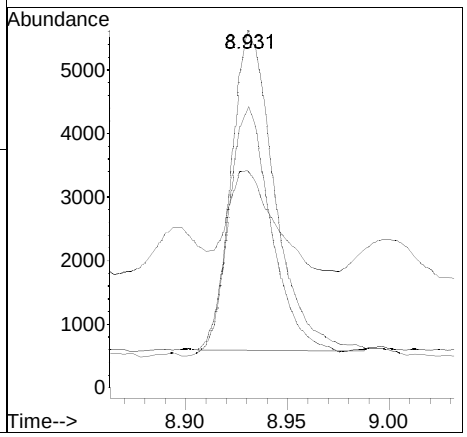




#2
1,4-dioxane
Concen: 139.62 ng/mL M4
RT: 8.931 min Scan# 208
Delta R.T. -0.041 min
Lab File: F608241616.D
Acq: 24 Aug 2016 10:27 pm

Tgt Ion: 88 Resp: 7434

Ion	Ratio	Lower	Upper
88	100		
58	78.0	62.1	93.1
43	36.3	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241617.D
Acq On : 24 Aug 2016 11:10 pm
Operator : BNA6:WR
Sample : L1626118-08
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 25 08:36:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.857	64	15993	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	165157	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.857	64	15993	111.887	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 22.38%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.935	88	10851	236.724	ng/mL	98

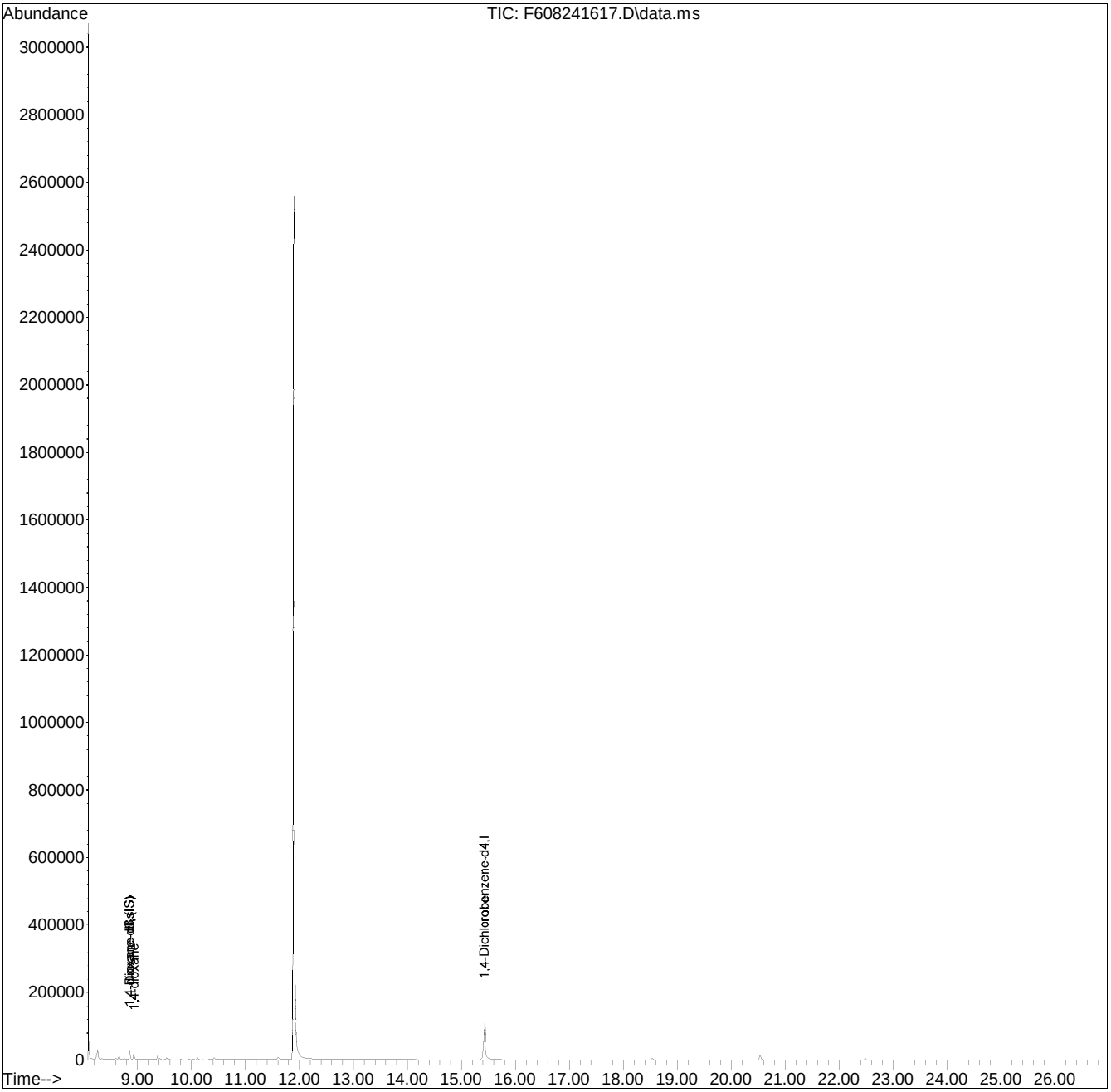
(#) = qualifier out of range (m) = manual integration (+) = signals summed

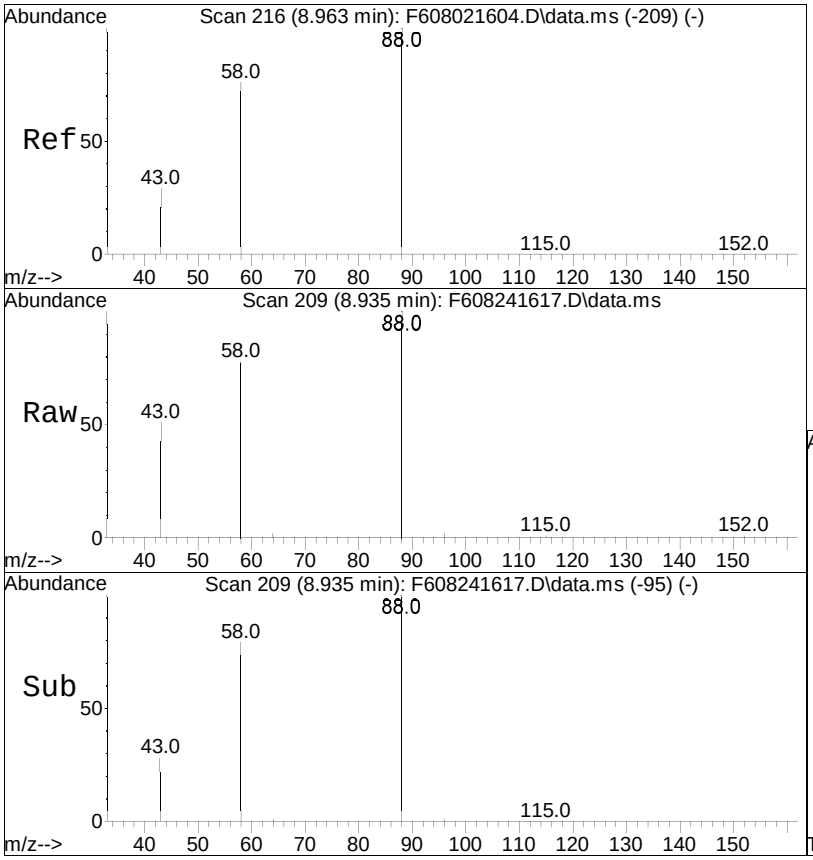
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241617.D
Acq On : 24 Aug 2016 11:10 pm
Operator : BNA6:WR
Sample : L1626118-08
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 25 08:36:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

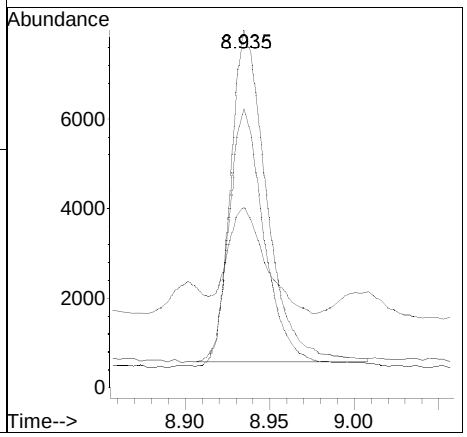




#2
1,4-dioxane
Concen: 236.72 ng/mL
RT: 8.935 min Scan# 209
Delta R.T. -0.037 min
Lab File: F608241617.D
Acq: 24 Aug 2016 11:10 pm

Tgt Ion: 88 Resp: 10851

Ion	Ratio	Lower	Upper
88	100		
58	77.2	62.1	93.1
43	33.8	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241618.D
Acq On : 24 Aug 2016 11:54 pm
Operator : BNA6:WR
Sample : L1626118-09
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 25 12:55:04 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

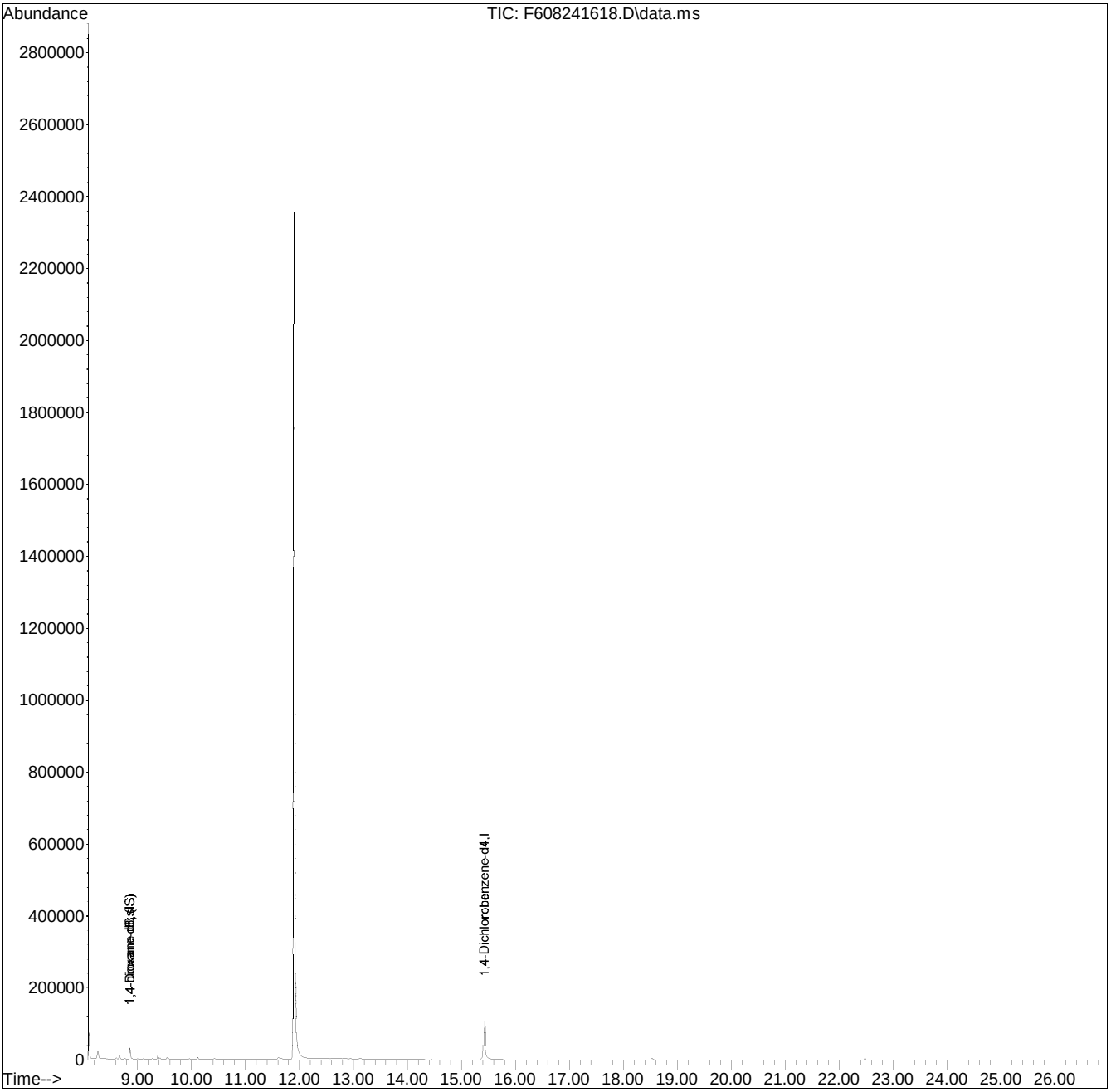
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.866	64	17524	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	159529	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.866	64	17524	126.924	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.38%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241618.D
Acq On : 24 Aug 2016 11:54 pm
Operator : BNA6:WR
Sample : L1626118-09
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 25 12:55:04 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241619.D
Acq On : 25 Aug 2016 12:38 am
Operator : BNA6:WR
Sample : L1626118-10
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 25 12:55:27 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.857	64	16737	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	159108	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.857	64	16737	121.544	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.31%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

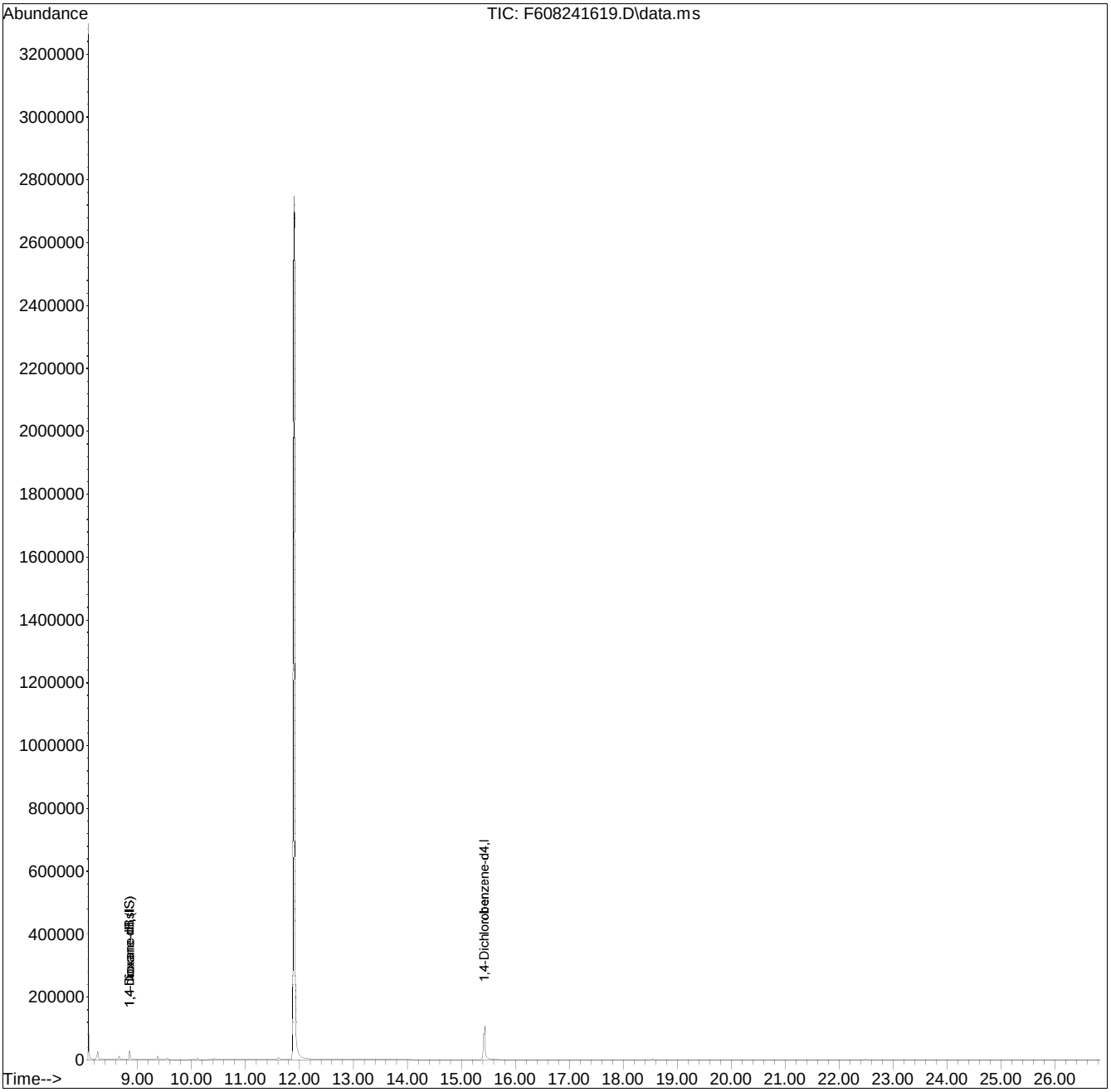
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241619.D
Acq On : 25 Aug 2016 12:38 am
Operator : BNA6:WR
Sample : L1626118-10
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 25 12:55:27 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241620.D
Acq On : 25 Aug 2016 1:22 am
Operator : BNA6:WR
Sample : L1626118-11
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 25 12:55:58 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.857	64	17021	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	161540	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.857	64	17021	121.746	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.35%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.939	88	1561M4	31.998	ng/mL	

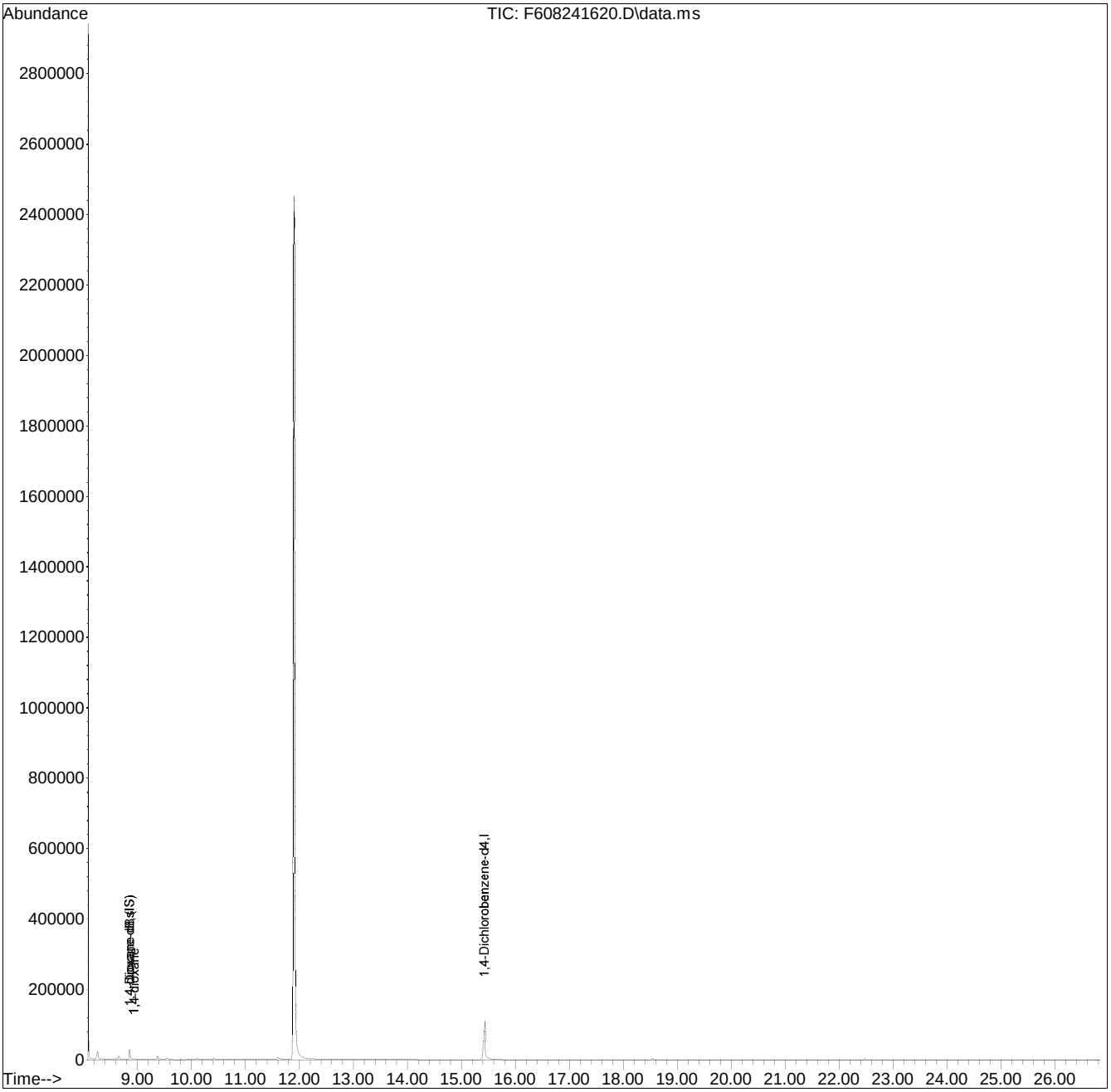
(#) = qualifier out of range (m) = manual integration (+) = signals summed

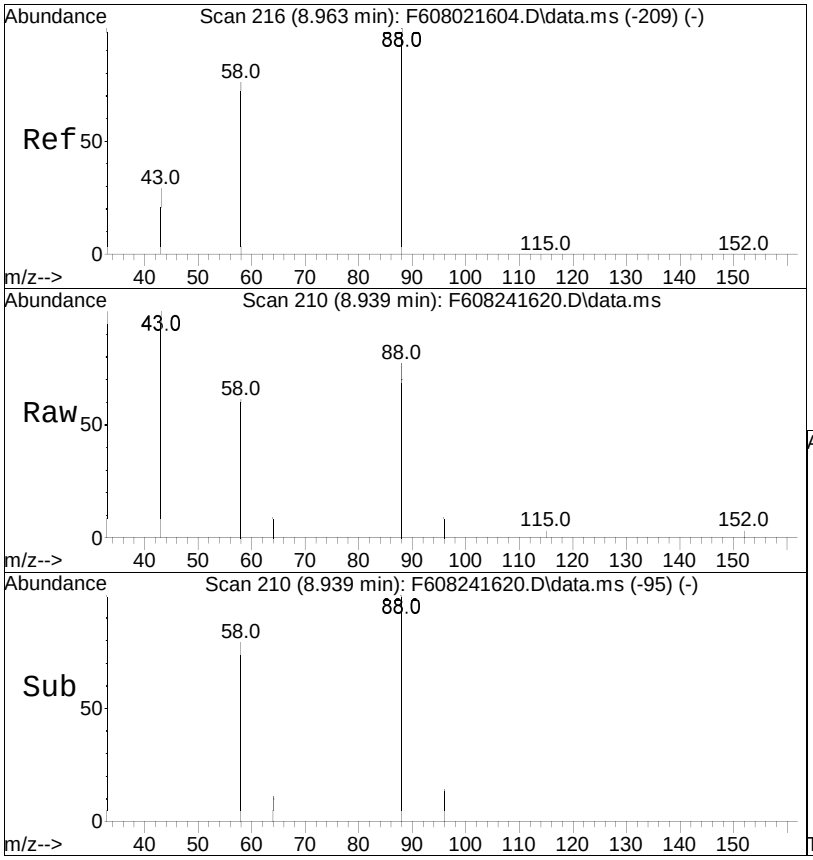
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241620.D
Acq On : 25 Aug 2016 1:22 am
Operator : BNA6:WR
Sample : L1626118-11
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 25 12:55:58 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

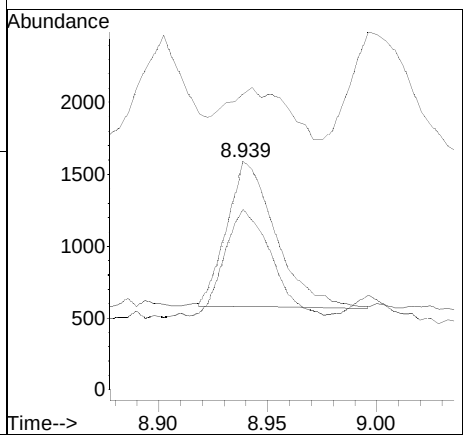




#2
1,4-dioxane
Concen: 32.00 ng/mL M4
RT: 8.939 min Scan# 210
Delta R.T. -0.032 min
Lab File: F608241620.D
Acq: 25 Aug 2016 1:22 am

Tgt Ion: 88 Resp: 1561

Ion	Ratio	Lower	Upper
88	100		
58	73.4	62.1	93.1
43	12.5	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241621.D
Acq On : 25 Aug 2016 2:06 am
Operator : BNA6:WR
Sample : L1626118-12
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 25 12:56:33 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.861	64	15863	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	153951	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.861	64	15863	119.056	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.81%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

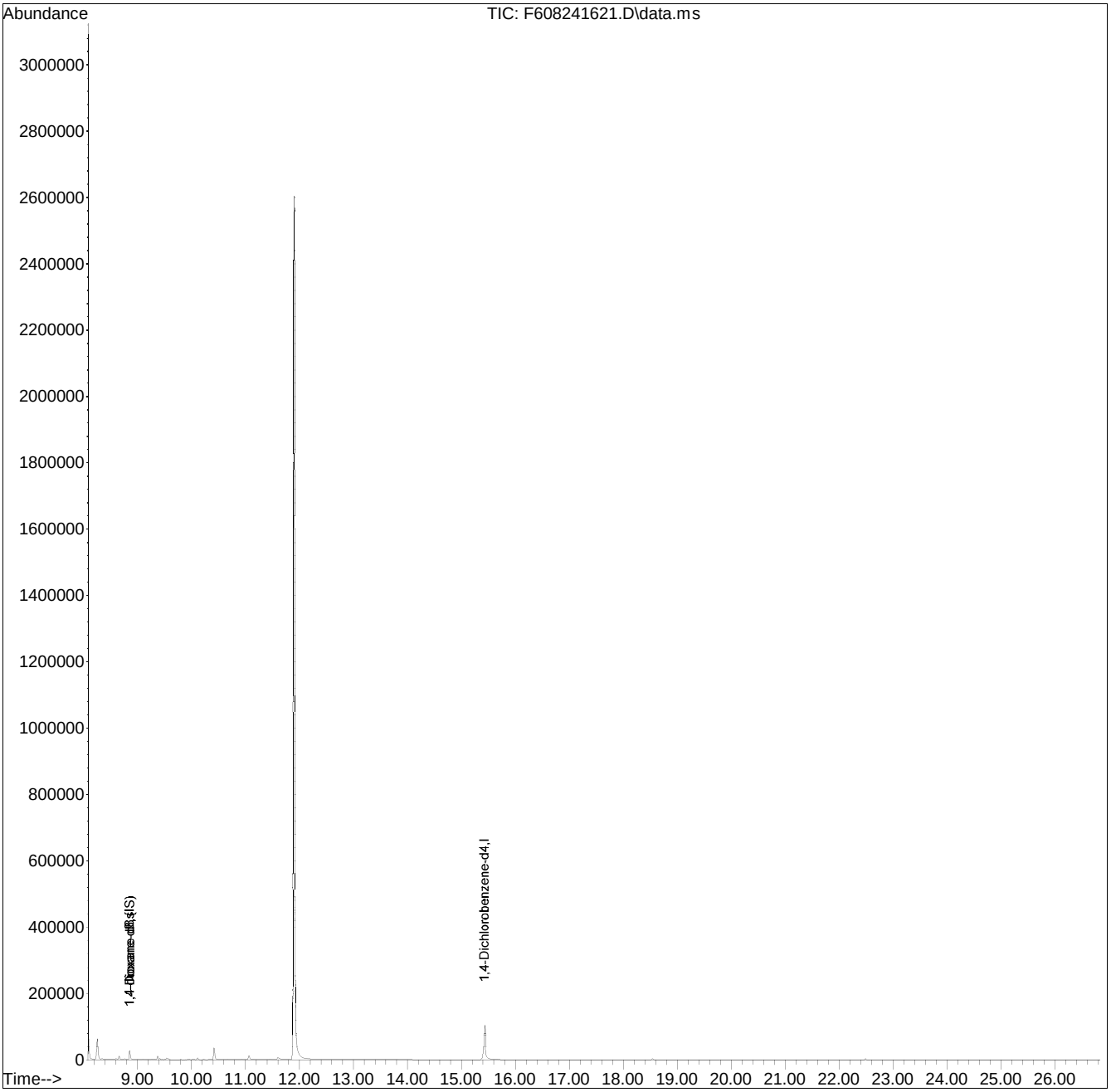
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241621.D
Acq On : 25 Aug 2016 2:06 am
Operator : BNA6:WR
Sample : L1626118-12
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 25 12:56:33 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241622.D
Acq On : 25 Aug 2016 2:50 am
Operator : BNA6:WR
Sample : L1626118-13
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 25 12:56:58 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.865	64	15170	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.426	152	148853	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.865	64	15170	117.754	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.55%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

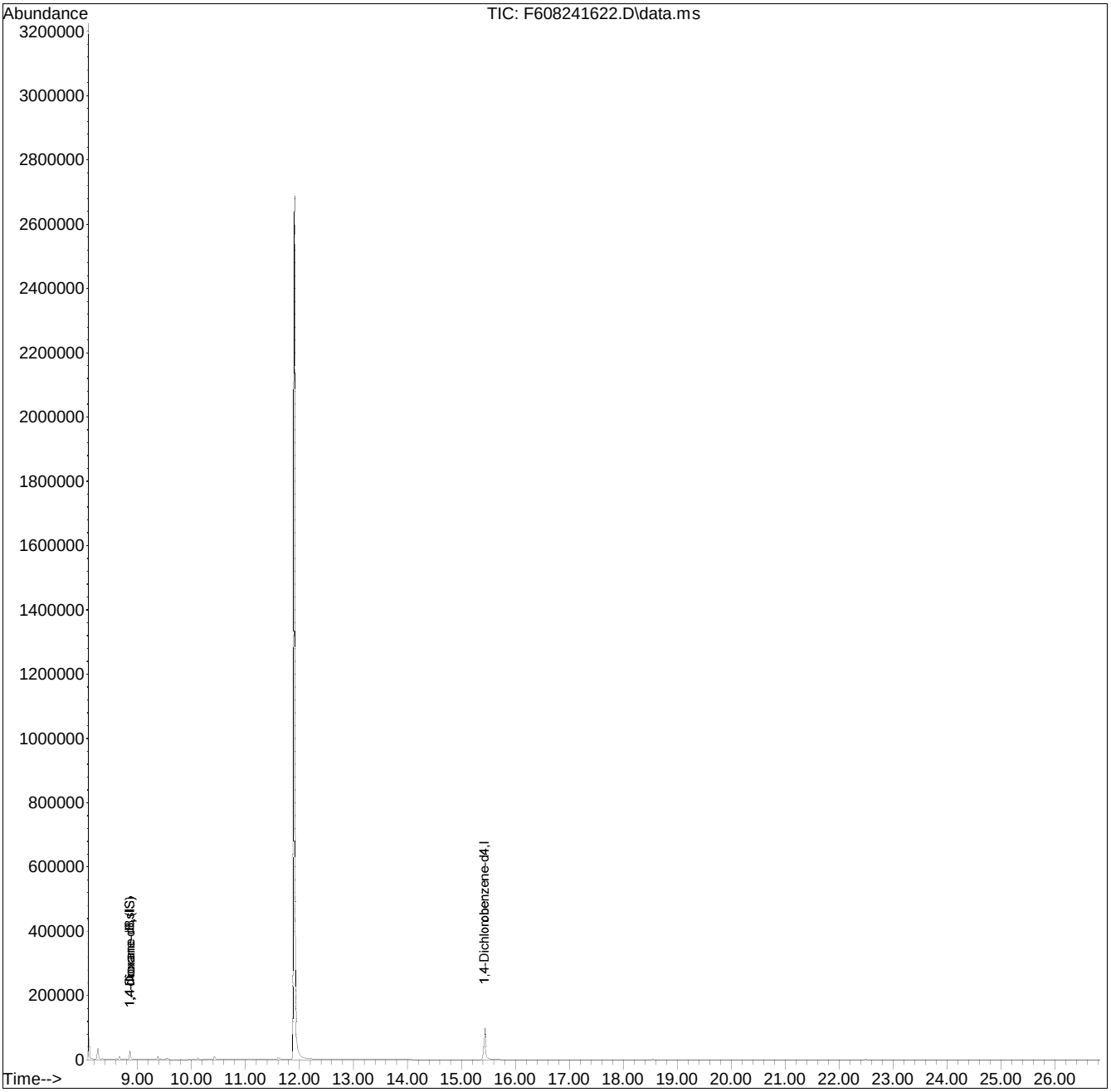
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241622.D
Acq On : 25 Aug 2016 2:50 am
Operator : BNA6:WR
Sample : L1626118-13
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 25 12:56:58 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241623.D
Acq On : 25 Aug 2016 3:34 am
Operator : BNA6:WR
Sample : L1626118-14
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 25 12:57:31 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

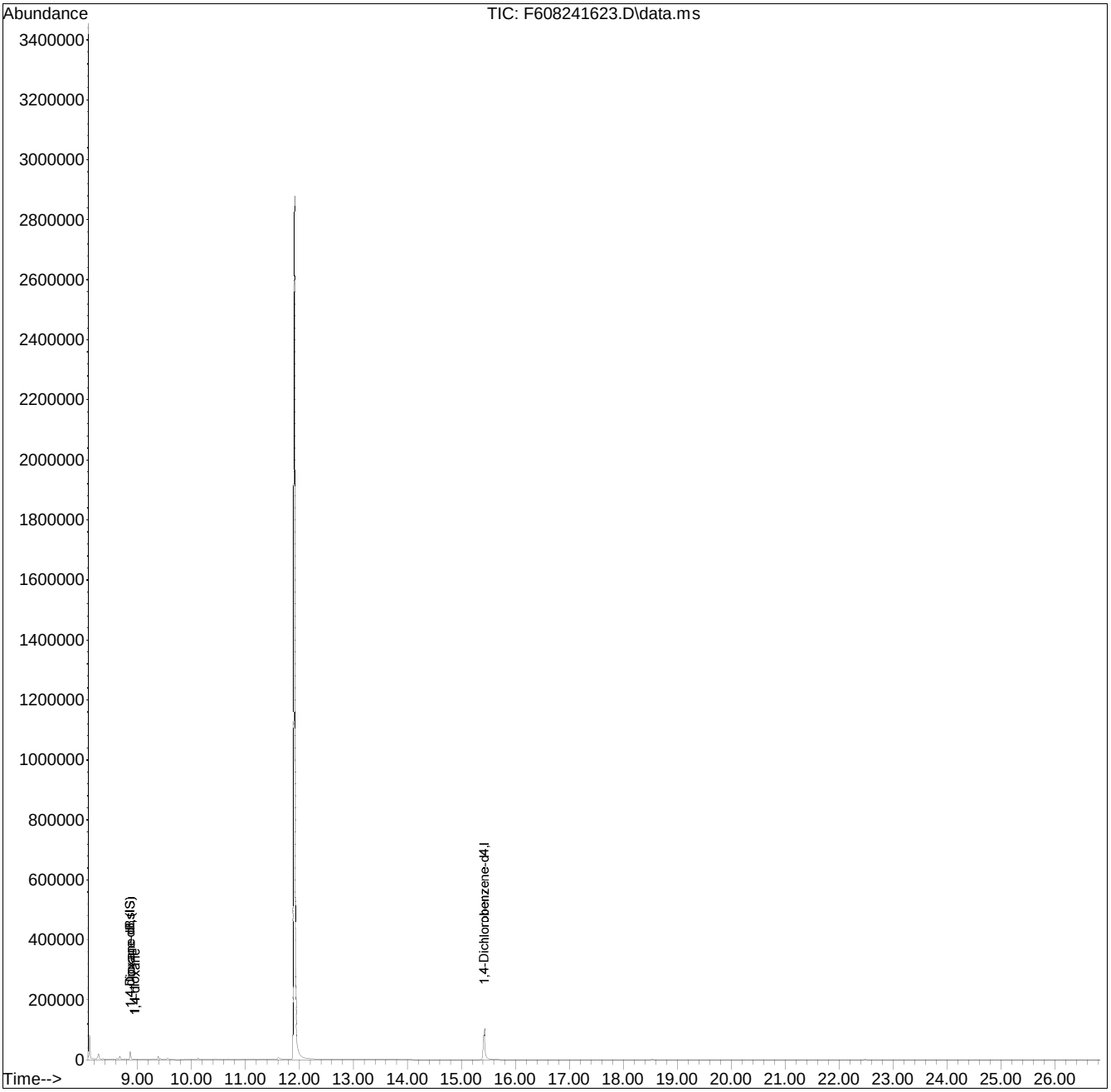
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.870	64	15935	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.418	152	153703	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.870	64	15935	119.789	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.96%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.959	88	280M4	6.131	ng/mL	

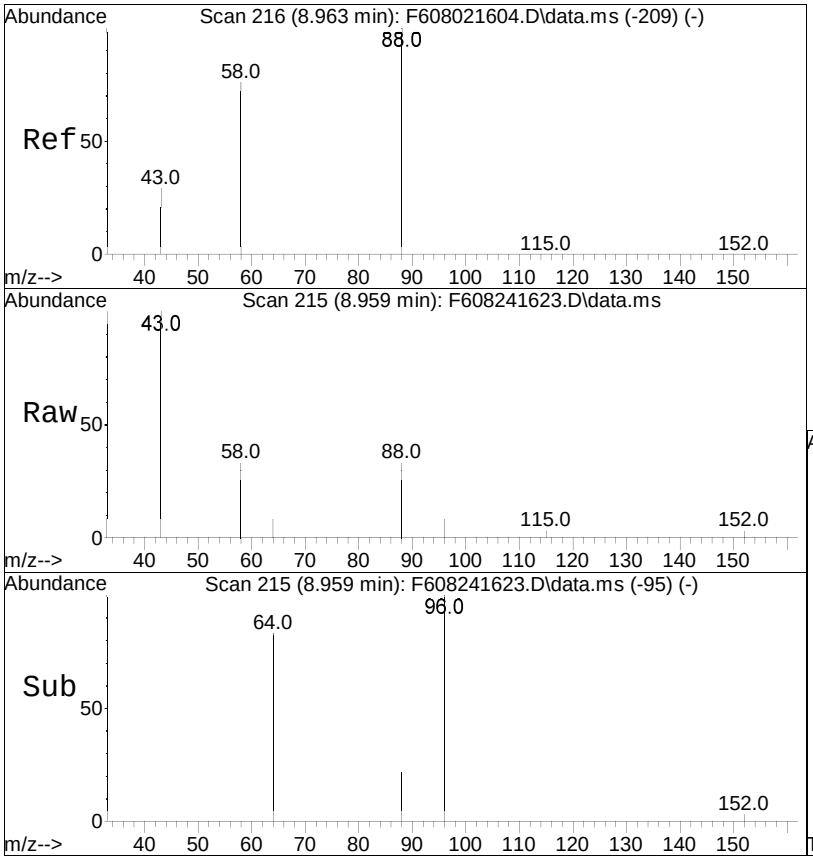
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241623.D
Acq On : 25 Aug 2016 3:34 am
Operator : BNA6:WR
Sample : L1626118-14
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Aug 25 12:57:31 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

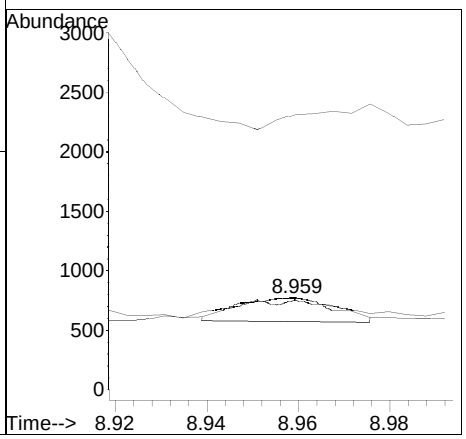




#2
1,4-dioxane
Concen: 6.13 ng/mL M4
RT: 8.959 min Scan# 215
Delta R.T. -0.012 min
Lab File: F608241623.D
Acq: 25 Aug 2016 3:34 am

Tgt Ion: 88 Resp: 280

Ion	Ratio	Lower	Upper
88	100		
58	0.0	62.1	93.1#
43	0.0	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241624.D
Acq On : 25 Aug 2016 4:17 am
Operator : BNA6:WR
Sample : L1626118-15
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Aug 25 12:57:57 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.861	64	18256	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	153102	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.861	64	18256	137.776	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 27.56%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

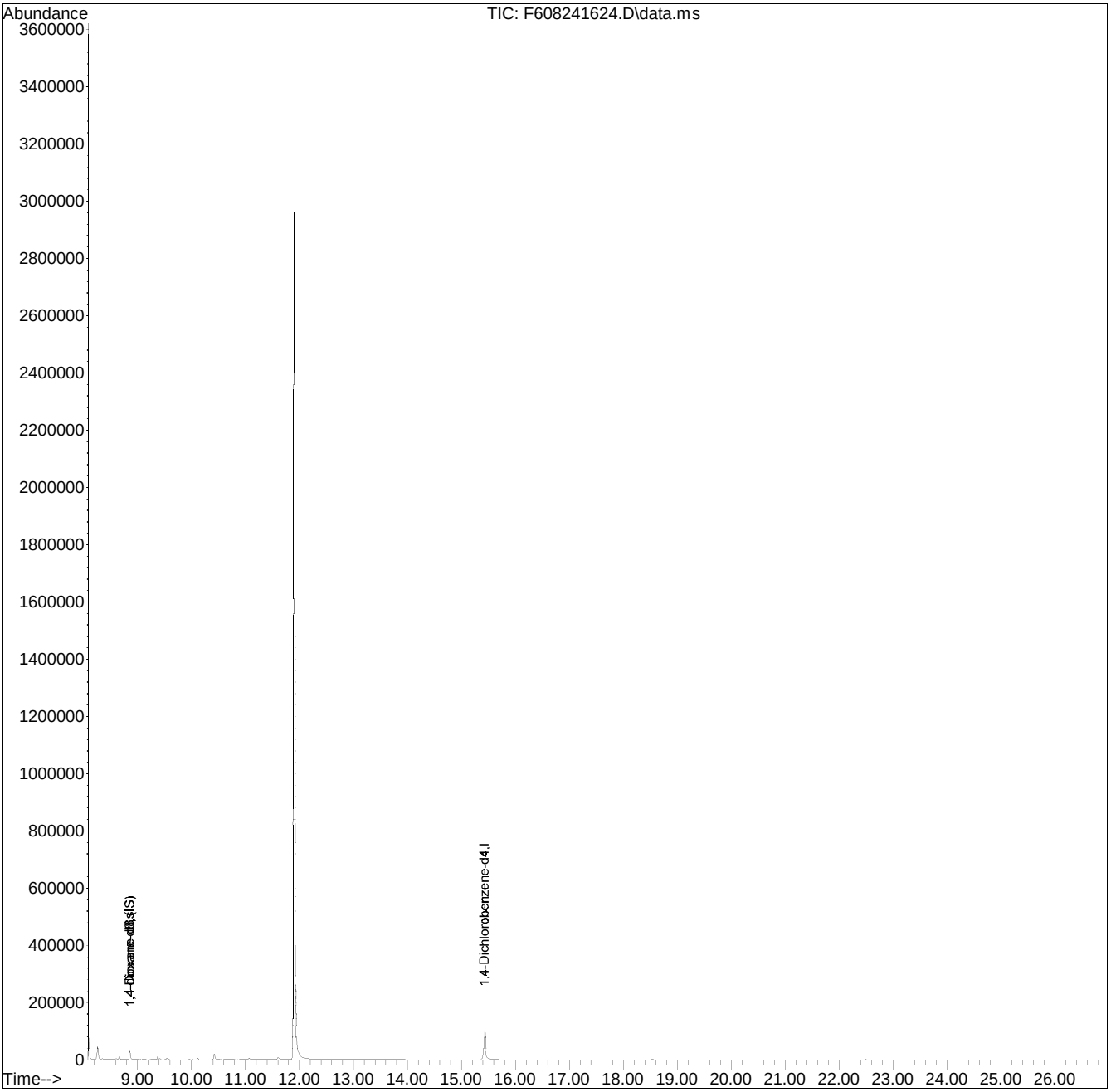
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241624.D
Acq On : 25 Aug 2016 4:17 am
Operator : BNA6:WR
Sample : L1626118-15
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Aug 25 12:57:57 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241625.D
Acq On : 25 Aug 2016 5:01 am
Operator : BNA6:WR
Sample : L1626118-16
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Aug 25 12:58:49 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.862	64	15449	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	150042	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.862	64	15449	118.970	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.79%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

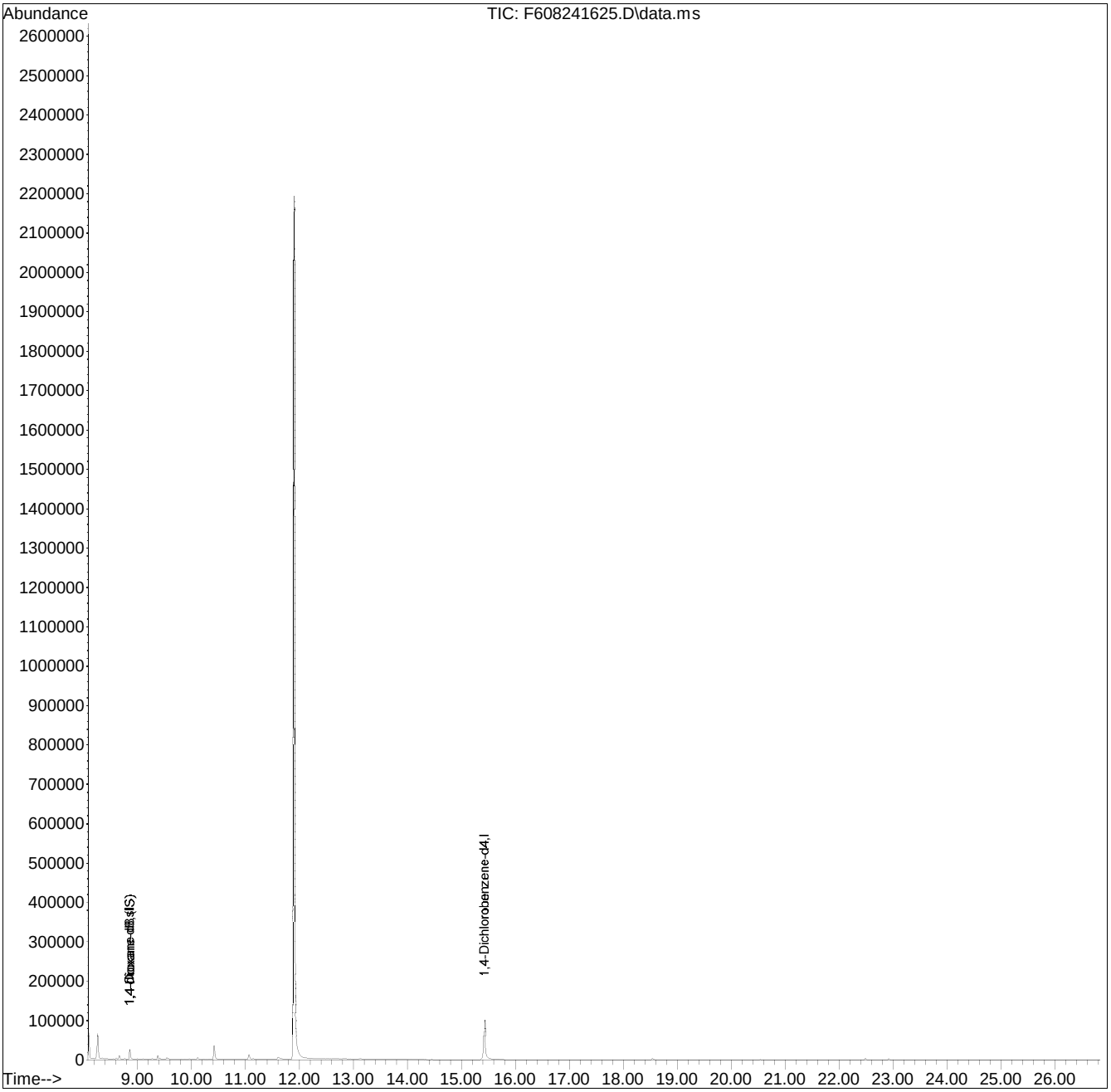
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241625.D
Acq On : 25 Aug 2016 5:01 am
Operator : BNA6:WR
Sample : L1626118-16
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Aug 25 12:58:49 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241626.D
Acq On : 25 Aug 2016 5:45 am
Operator : BNA6:WR
Sample : L1626118-17
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Aug 25 12:59:16 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.849	64	15034	500.000	ng/mL	-0.05
3) 1,4-Dichlorobenzene-d4	15.422	152	148438	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.849	64	15034	117.025	ng/mL	-0.05
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.41%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

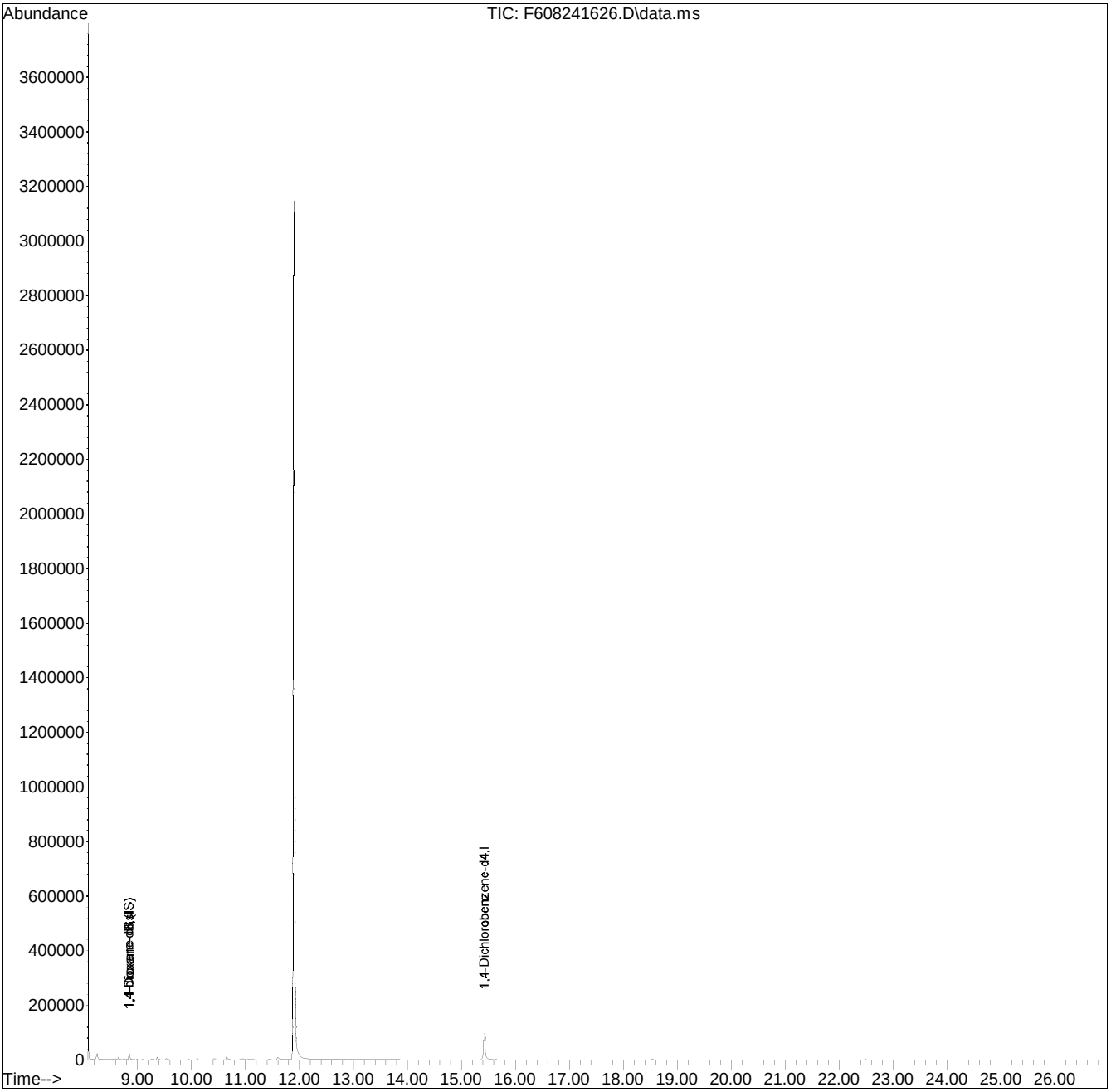
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241626.D
Acq On : 25 Aug 2016 5:45 am
Operator : BNA6:WR
Sample : L1626118-17
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Aug 25 12:59:16 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Batch Quality Control

Method Blank
Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241603.D
Acq On : 24 Aug 2016 12:40 pm
Operator : BNA6:WR
Sample : WG925191-1
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 25 12:05:58 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.845	64	20977	500.000	ng/mL	-0.05
3) 1,4-Dichlorobenzene-d4	15.413	152	159518	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.845	64	20977	151.944	ng/mL	-0.05
Spiked Amount 500.000	Range 15 - 115		Recovery = 30.39%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

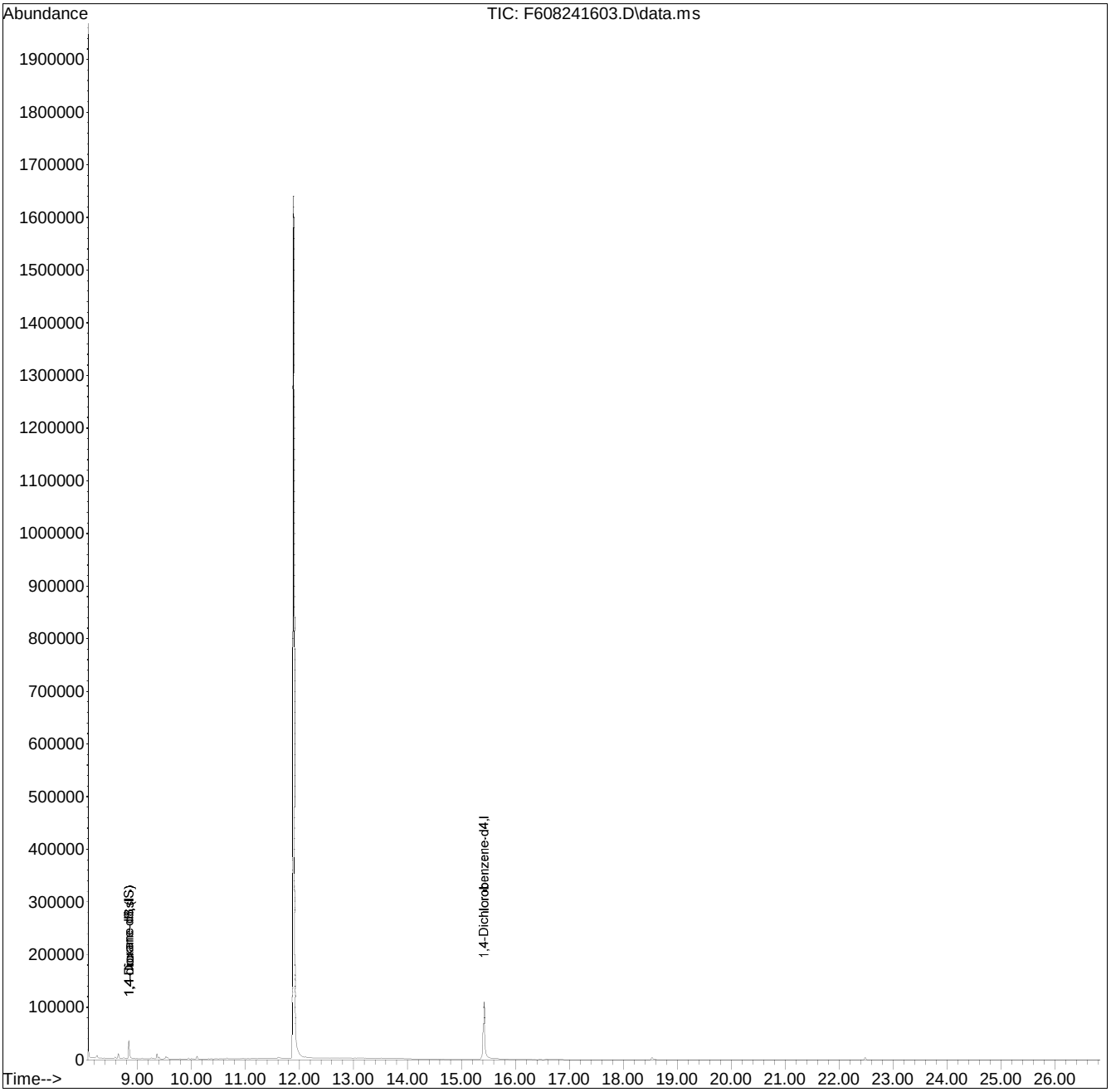
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241603.D
Acq On : 24 Aug 2016 12:40 pm
Operator : BNA6:WR
Sample : WG925191-1
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 25 12:05:58 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241604.D
Acq On : 24 Aug 2016 1:24 pm
Operator : BNA6:WR
Sample : WG925191-2
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 25 08:36:20 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.878	64	17171	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.426	152	164625	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.878	64	17171	120.517	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.10%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	27179	552.256	ng/mL	98

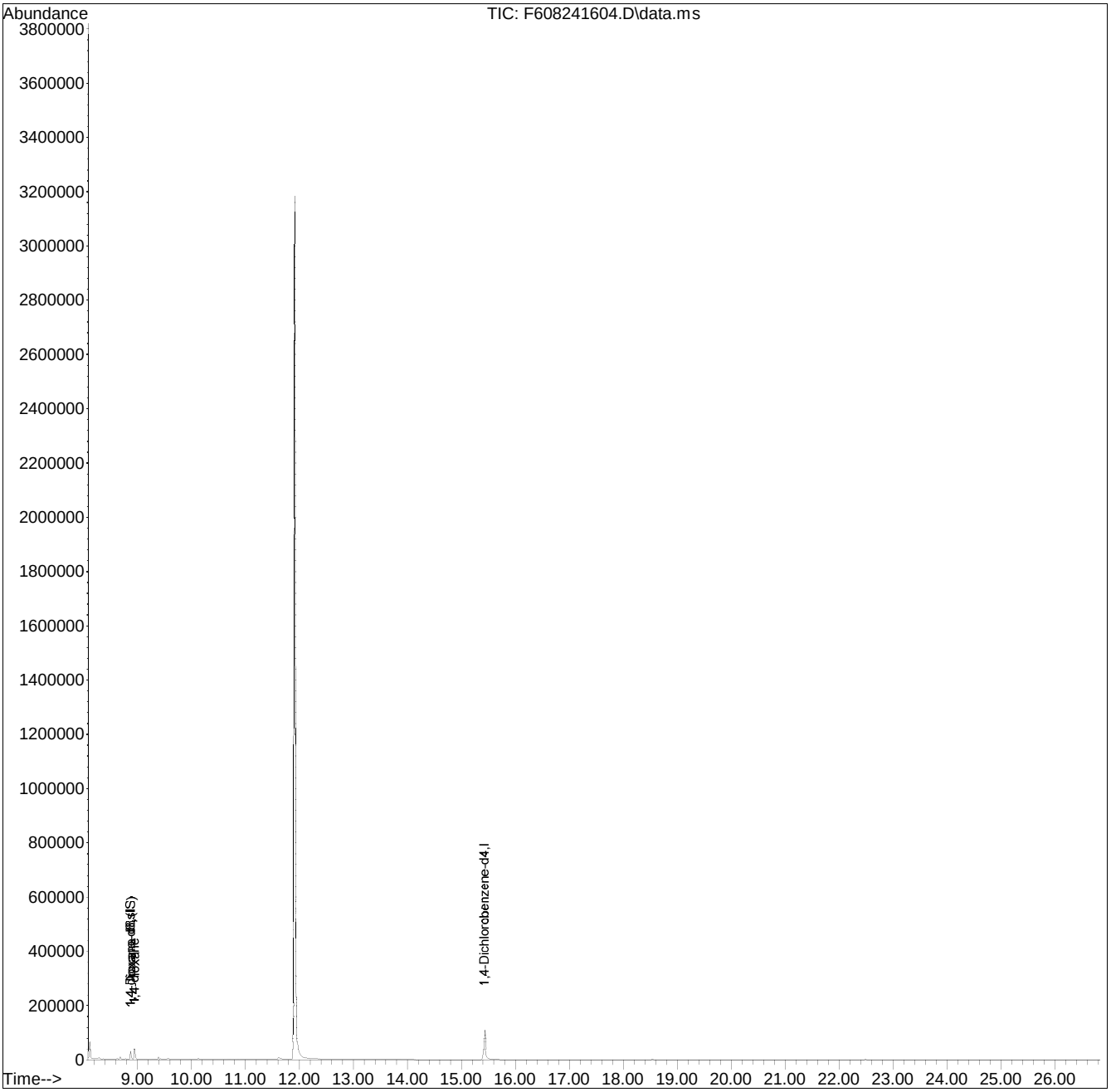
(#) = qualifier out of range (m) = manual integration (+) = signals summed

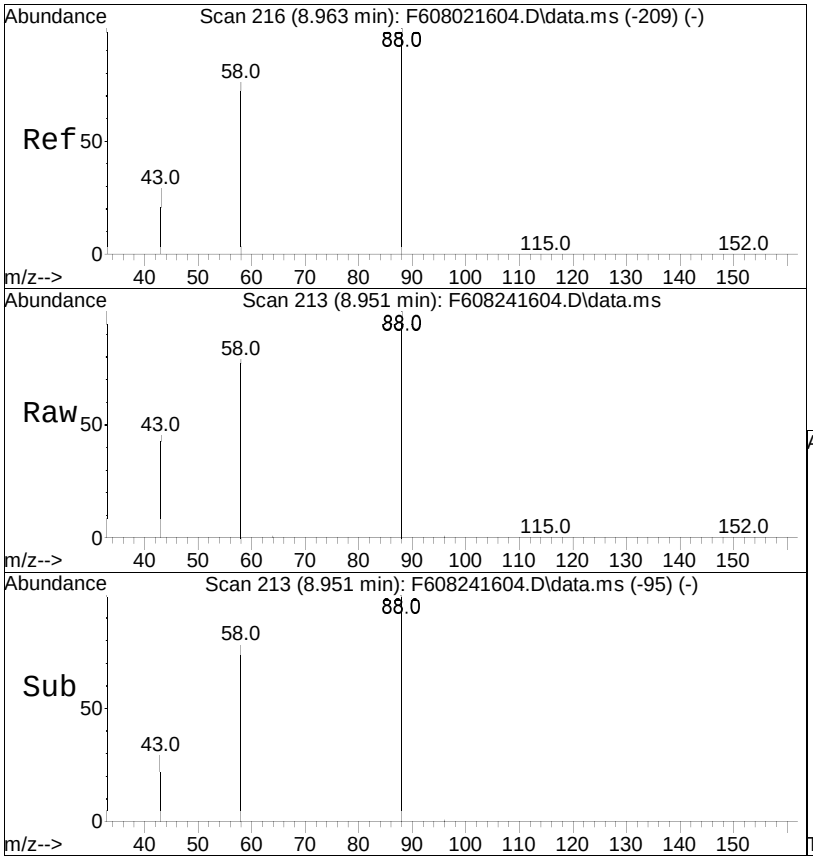
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241604.D
Acq On : 24 Aug 2016 1:24 pm
Operator : BNA6:WR
Sample : WG925191-2
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 25 08:36:20 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

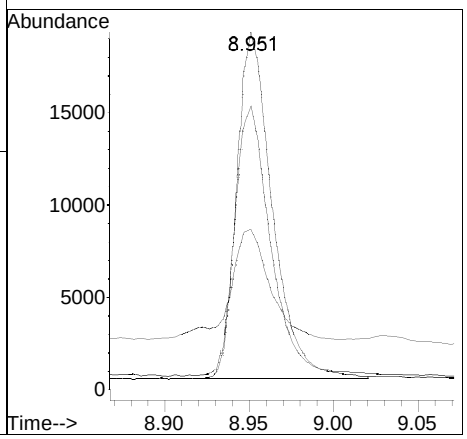




#2
1,4-dioxane
Concen: 552.26 ng/mL
RT: 8.951 min Scan# 213
Delta R.T. -0.020 min
Lab File: F608241604.D
Acq: 24 Aug 2016 1:24 pm

Tgt Ion: 88 Resp: 27179

Ion	Ratio	Lower	Upper
88	100		
58	77.6	62.1	93.1
43	35.0	24.4	36.6



LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241605.D
Acq On : 24 Aug 2016 2:09 pm
Operator : BNA6:WR
Sample : WG925191-3
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 25 12:07:37 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

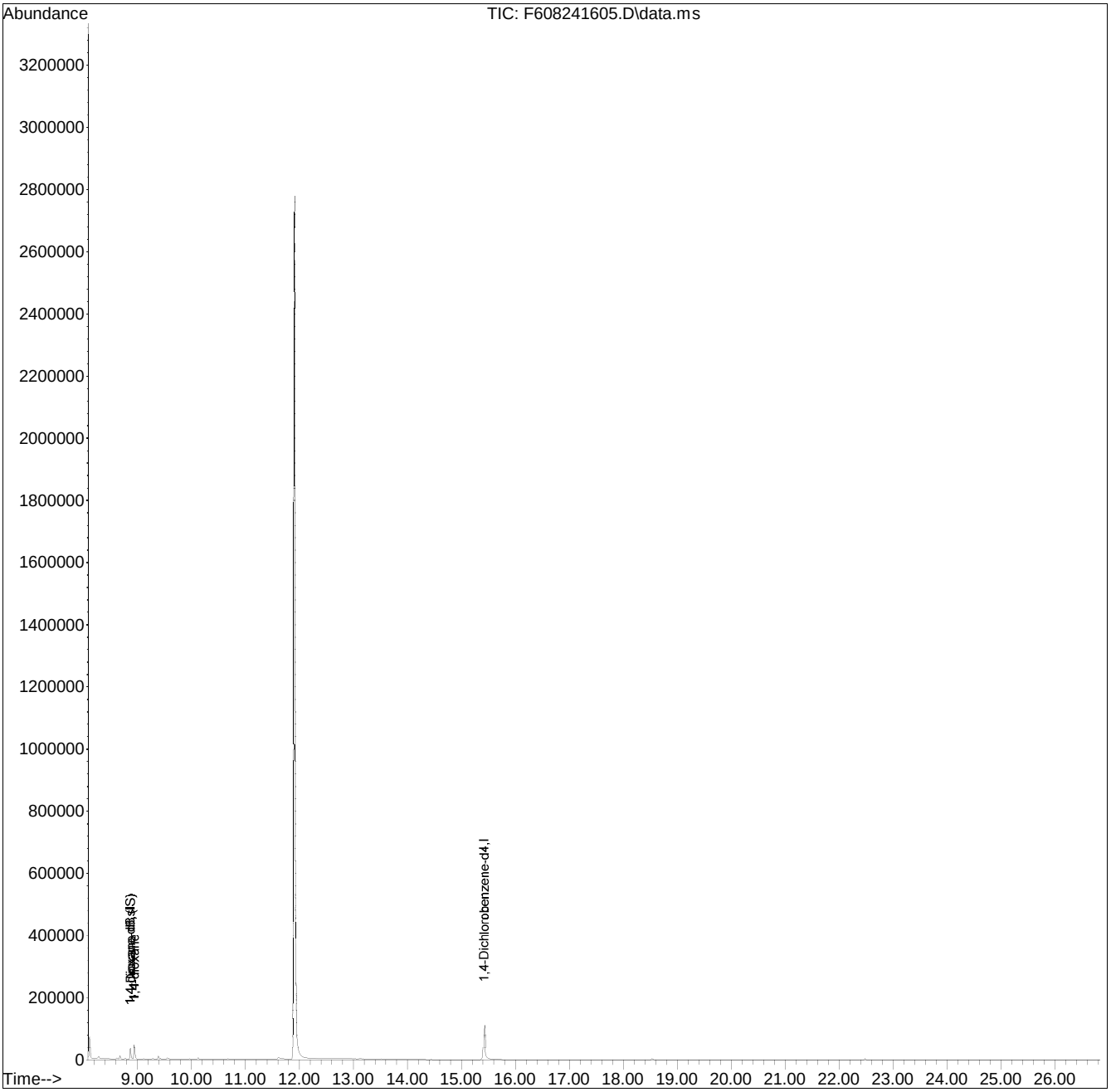
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.874	64	19956	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.418	152	161611M4	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.874	64	19956	142.676	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 28.54%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.947	88	31781	555.644	ng/mL	99

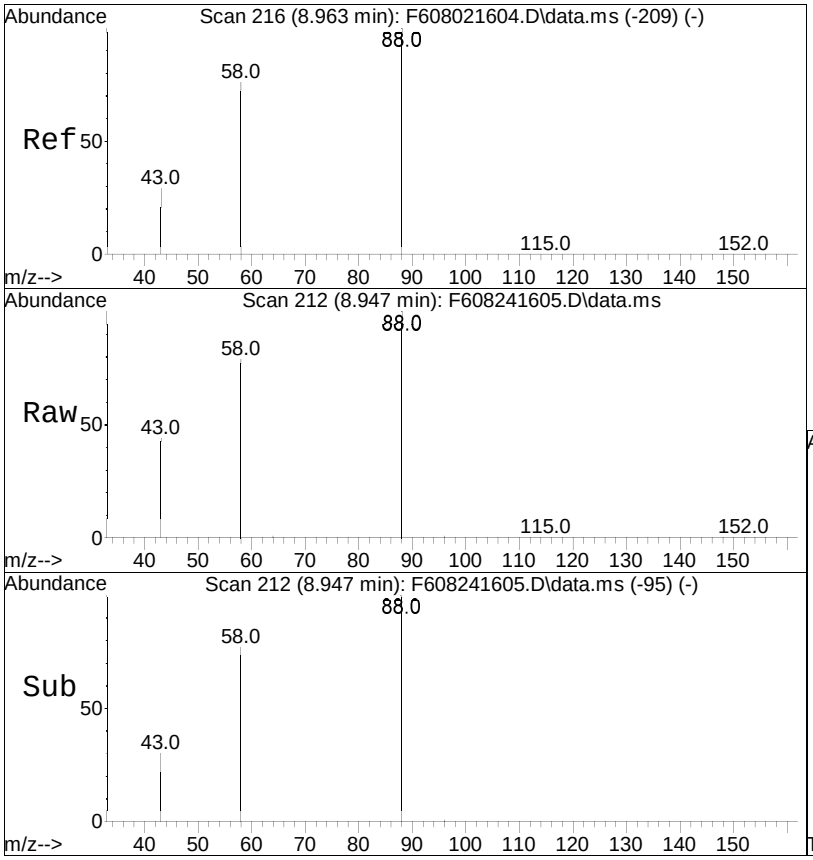
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241605.D
Acq On : 24 Aug 2016 2:09 pm
Operator : BNA6:WR
Sample : WG925191-3
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 25 12:07:37 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

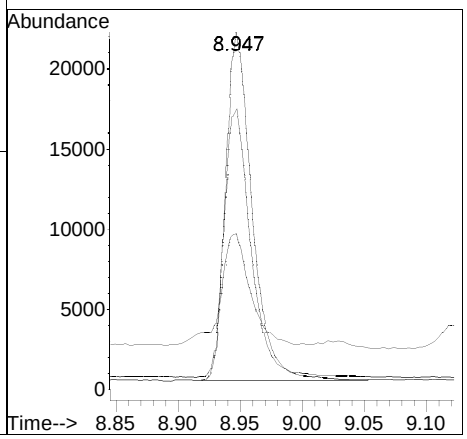




#2
1,4-dioxane
Concen: 555.64 ng/mL
RT: 8.947 min Scan# 212
Delta R.T. -0.024 min
Lab File: F608241605.D
Acq: 24 Aug 2016 2:09 pm

Tgt Ion: 88 Resp: 31781

Ion	Ratio	Lower	Upper
88	100		
58	78.0	62.1	93.1
43	32.7	24.4	36.6



Matrix Spike / Matrix Spike Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241610.D
Acq On : 24 Aug 2016 5:53 pm
Operator : BNA6:WR
Sample : WG925191-4
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 25 12:11:04 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.861	64	16769M4	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	152430	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.861	64	16763M4	127.066	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.41%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.935	88	40355	839.640	ng/mL	97

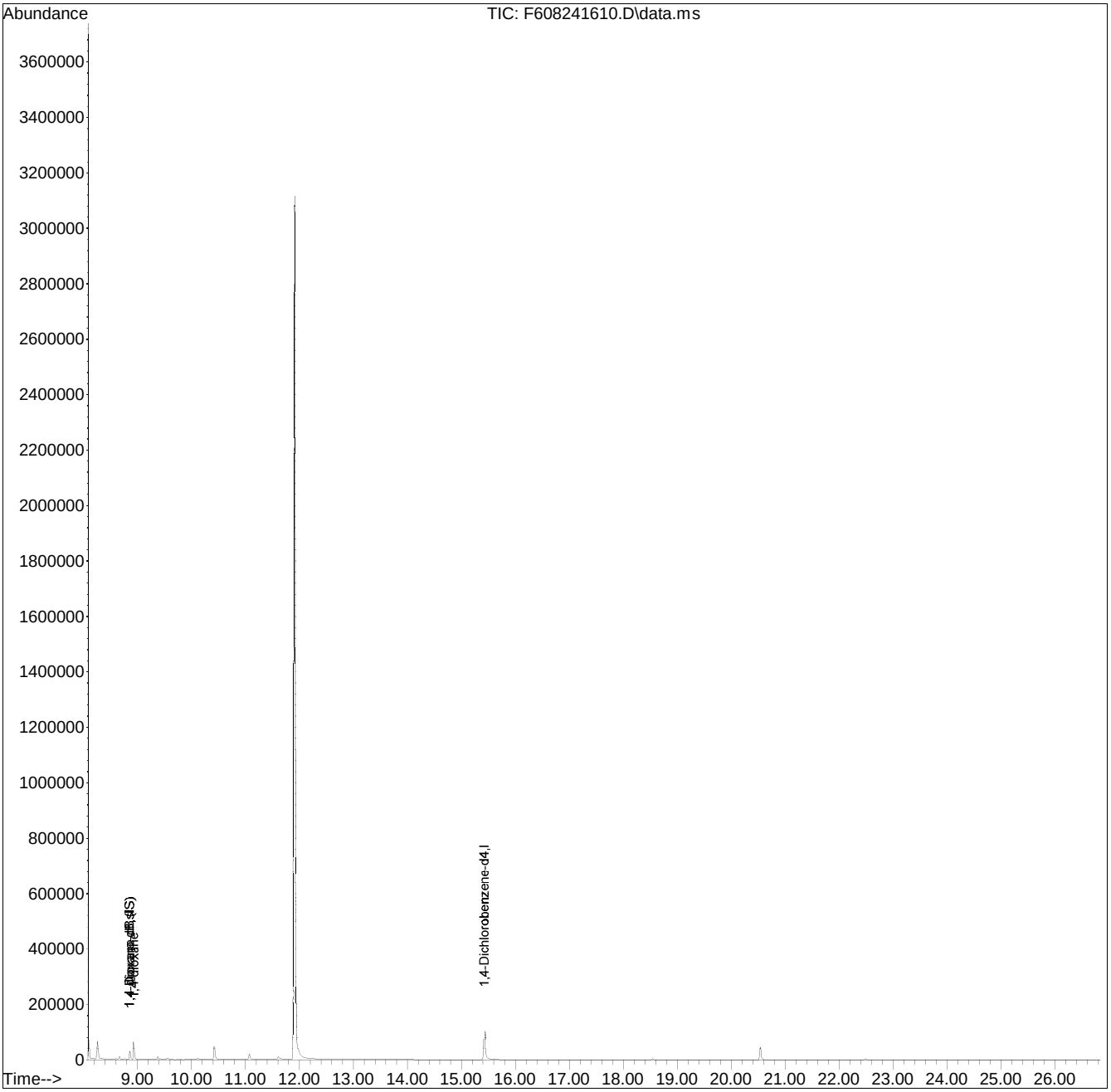
(#) = qualifier out of range (m) = manual integration (+) = signals summed

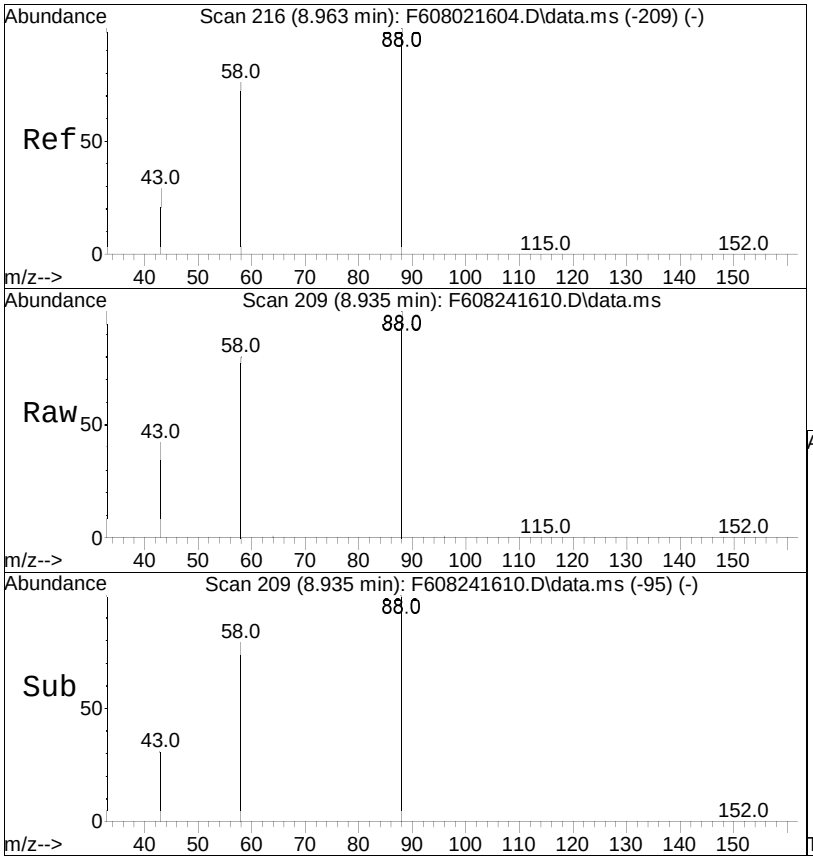
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241610.D
Acq On : 24 Aug 2016 5:53 pm
Operator : BNA6:WR
Sample : WG925191-4
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 25 12:11:04 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

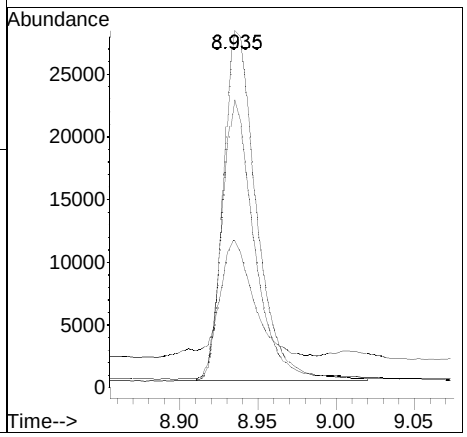




#2
1,4-dioxane
Concen: 839.64 ng/mL
RT: 8.935 min Scan# 209
Delta R.T. -0.037 min
Lab File: F608241610.D
Acq: 24 Aug 2016 5:53 pm

Tgt Ion: 88 Resp: 40355

Ion	Ratio	Lower	Upper
88	100		
58	78.7	62.1	93.1
43	34.4	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241611.D
Acq On : 24 Aug 2016 6:38 pm
Operator : BNA6:WR
Sample : WG925191-5
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 25 08:36:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.857	64	15128	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	148388	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.857	64	15128	117.796	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.56%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.931	88	36638	844.993	ng/mL	98

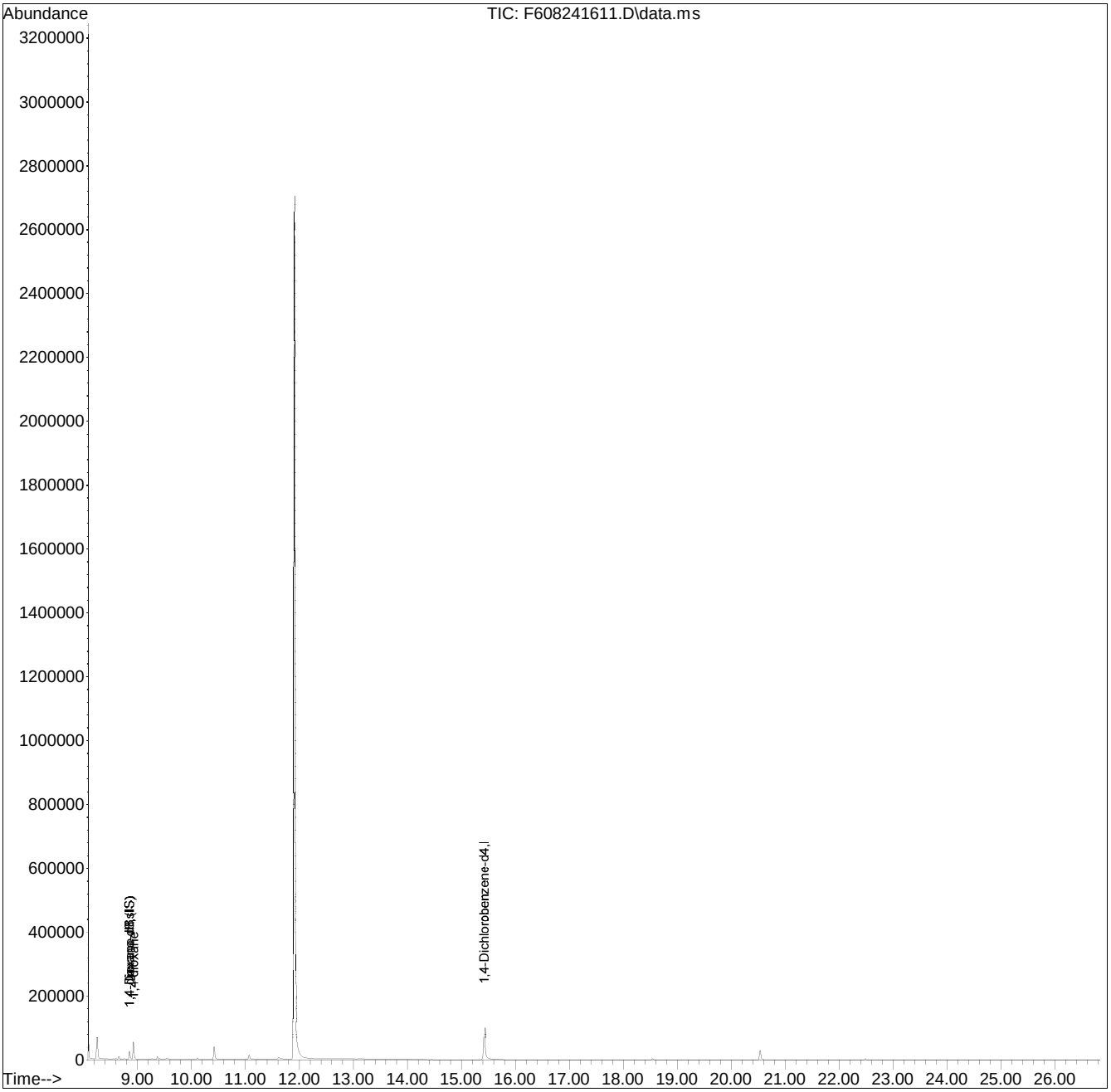
(#) = qualifier out of range (m) = manual integration (+) = signals summed

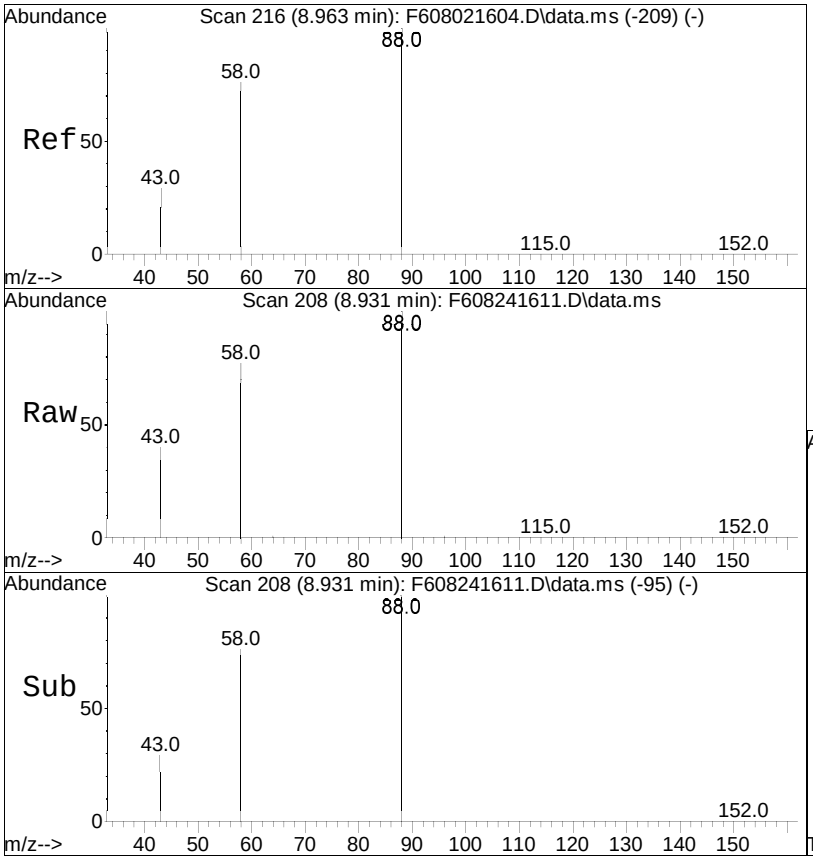
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug24\
Data File : F608241611.D
Acq On : 24 Aug 2016 6:38 pm
Operator : BNA6:WR
Sample : WG925191-5
Misc : WG925553,WG925191,ICAL12751
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 25 08:36:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug24\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

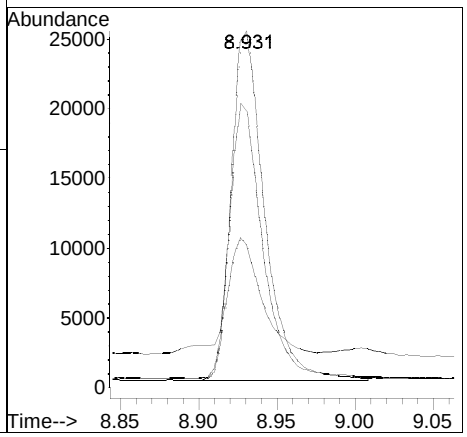




#2
1,4-dioxane
Concen: 844.99 ng/mL
RT: 8.931 min Scan# 208
Delta R.T. -0.041 min
Lab File: F608241611.D
Acq: 24 Aug 2016 6:38 pm

Tgt Ion: 88 Resp: 36638

Ion	Ratio	Lower	Upper
88	100		
58	78.1	62.1	93.1
43	34.0	24.4	36.6



Sample Preparation

ORGANIC ELN REPORT

Workgroup: WG925191

Prep Method: EPA 3510C
Solvent Type: DCM **Lot #:** DP875
Surrogate Type: 1,4-DIOXANE **Lot #:** MSAK13
Spike Type: 1,4-DIOXANE **Lot #:** MSAK04
Spike Verify by: ABS
Lims Spikelot: 14DIOXANE

Additional Reagents/Stds

Na2SO4	0000131774
Glass Wool	11414001

Conc.Method: S-EVAP
Solvent Type: DCM
Lot #: DP875

Additional Reagents/Stds

Cleanup 1

Cleanup Method 1:
Cleanup Method 2:
Solvent Type: **Lot #:**

Additional Reagents/Stds

Sample/ Type	Extraction: Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Concentration: Conc Date	Analyst	Final Vol ml	Conc Unit
WG925191-1 BLANK	08/23/16 15:00	Daniel Robbins	500	7	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3
WG925191-2 LCS	08/23/16 15:00	Daniel Robbins	500	7	.5	.5	08/23/16 17:15	Daniel Robbins	5	SEVAP 3
WG925191-3 LCSD	08/23/16 15:00	Daniel Robbins	500	7	.5	.5	08/23/16 17:15	Daniel Robbins	5	SEVAP 3
WG925191-4 MS	08/23/16 15:00	Daniel Robbins	480	8	.5	.5	08/23/16 17:15	Daniel Robbins	5	SEVAP 3
WG925191-5 MSD	08/23/16 15:00	Daniel Robbins	490	8	.5	.5	08/23/16 17:15	Daniel Robbins	5	SEVAP 3
L1626118-01 WATER	08/23/16 15:00	Daniel Robbins	510	7	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3
L1626118-02 WATER	08/23/16 15:00	Daniel Robbins	470	8	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3

Reported: 20-SEP-16 04:11 PM

ORGANIC ELN REPORT

Workgroup: WG925191

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol **ml**	Ph	Surr Amt **ml**	Spike Amt **ml**	Conc Date	Analyst	Final Vol **ml**	Conc Unit
L1626118-03 WATER	08/23/16 15:00	Daniel Robbins	510	8	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3
L1626118-04 WATER	08/23/16 15:00	Daniel Robbins	510	8	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3
L1626118-05 WATER	08/23/16 15:00	Daniel Robbins	460	7	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3
L1626118-06 WATER	08/23/16 15:00	Daniel Robbins	470	7	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3
L1626118-07 WATER	08/23/16 15:00	Daniel Robbins	500	7	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3
L1626118-08 WATER	08/23/16 15:00	Daniel Robbins	510	8	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3
L1626118-09 WATER	08/23/16 15:00	Daniel Robbins	500	8	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3
L1626118-10 WATER	08/23/16 15:00	Daniel Robbins	500	8	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3
L1626118-11 WATER	08/23/16 15:00	Daniel Robbins	470	8	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3
L1626118-12 WATER	08/23/16 15:00	Daniel Robbins	500	8	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3

Reported: 20-SEP-16 04:11 PM

ORGANIC ELN REPORT

Workgroup: WG925191

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol **ml**	Ph	Surr Amt **ml**	Spike Amt **ml**	Conc Date	Analyst	Final Vol **ml**	Conc Unit
L1626118-13 WATER	08/23/16 15:00	Daniel Robbins	510	8	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3
L1626118-14 WATER	08/23/16 15:00	Daniel Robbins	510	8	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3
L1626118-15 WATER	08/23/16 15:00	Daniel Robbins	500	8	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3
L1626118-16 WATER	08/23/16 15:00	Daniel Robbins	500	8	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3
L1626118-17 WATER	08/23/16 15:00	Daniel Robbins	500	8	.5		08/23/16 17:15	Daniel Robbins	5	SEVAP 3

Alpha Report

ANALYTICAL REPORT

Lab Number:	L1626118
Client:	Cornerstone Environmental Group, LLC 100 Crystal Run Road Suite 101 Middletown, NY 10941
ATTN:	Tim Roeper
Phone:	(845) 695-0200
Project Name:	FORD-RIDGEWOOD
Project Number:	140802-015
Report Date:	08/26/16

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: FORD-RIDGEWOOD
Project Number: 140802-015

Lab Number: L1626118
Report Date: 08/26/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1626118-01	SC-1-081916	WATER	RIDGEWOOD, NJ	08/19/16 11:35	08/19/16
L1626118-02	SW-11-081916	WATER	RIDGEWOOD, NJ	08/19/16 08:25	08/19/16
L1626118-03	SW-PAB-00-081916	WATER	RIDGEWOOD, NJ	08/19/16 07:55	08/19/16
L1626118-04	SR3-POND-081916	WATER	RIDGEWOOD, NJ	08/19/16 10:35	08/19/16
L1626118-05	SR3-SEEP-1-081916	WATER	RIDGEWOOD, NJ	08/19/16 11:40	08/19/16
L1626118-06	SR3-SEEP-2-081916	WATER	RIDGEWOOD, NJ	08/19/16 12:10	08/19/16
L1626118-07	SW-PAB-01-081916	WATER	RIDGEWOOD, NJ	08/19/16 13:15	08/19/16
L1626118-08	SW-PAB-01A-081916	WATER	RIDGEWOOD, NJ	08/19/16 13:40	08/19/16
L1626118-09	SW-MRB-00-081916	WATER	RIDGEWOOD, NJ	08/19/16 13:05	08/19/16
L1626118-10	SW-NOB-02-081916	WATER	RIDGEWOOD, NJ	08/19/16 10:25	08/19/16
L1626118-11	SW-PAB-04-081916	WATER	RIDGEWOOD, NJ	08/19/16 10:40	08/19/16
L1626118-12	SW-SP-01-081916	WATER	RIDGEWOOD, NJ	08/19/16 11:05	08/19/16
L1626118-13	SW-03-081916	WATER	RIDGEWOOD, NJ	08/19/16 12:40	08/19/16
L1626118-14	SW-04-081916	WATER	RIDGEWOOD, NJ	08/19/16 12:05	08/19/16
L1626118-15	SW-MRB-03-081916	WATER	RIDGEWOOD, NJ	08/19/16 13:40	08/19/16
L1626118-16	SW-MRB-02-081916	WATER	RIDGEWOOD, NJ	08/19/16 13:55	08/19/16
L1626118-17	FB-03-081916	WATER	RIDGEWOOD, NJ	08/19/16 14:30	08/19/16

Project Name: FORD-RIDGEWOOD
Project Number: 140802-015

Lab Number: L1626118
Report Date: 08/26/16

NJ DEP Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	YES
1a	Were the method specified handling, preservation, and holding time requirements met?	YES
1b	EPH Method: Was the EPH Method conducted without significant modifications (see Section 11.3 of respective DKQ methods)?	N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	YES
3	Were all samples received at an appropriate temperature (4 ± 2° C)?	YES
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	YES
5a	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	NO
5b	Were these reporting limits met?	N/A
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	NO
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	NO

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1a or #1b is "No", the data package does not meet the requirements for "Data of Known Quality".

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626118
Project Number: 140802-015 **Report Date:** 08/26/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626118
Project Number: 140802-015 **Report Date:** 08/26/16

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

DKQP Related Narratives

Report Submission

In reference to question 5a:

Reporting limits were not specified.

In reference to question 6:

At the client's request, all submitted samples were not analyzed for the full DKQP list of constituents identified in the method specific analyte list presented in the DKQP documents.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth Porta

Title: Technical Director/Representative Date: 08/26/16

ORGANICS

SEMIVOLATILES

Project Name: FORD-RIDGEWOOD
Project Number: 140802-015
Lab Number: L1626118
Report Date: 08/26/16

SAMPLE RESULTS

Lab ID: L1626118-01
Client ID: SC-1-081916
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/24/16 14:54
Analyst: WR

Date Collected: 08/19/16 11:35
Date Received: 08/19/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/23/16 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.905		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RIDGEWOOD
Lab Number: L1626118
Project Number: 140802-015
Report Date: 08/26/16

SAMPLE RESULTS

Lab ID: L1626118-02
Client ID: SW-11-081916
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/24/16 15:39
Analyst: WR

Date Collected: 08/19/16 08:25
Date Received: 08/19/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/23/16 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.160	0.0798	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RIDGEWOOD
Lab Number: L1626118
Project Number: 140802-015
Report Date: 08/26/16

SAMPLE RESULTS

Lab ID: L1626118-03
Client ID: SW-PAB-00-081916
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/24/16 16:23
Analyst: WR

Date Collected: 08/19/16 07:55
Date Received: 08/19/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/23/16 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RIDGEWOOD
Lab Number: L1626118
Project Number: 140802-015
Report Date: 08/26/16

SAMPLE RESULTS

Lab ID: L1626118-04
Client ID: SR3-POND-081916
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/24/16 17:08
Analyst: WR

Date Collected: 08/19/16 10:35
Date Received: 08/19/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/23/16 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	2.94		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	27		15-110

Project Name: FORD-RIDGEWOOD
Lab Number: L1626118
Project Number: 140802-015
Report Date: 08/26/16

SAMPLE RESULTS

Lab ID: L1626118-05
Client ID: SR3-SEEP-1-081916
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/24/16 19:22
Analyst: WR

Date Collected: 08/19/16 11:40
Date Received: 08/19/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/23/16 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	3.43		ug/l	0.163	0.0815	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	26		15-110

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626118

Project Number: 140802-015 **Report Date:** 08/26/16

SAMPLE RESULTS

Lab ID:	L1626118-06	Date Collected:	08/19/16 12:10
Client ID:	SR3-SEEP-2-081916	Date Received:	08/19/16
Sample Location:	RIDGEWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/23/16 15:00
Analytical Date:	08/24/16 21:43		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	3.50		ug/l	0.160	0.0798	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RIDGEWOOD
Lab Number: L1626118
Project Number: 140802-015
Report Date: 08/26/16

SAMPLE RESULTS

Lab ID:	L1626118-07	Date Collected:	08/19/16 13:15
Client ID:	SW-PAB-01-081916	Date Received:	08/19/16
Sample Location:	RIDGEWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/23/16 15:00
Analytical Date:	08/24/16 22:27		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	1.40		ug/l	0.150	0.0750	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	26		15-110

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626118

Project Number: 140802-015 **Report Date:** 08/26/16

SAMPLE RESULTS

Lab ID:	L1626118-08	Date Collected:	08/19/16 13:40
Client ID:	SW-PAB-01A-081916	Date Received:	08/19/16
Sample Location:	RIDGEWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/23/16 15:00
Analytical Date:	08/24/16 23:10		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	2.32		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	22		15-110

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626118

Project Number: 140802-015 **Report Date:** 08/26/16

SAMPLE RESULTS

Lab ID:	L1626118-09	Date Collected:	08/19/16 13:05
Client ID:	SW-MRB-00-081916	Date Received:	08/19/16
Sample Location:	RIDGEWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/23/16 15:00
Analytical Date:	08/24/16 23:54		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.150	0.0750	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: FORD-RIDGEWOOD
Project Number: 140802-015
Lab Number: L1626118
Report Date: 08/26/16

SAMPLE RESULTS

Lab ID: L1626118-10
Client ID: SW-NOB-02-081916
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/25/16 00:38
Analyst: WR

Date Collected: 08/19/16 10:25
Date Received: 08/19/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/23/16 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.150	0.0750	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RIDGEWOOD
Project Number: 140802-015
Lab Number: L1626118
Report Date: 08/26/16

SAMPLE RESULTS

Lab ID: L1626118-11
Client ID: SW-PAB-04-081916
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/25/16 01:22
Analyst: WR

Date Collected: 08/19/16 10:40
Date Received: 08/19/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/23/16 15:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.340		ug/l	0.160	0.0798	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RIDGEWOOD
Lab Number: L1626118
Project Number: 140802-015
Report Date: 08/26/16

SAMPLE RESULTS

Lab ID:	L1626118-12	Date Collected:	08/19/16 11:05
Client ID:	SW-SP-01-081916	Date Received:	08/19/16
Sample Location:	RIDGEWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/23/16 15:00
Analytical Date:	08/25/16 02:06		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.150	0.0750	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626118

Project Number: 140802-015 **Report Date:** 08/26/16

SAMPLE RESULTS

Lab ID:	L1626118-13	Date Collected:	08/19/16 12:40
Client ID:	SW-03-081916	Date Received:	08/19/16
Sample Location:	RIDGEWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/23/16 15:00
Analytical Date:	08/25/16 02:50		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626118

Project Number: 140802-015 **Report Date:** 08/26/16

SAMPLE RESULTS

Lab ID:	L1626118-14	Date Collected:	08/19/16 12:05
Client ID:	SW-04-081916	Date Received:	08/19/16
Sample Location:	RIDGEWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/23/16 15:00
Analytical Date:	08/25/16 03:34		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626118

Project Number: 140802-015 **Report Date:** 08/26/16

SAMPLE RESULTS

Lab ID:	L1626118-15	Date Collected:	08/19/16 13:40
Client ID:	SW-MRB-03-081916	Date Received:	08/19/16
Sample Location:	RIDGEWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/23/16 15:00
Analytical Date:	08/25/16 04:17		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.150	0.0750	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	28		15-110

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626118

Project Number: 140802-015 **Report Date:** 08/26/16

SAMPLE RESULTS

Lab ID:	L1626118-16	Date Collected:	08/19/16 13:55
Client ID:	SW-MRB-02-081916	Date Received:	08/19/16
Sample Location:	RIDGEWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/23/16 15:00
Analytical Date:	08/25/16 05:01		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.150	0.0750	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626118

Project Number: 140802-015 **Report Date:** 08/26/16

SAMPLE RESULTS

Lab ID:	L1626118-17	Date Collected:	08/19/16 14:30
Client ID:	FB-03-081916	Date Received:	08/19/16
Sample Location:	RIDGEWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/23/16 15:00
Analytical Date:	08/25/16 05:45		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.150	0.0750	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	23		15-110

Project Name: FORD-RIDGEWOOD
Project Number: 140802-015

Lab Number: L1626118
Report Date: 08/26/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 08/24/16 12:40
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 08/23/16 15:00

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01-17 Batch: WG925191-1					
1,4-Dioxane	ND		ug/l	0.150	0.0750

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	30		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORD-RIDGEWOOD

Project Number: 140802-015

Lab Number: L1626118

Report Date: 08/26/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab	Associated sample(s): 01-17		Batch: WG925191-2		WG925191-3			
1,4-Dioxane	110		111		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	24		29		15-110

Matrix Spike Analysis
Batch Quality Control

Project Name: FORD-RIDGEWOOD
Project Number: 140802-015

Lab Number: L1626118
Report Date: 08/26/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 01-17 QC Batch ID: WG925191-4 WG925191-5 QC Sample: L1626118-04 Client ID: SR3-POND-081916												
1,4-Dioxane	2.94	5.21	8.75	112		8.62	111		40-140	1		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		24		15-110

Project Name: FORD-RIDGEWOOD
Project Number: 140802-015

Lab Number: L1626118
Report Date: 08/26/16

Sample Receipt and Container Information

Were project specific reporting limits specified? NO

Cooler Information Custody Seal

Cooler	
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1626118-01A	Amber 500ml unpreserved	A	7	2.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-01B	Amber 500ml unpreserved	A	7	2.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-02A	Amber 500ml unpreserved	A	7	2.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-02B	Amber 500ml unpreserved	A	7	2.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-03A	Amber 500ml unpreserved	A	7	2.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-03B	Amber 500ml unpreserved	A	7	2.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-04A	Amber 500ml unpreserved	A	7	2.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-04A1	Amber 500ml unpreserved	A	7	2.2	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-04A2	Amber 500ml unpreserved	A	7	2.2	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-04B	Amber 500ml unpreserved	A	7	2.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-04B1	Amber 500ml unpreserved	A	7	2.2	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-04B2	Amber 500ml unpreserved	A	7	2.2	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-05A	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-05B	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-06A	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-06B	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-07A	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-07B	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-08A	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-08B	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-09A	Amber 500ml unpreserved	A	7	2.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-09B	Amber 500ml unpreserved	A	7	2.6	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-10A	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-10B	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-11A	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-11B	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-12A	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-12B	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)

*Values in parentheses indicate holding time in days

Project Name: FORD-RIDGEWOOD
Project Number: 140802-015

Lab Number: L1626118
Report Date: 08/26/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1626118-13A	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-13B	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-14A	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-14B	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-15A	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-15B	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-16A	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-16B	Amber 500ml unpreserved	B	7	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-17A	Amber 500ml unpreserved	A	7	2.2	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-17B	Amber 500ml unpreserved	A	7	2.2	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626118-18A	Amber 500ml unpreserved	A	7	2.2	Y	Absent	-
L1626118-18B	Amber 500ml unpreserved	A	7	2.2	Y	Absent	-
L1626118-19A	Amber 500ml unpreserved	A	7	2.2	Y	Absent	-
L1626118-19B	Amber 500ml unpreserved	A	7	2.2	Y	Absent	-

*Values in parentheses indicate holding time in days

Project Name:	FORD-RIDGEWOOD	**Lab Number:**	L1626118
Project Number:	140802-015	**Report Date:**	08/26/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: DU Report with 'J' Qualifiers

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626118

Project Number: 140802-015 **Report Date:** 08/26/16

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name: FORD-RIDGEWOOD
Project Number: 140802-015
Lab Number: L1626118
Report Date: 08/26/16

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: ***EPA 3050B***

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL
Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 8/20/16

ALPHA Job #: L626118

Client Information
Client: Cornerstone Env Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 8456950200
Fax:
Email:

Project Information
Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #
(Use Project name as Project #) ☐
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information
☐ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

A2 1,4 Dioxane SIM - PPB

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4 Dioxane SIM - PPB	Sample Specific Comments
26118-01	SC-1-081916	8/19/16	11:35	GW		✓	
-02	SW1-081916	8/19/16	08:25	SW		✓	
-03	SW-PAB-00-081916	8/19/16	07:55	SW		✓	
-04	SR3-Pond-081916	8/19/16	10:35	SW		✓	
-05	SR3-Pond-081916 MS	8/19/16	10:35	SW		✓	
-06	SR3-Pond-081916 MSD	8/19/16	10:35	SW		✓	
-07	SR3-SEEP1-081916	8/19/16	11:40	SW		✓	
-08	SR3-SEEP-2-081916	8/19/16	12:10	SW		✓	
-09	SW-PAB-01-081916	8/19/16	13:15	SW		✓	
-10	SW-PAB-01A-081916	8/19/16	13:40	SW		✓	

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8-19-16 1500		8-19-16 1500
	8-19-16 1800		8/19/16 1800
			8/19/16 22:00
	8/20/16 02:30		8-20-16 02:30
	8-20-16 03:35		8/20/16 03:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 8/20/16

ALPHA Job #: L1626118

Client Information

Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 8456950200
Fax:
Email:

Project Information

Project Name: Ford-Ringwood
Project Location: Ringwood NJ
Project #
(Use Project name as Project #) ☐
Project Manager: Tina Roeper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: A2 1,4 Dioxane SIM - PAB	Total Bottle
26218-01	SW-MRB-00-081916		13:05	SW		✓	
-10-12	SW-NOB02-081916		10:25	SW		✓	
-11-13	SW-PAB-04-081916		10:40	SW		✓	
-12-14	SW-SP-01-081916		11:05	SW		✓	
-13-15	SW-03-081916		12:40	SW		✓	
-14-16	SW-04-081916		12:05	SW		✓	
-15-17	SW-MRB-03-081916		13:40	SW		✓	
-16-18	SW-MRB-02-081916		13:55	SW		✓	
-17-19	FB-03-081916		14:30	BW		✓	
(BB)							

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8-19-16 1500	AAL	8-19-16 1500
	8-19-16 1500		8/19/16 1500
			8/19/16 22:40
	8/20/16 0225	AL Williams	8-20-16 02:30
AL Williams	8-20-16 03:35		8/20/16 03:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Alpha
Summary Forms

Organic Summary Forms

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-01	**Date Collected**	: 08/19/16 11:35
Client ID	: SC-1-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/24/16 14:54
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241606	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.905	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-02	**Date Collected**	: 08/19/16 08:25
Client ID	: SW-11-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/24/16 15:39
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241607	**Analyst**	: WR
Sample Amount	: 470 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.160	0.0798	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-03	**Date Collected**	: 08/19/16 07:55
Client ID	: SW-PAB-00-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/24/16 16:23
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241608	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.147	0.0735	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-04	**Date Collected**	: 08/19/16 10:35
Client ID	: SR3-POND-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/24/16 17:08
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241609	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	2.94	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-05	**Date Collected**	: 08/19/16 11:40
Client ID	: SR3-SEEP-1-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/24/16 19:22
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241612	**Analyst**	: WR
Sample Amount	: 460 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	3.43	0.163	0.0815	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-06	**Date Collected**	: 08/19/16 12:10
Client ID	: SR3-SEEP-2-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/24/16 21:43
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241615	**Analyst**	: WR
Sample Amount	: 470 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	3.50	0.160	0.0798	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-07	**Date Collected**	: 08/19/16 13:15
Client ID	: SW-PAB-01-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/24/16 22:27
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241616	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	1.40	0.150	0.0750	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-08	**Date Collected**	: 08/19/16 13:40
Client ID	: SW-PAB-01A-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/24/16 23:10
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241617	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	2.32	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-09	**Date Collected**	: 08/19/16 13:05
Client ID	: SW-MRB-00-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/24/16 23:54
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241618	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-10	**Date Collected**	: 08/19/16 10:25
Client ID	: SW-NOB-02-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/25/16 00:38
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241619	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-11	**Date Collected**	: 08/19/16 10:40
Client ID	: SW-PAB-04-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/25/16 01:22
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241620	**Analyst**	: WR
Sample Amount	: 470 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.340	0.160	0.0798	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-12	**Date Collected**	: 08/19/16 11:05
Client ID	: SW-SP-01-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/25/16 02:06
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241621	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-13	**Date Collected**	: 08/19/16 12:40
Client ID	: SW-03-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/25/16 02:50
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241622	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.147	0.0735	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-14	**Date Collected**	: 08/19/16 12:05
Client ID	: SW-04-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/25/16 03:34
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241623	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.147	0.0735	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-15	**Date Collected**	: 08/19/16 13:40
Client ID	: SW-MRB-03-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/25/16 04:17
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241624	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-16	**Date Collected**	: 08/19/16 13:55
Client ID	: SW-MRB-02-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/25/16 05:01
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241625	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab ID	: L1626118-17	**Date Collected**	: 08/19/16 14:30
Client ID	: FB-03-081916	**Date Received**	: 08/19/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/25/16 05:45
Sample Matrix	: WATER	**Date Extracted**	: 08/23/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608241626	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	Lab Number	: L1626118
Project Name	: FORD-RIDGEWOOD	Project Number	: 140802-015
Lab ID	: WG925191-1	Date Collected	: NA
Client ID	: WG925191-1BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 08/24/16 12:40
Sample Matrix	: WATER	Date Extracted	: 08/23/16
Analytical Method	: 1,8270D-SIM	Dilution Factor	: 1
Lab File ID	: F608241603	Analyst	: WR
Sample Amount	: 500 ml	Instrument ID	: BNA6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 5000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 2
Surrogate Recovery
SEMIVOLATILES

Client: Cornerstone/Cadena Co. joint account
Project Name: FORD-RIDGEWOOD

Lab Number: L1626118
Project Number: 140802-015
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 ()	S2 ()	S3 ()	S4 ()	S5 ()	S6 ()	TOT OUT
FB-03-081916 (L1626118-17)	23	--	--	--	--	--	0
WG925191-3LCSD	29	--	--	--	--	--	0
WG925191-2LCS	24	--	--	--	--	--	0
WG925191-1BLANK	30	--	--	--	--	--	0
SR3-POND-081916MS	25	--	--	--	--	--	0
SR3-POND-081916MSD	24	--	--	--	--	--	0
SC-1-081916 (L1626118-01)	24	--	--	--	--	--	0
SR3-POND-081916 (L1626118-04)	27	--	--	--	--	--	0
SR3-SEEP-1-081916 (L1626118-05)	26	--	--	--	--	--	0
SR3-SEEP-2-081916 (L1626118-06)	24	--	--	--	--	--	0
SW-03-081916 (L1626118-13)	24	--	--	--	--	--	0
SW-04-081916 (L1626118-14)	24	--	--	--	--	--	0
SW-11-081916 (L1626118-02)	24	--	--	--	--	--	0
SW-MRB-00-081916 (L1626118-09)	25	--	--	--	--	--	0
SW-MRB-02-081916 (L1626118-16)	24	--	--	--	--	--	0
SW-MRB-03-081916 (L1626118-15)	28	--	--	--	--	--	0
SW-NOB-02-081916 (L1626118-10)	24	--	--	--	--	--	0
SW-PAB-00-081916 (L1626118-03)	24	--	--	--	--	--	0
SW-PAB-01-081916 (L1626118-07)	26	--	--	--	--	--	0
SW-PAB-01A-081916 (L1626118-08)	22	--	--	--	--	--	0
SW-PAB-04-081916 (L1626118-11)	24	--	--	--	--	--	0
SW-SP-01-081916 (L1626118-12)	24	--	--	--	--	--	0

	QC LIMITS
S1 = 1,4-DIOXANE-D8	(15-110)

*** Values outside of QC limits**

FORM II A2-14-DIOXANESIM-PPB

Laboratory Control Sample
Form 3

Client	: Cornerstone/Cadena Co. joint accoun		**Lab Number**	: L1626118	
Project Name	: FORD-RIDGEWOOD		**Project Number**	: 140802-015	
Matrix	: WATER				
LCS Sample ID	: WG925191-2	**Analysis Date :** 08/24/16 13:24	**File ID**	: F608241604	
LCSD Sample ID	: WG925191-3	**Analysis Date :** 08/24/16 14:09	**File ID**	: F608241605	

	Laboratory Control Sample			Laboratory Control Duplicate					
	True	Found	%R	True	Found	%R	RPD	Recovery	RPD
Parameter	(ug/l)	(ug/l)		(ug/l)	(ug/l)			Limits	Limit
1,4-Dioxane	5	5.52	110	5	5.56	111	1	40-140	30

Matrix Spike
Form 3

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Client Sample ID	: SR3-POND-081916	**Matrix**	: WATER
Lab Sample ID	: L1626118-04	**Analysis Date**	: 08/24/16 17:08
Matrix Spike	: WG925191-4	**MS Analysis Date**	: 08/24/16 17:53
Matrix Spike Dup	: WG925191-5	**MSD Analysis Date**	: 08/24/16 18:38

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	**Sample Conc. (ug/l)**	**Spike Added (ug/l)**	**Spike Conc. (ug/l)**	**%R**	**Spike Added (ug/l)**	**Spike Conc. (ug/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
1,4-Dioxane	2.94	5.21	8.75	112	5.1	8.62	111	1	40-140	30

Method Blank Summary
Form 4

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Lab Sample ID	: WG925191-1	**Lab File ID**	: F608241603
Instrument ID	: BNA6	**Extraction Date**	: 08/23/16
Matrix	: WATER	**Analysis Date**	: 08/24/16 12:40
Level	: LOW		

Client Sample No.	Lab Sample ID	Analysis Date
WG925191-2LCS	WG925191-2	08/24/16 13:24
WG925191-3LCSD	WG925191-3	08/24/16 14:09
SC-1-081916	L1626118-01	08/24/16 14:54
SW-11-081916	L1626118-02	08/24/16 15:39
SW-PAB-00-081916	L1626118-03	08/24/16 16:23
SR3-POND-081916	L1626118-04	08/24/16 17:08
SR3-POND-081916MS	WG925191-4	08/24/16 17:53
SR3-POND-081916MSD	WG925191-5	08/24/16 18:38
SR3-SEEP-1-081916	L1626118-05	08/24/16 19:22
SR3-SEEP-2-081916	L1626118-06	08/24/16 21:43
SW-PAB-01-081916	L1626118-07	08/24/16 22:27
SW-PAB-01A-081916	L1626118-08	08/24/16 23:10
SW-MRB-00-081916	L1626118-09	08/24/16 23:54
SW-NOB-02-081916	L1626118-10	08/25/16 00:38
SW-PAB-04-081916	L1626118-11	08/25/16 01:22
SW-SP-01-081916	L1626118-12	08/25/16 02:06
SW-03-081916	L1626118-13	08/25/16 02:50
SW-04-081916	L1626118-14	08/25/16 03:34
SW-MRB-03-081916	L1626118-15	08/25/16 04:17
SW-MRB-02-081916	L1626118-16	08/25/16 05:01
FB-03-081916	L1626118-17	08/25/16 05:45

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/10/16 13:25
Tune Standard	: R891220-9	**Tune File ID**	: F608101603_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	28.1
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	38.3
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.8
275	10.0 - 60.0% of Base Peak	28.4
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	15.6
442	Base Peak, or >50% of mass 198	94.3
443	15.0 - 24.0% of mass 442	18.3 (19.4)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD 10	R891220-2	F608101604	08/10/16 14:22
STD 50	R891220-3	F608101605	08/10/16 15:07
STD 100	R891220-4	F608101606	08/10/16 15:51
STD 500	R891220-5	F608101607	08/10/16 16:36
STD 1000	R891220-1	F608101608	08/10/16 17:21
STD 5000	R891220-6	F608101609	08/10/16 18:06
STD 10000	R891220-7	F608101610	08/10/16 18:51
ICV Quant Report STD 1000	R891220-8	F608101611	08/10/16 19:36

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/24/16 08:58
Tune Standard	: WG925553-1	**Tune File ID**	: F608241601_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	28.2
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	38.6
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	7.2
275	10.0 - 60.0% of Base Peak	27.8
365	Greater than 1.0% of mass 198	2.7
441	Present, but less than 24% of mass 442	15.2
442	Base Peak, or >50% of mass 198	87.1
443	15.0 - 24.0% of mass 442	17.2 (19.8)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG925553-3CCAL	WG925553-3	F608241602	08/24/16 09:54
WG925191-1BLANK	WG925191-1	F608241603	08/24/16 12:40
WG925191-2LCS	WG925191-2	F608241604	08/24/16 13:24
WG925191-3LCSD	WG925191-3	F608241605	08/24/16 14:09
SC-1-081916	L1626118-01	F608241606	08/24/16 14:54
SW-11-081916	L1626118-02	F608241607	08/24/16 15:39
SW-PAB-00-081916	L1626118-03	F608241608	08/24/16 16:23
SR3-POND-081916	L1626118-04	F608241609	08/24/16 17:08
WG925191-4MS	WG925191-4	F608241610	08/24/16 17:53
WG925191-5MSD	WG925191-5	F608241611	08/24/16 18:38
SR3-SEEP-1-081916	L1626118-05	F608241612	08/24/16 19:22

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/24/16 20:02
Tune Standard	: WG925553-4	**Tune File ID**	: F608241613_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	27.1
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	37.6
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.9
275	10.0 - 60.0% of Base Peak	29
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	15.6
442	Base Peak, or >50% of mass 198	94.6
443	15.0 - 24.0% of mass 442	18.5 (19.6)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG925553-6CCAL	WG925553-6	F608241614	08/24/16 20:59
SR3-SEEP-2-081916	L1626118-06	F608241615	08/24/16 21:43
SW-PAB-01-081916	L1626118-07	F608241616	08/24/16 22:27
SW-PAB-01A-081916	L1626118-08	F608241617	08/24/16 23:10
SW-MRB-00-081916	L1626118-09	F608241618	08/24/16 23:54
SW-NOB-02-081916	L1626118-10	F608241619	08/25/16 00:38
SW-PAB-04-081916	L1626118-11	F608241620	08/25/16 01:22
SW-SP-01-081916	L1626118-12	F608241621	08/25/16 02:06
SW-03-081916	L1626118-13	F608241622	08/25/16 02:50
SW-04-081916	L1626118-14	F608241623	08/25/16 03:34
SW-MRB-03-081916	L1626118-15	F608241624	08/25/16 04:17
SW-MRB-02-081916	L1626118-16	F608241625	08/25/16 05:01
FB-03-081916	L1626118-17	F608241626	08/25/16 05:45

Initial Calibration Summary
Form 6

Client	**: Cornerstone/Cadena Co. joint accoun**	**Lab Number**	**: L1626118**
Project Name	**: FORD-RIDGEWOOD**	**Project Number**	**: 140802-015**
Instrument ID	**: BNA6**	**Ical Ref**	**: ICAL12751**
Calibration dates	**: 08/10/16 14:22 08/10/16 18:51**		

Calibration Files
10 =F608101604.D 50 =F608101605.D 100 =F608101606.D 500 =F608101607.D 1000=F608101608.D
5000=F608101609.D 1e4 =F608101610.D

		Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)		1,4-Dioxane-d8 (IS)	----------ISTD----------								
2)		1,4-dioxane	1.556	1.402	1.394	1.386	1.470	1.417	1.405	1.433	4.24
3)	I	1,4-Dichlorobenzene-d4	----------ISTD----------								
4)	s	1,4-dioxane-d8	0.428	0.444	0.423	0.441	0.417	0.442	0.435	0.433	2.41

Continuing Calibration
Form 7

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626118	
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015	
Instrument ID	: BNA6	**Calibration Date**	: 08/24/16 09:54	
Lab File ID	: F608241602	**Init. Calib. Date(s)**	: 08/10/16	08/10/16
Sample No	: WG925553-3	**Init. Calib. Times**	: 14:22	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	86	-.06
1,4-dioxane	1.433	1.441	-	-0.6	20	84	-.06
1,4-Dichlorobenzene-d4	1	1	-	0	20	87	-.09
1,4-dioxane-d8	0.433	0.409	-	5.5	20	84	-.06

* Value outside of QC limits.

Continuing Calibration
Form 7

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626118	
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015	
Instrument ID	: BNA6	**Calibration Date**	: 08/24/16 20:59	
Lab File ID	: F608241614	**Init. Calib. Date(s)**	: 08/10/16	08/10/16
Sample No	: WG925553-6	**Init. Calib. Times**	: 14:22	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	85	-.07
1,4-dioxane	1.433	1.458	-	-1.7	20	84	-.07
1,4-Dichlorobenzene-d4	1	1	-	0	20	87	-.09
1,4-dioxane-d8	0.433	0.407	-	6	20	83	-.07

* Value outside of QC limits.

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/24/16 09:54
Sample No	: WG925553-3	**Lab File ID**	: F608241602

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG925553-3	175005	15.42				
Upper Limit	350010	15.92				
Lower Limit	87503	14.92				
Sample ID						
WG925191-1 BLANK	159518	15.41				
WG925191-2 LCS	164625	15.43				
WG925191-3 LCSD	161611	15.42				
SC-1-081916	162901	15.43				
SW-11-081916	159932	15.43				
SW-PAB-00-081916	146623	15.43				
SR3-POND-081916	156693	15.43				
SR3-POND-081916 MS	152430	15.43				
SR3-POND-081916 MSD	148388	15.43				
SR3-SEEP-1-081916	156682	15.42				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626118
Project Name	: FORD-RIDGEWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/24/16 20:59
Sample No	: WG925553-6	**Lab File ID**	: F608241614

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG925553-6	174218	15.42				
Upper Limit	348436	15.92				
Lower Limit	87109	14.92				
Sample ID						
SR3-SEEP-2-081916	172318	15.42				
SW-PAB-01-081916	164847	15.42				
SW-PAB-01A-081916	165157	15.42				
SW-MRB-00-081916	159529	15.42				
SW-NOB-02-081916	159108	15.42				
SW-PAB-04-081916	161540	15.42				
SW-SP-01-081916	153951	15.42				
SW-03-081916	148853	15.43				
SW-04-081916	153703	15.42				
SW-MRB-03-081916	153102	15.42				
SW-MRB-02-081916	150042	15.43				
FB-03-081916	148438	15.42				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

ALPHA ANALYTICAL

World Class Chemistry

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Lab Number: L1626448

Client: Cornerstone/Cadena Co. joint acc

ATTN: Jim Tomalia

Project Name: FORD-RIDGEWOOD

Project Number:

September 21, 2016

Data Deliverable Revision Narrative
Alpha SDG: L1626448
Client: Cornerstone Environmental Group, LLC
Site: FORD-RINGWOOD

This data package replaces the data package issued on September 1, 2016. The package type has changed to DPKG-FULL.

Table of Contents

Table of Contents

Sample Delivery Group Information

Sample Delivery Group Form

Laboratory Job number: L1626448
Project Manager: Nichole Hunt **Review Date:** 08/24/2016
Project Number:
Project Name: FORD-RIDGEWOOD **Received:** 08/23/2016 08:40
Client Account: Cornerstone/Cadena Co. joint account **Received by:** BB

Samples Delivered by: COURIER **Call Tracker #**
Bill Of Laden N/A **Trackingnum**
Coc Present Present

Container Status Intact **Sample IDs**

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt 7 **Are samples Properly Preserved?** Yes
Initial pH **preserved in house with** **Final pH**
Other Issues
Chlorine Check N/A

Are VOA/VPH Vials Present? No
Aqueous: Do Vials Contain Head Space? N/A
Soils: Is MeOHCovering the Soil? N/A
Reagent H2O Preserved vials Frozen on N/A
Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
B	Absent	Yes	No	2.3 - IR Gun	No	No

A	Absent	Yes	No	3.8 - IR Gun	No	No

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 22 2016, 11:29 am

Login Number: L1626448
Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint account
Received: 23AUG16 Due Date: 02SEP16

Sample #	Client ID	Mat	PR	Collected	Container
L1626448-01	PMP-POND-082216	1	S0	22AUG16 08:30	2-Amber-A.5
| DPKG-FULL Package Due Date: 09/02/16					
A2-14-DIOXANESIM-PPB,DPKG-FULL,NJDEP					
L1626448-02	DUP-03-082216	1	S0	22AUG16 12:00	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-14-DIOXANESIM-PPB					
L1626448-03	SW-PAB-02-082216	1	S0	22AUG16 14:45	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-14-DIOXANESIM-PPB					
L1626448-04	SW-PAB-03-082216	1	S0	22AUG16 13:00	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-14-DIOXANESIM-PPB					
L1626448-05	SW-PMB-02-082216	1	S0	22AUG16 17:45	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-14-DIOXANESIM-PPB					
L1626448-06	SW-MRB-01-082216	1	S0	22AUG16 16:00	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-14-DIOXANESIM-PPB					
L1626448-07	SW-NOB-01-082216	1	S0	22AUG16 10:00	2-Amber-A.5
| Package Due Date: 09/02/16					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 22 2016, 11:29 am

Login Number: L1626448
Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint account
Received: 23AUG16 Due Date: 02SEP16

Sample #	Client ID	Mat	PR	Collected	Container
A2-14-DIOXANESIM-PPB					
L1626448-08	RW-12 (55-65)-08221	1	S0	22AUG16 16:00	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-14-DIOXANESIM-PPB					
L1626448-09	RW-2 (452-462)-0822	1	S0	22AUG16 13:00	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-14-DIOXANESIM-PPB					
L1626448-10	RW-2 (279-289)-0822	1	S0	22AUG16 11:05	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-14-DIOXANESIM-PPB					
L1626448-11	CMP-160-082216	1	S0	22AUG16 13:20	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-14-DIOXANESIM-PPB					
L1626448-12	CMP-100-082216	1	S0	22AUG16 11:40	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-14-DIOXANESIM-PPB					
L1626448-13	CMP-275-082216	1	S0	22AUG16 14:50	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-14-DIOXANESIM-PPB					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 22 2016, 11:29 am

Login Number: L1626448
Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint account
Received: 23AUG16 Due Date: 02SEP16

Sample #	Client ID	Mat	PR	Collected	Container
L1626448-14	CMP-50-082216	1	S0	22AUG16 10:30	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-14-DIOXANESIM-PPB					
L1626448-15	SW-PMB-01-082316	1	S0	23AUG16 07:03	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-14-DIOXANESIM-PPB					

Logged By: Nichole Hunt

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1626448-01A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626448-01A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A1	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626448-01A	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-01A	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626448-01B	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-01B	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626448-02A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626448-02A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A1	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626448-02A	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-02A	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626448-02B	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-02B	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626448-03A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626448-03A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A1	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626448-03A	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-03A	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626448-03B	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-03B	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626448-04A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626448-04A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A1	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626448-04A	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-04A	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626448-04B	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-04B	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626448-05A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1626448-05A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A1	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626448-05A	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-05A	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626448-05B	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-05B	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626448-06A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626448-06A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A1	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626448-06A	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-06A	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626448-06B	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-06B	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626448-07A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626448-07A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A1	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626448-07A	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-07A	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626448-07B	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-07B	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626448-08A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626448-08A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A1	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626448-08A	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-08A	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626448-08B	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-08B	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626448-09A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626448-09A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A1	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1626448-09A	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-09A	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626448-09B	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-09B	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626448-10A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626448-10A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A1	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626448-10A	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-10A	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626448-10B	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-10B	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626448-11A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626448-11A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A1	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626448-11A	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-11A	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626448-11B	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-11B	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626448-12A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626448-12A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A1	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626448-12A	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-12A	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626448-12B	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-12B	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626448-13A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626448-13A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A1	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626448-13A	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1626448-13A	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626448-13B	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-13B	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626448-14A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626448-14A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A1	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626448-14A	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-14A	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626448-14B	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-14B	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626448-15A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626448-15A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A1	Daniel Robbins	A2-ORGANIC PREP	A2-ORGANIC PREP	Daniel Robbins
L1626448-15A	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-15A	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626448-15B	Amber-A.5	INTACT	24-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A1	A2-CUSTODY-REFRIG-A1	Bethany Bedard
L1626448-15B	Amber-A.5	INTACT	24-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard

Chain of Custody

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab 8/24/16

ALPHA Job # L1626448

Client Information

Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 845 895 0200
Fax:
Email:

Project Information

Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #
(Use Project name as Project #) ☐
Project Manager: Tim Reaper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

A2 1,4 Dioxane SIM - PDB

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4 Dioxane SIM - PDB	Sample Specific Comments
26446-01	PMP-Pond-082216	8/22/16	08:30	SW	AL	✓	
-02	Dup-03-082216	8/22/16	12:00	SW	AL	✓	
-03	SW-PAB-02-082216	8/22/16	14:45	SW	AL	✓	
-04	SW-PAB-03-082216	8/22/16	13:00	SW	AL	✓	
-05	SW-PMB-02-082216	8/22/16	17:45	SW	AL	✓	
-06	SW-MRB-01-082216	8/22/16	16:00	SW	AL	✓	
-07	SW-NOB-01-082216	8/22/16	10:00	SW	AL	✓	
-08	RW-12 (55-65)-082216	8/22/16	16:10	GW	AL	✓	
-09	RW-2 (452-462)-082216	8/22/16	13:00	GW	AL	✓	
-10	RW-2 (279-289)-082216	8/22/16	11:05	GW	AL	✓	

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
		AL	8/23/16 8:40
AL	8/23/16 1810		8-23-16 1810
	8-23-16 2330		8/24/16 23:30
	8/24/16 0355		8/24/16 03:55

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 8/24/16

ALPHA Job #: L1626448

Client Information
Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information
Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #
(Use Project name as Project #) ☐
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information
☐ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4 Dioxane SIM - PPB	Sample Specific Comments
-11	CMP-160-082216	8/22/16	13:20	GW	RJ	✓	
-12	CMP-100-082216	8/22/16	11:40	GW	RJ	✓	
-13	CMP-275-082216	8/22/16	14:50	GW	RJ	✓	
-14	CMP-50-082216	8/22/16	16:30	GW	RJ	✓	
-15	SW-PMB-01-082316	8/23/16	07:30	SW	RJ	✓	

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
			8/23/16 8:30
	8/23/16 1810		8-23-16 1810
	8-23-16 2330		8/23/16 2312
	8/24/16 0355		8/24/16 03:55

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Organics

GCMS Extractables 1,4-Dioxane By SIM

Initial Calibration

Response Factor Report BNA6

Method Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Method File : 14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016
Response Via : Initial Calibration

Calibration Files
10 =F608101604.D 50 =F608101605.D 100 =F608101606.D 500 =F608101607.D 1000=F608101608.D
5000=F608101609.D 1e4 =F608101610.D

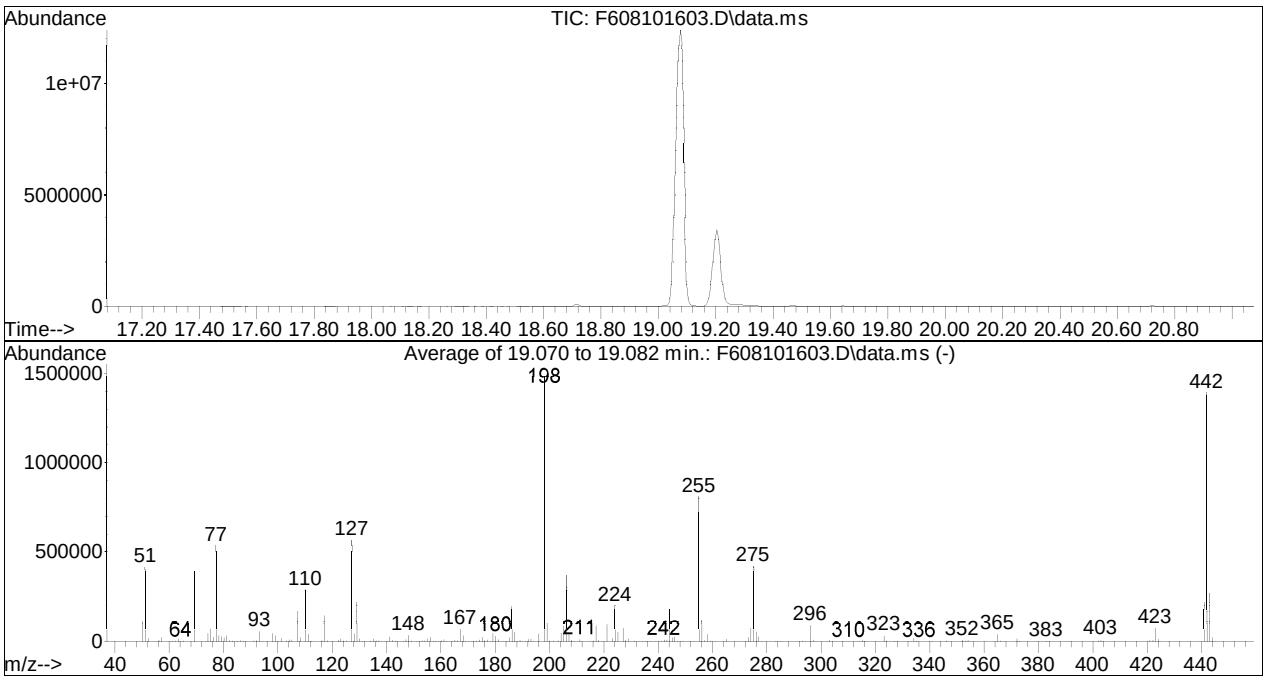
	Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)	1,4-Dioxane-d8 (IS)	ISTD								
2)	1,4-dioxane	1.556	1.402	1.394	1.386	1.470	1.417	1.405	1.433	4.24
3) I	1,4-Dichlorobenzene-d4	ISTD								
4) s	1,4-dioxane-d8	0.428	0.444	0.423	0.441	0.417	0.442	0.435	0.433	2.41

(#) = Out of Range

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101603.D
Acq On : 10 Aug 2016 1:25 pm
Operator : BNA6:SF
Sample : T608101601
Misc : WG921943,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



AutoFind: Scans 1879, 1880, 1881; Background Corrected with Scan 1856

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.1	414533	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2219	PASS
127	198	10	80	38.3	565504	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1476097	PASS
199	198	5	9	6.8	100408	PASS
275	198	10	60	28.4	419669	PASS
365	198	1	100	2.8	40728	PASS
441	442	0.01	24	15.6	217472	PASS
442	198	50	100	94.3	1392469	PASS
443	442	15	24	19.4	270059	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101604.D
Acq On : 10 Aug 2016 2:22 pm
Operator : BNA6:SF
Sample : I608101601
Misc : WG921943,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 12:53:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	85056	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.503	152	198789	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	85056	494.380	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 98.88%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.980	88	2647	10.858	ng/mL	98

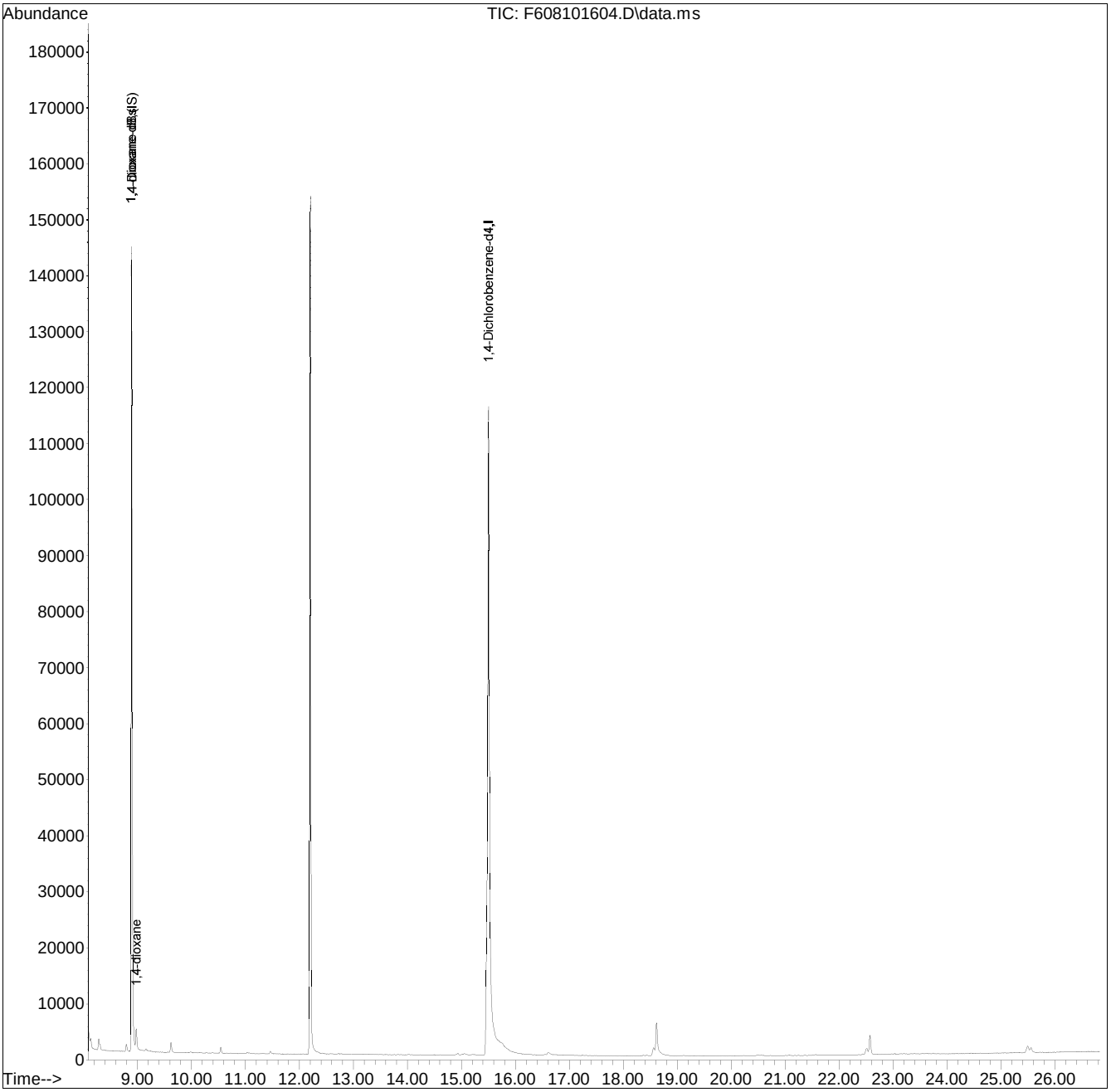
(#) = qualifier out of range (m) = manual integration (+) = signals summed

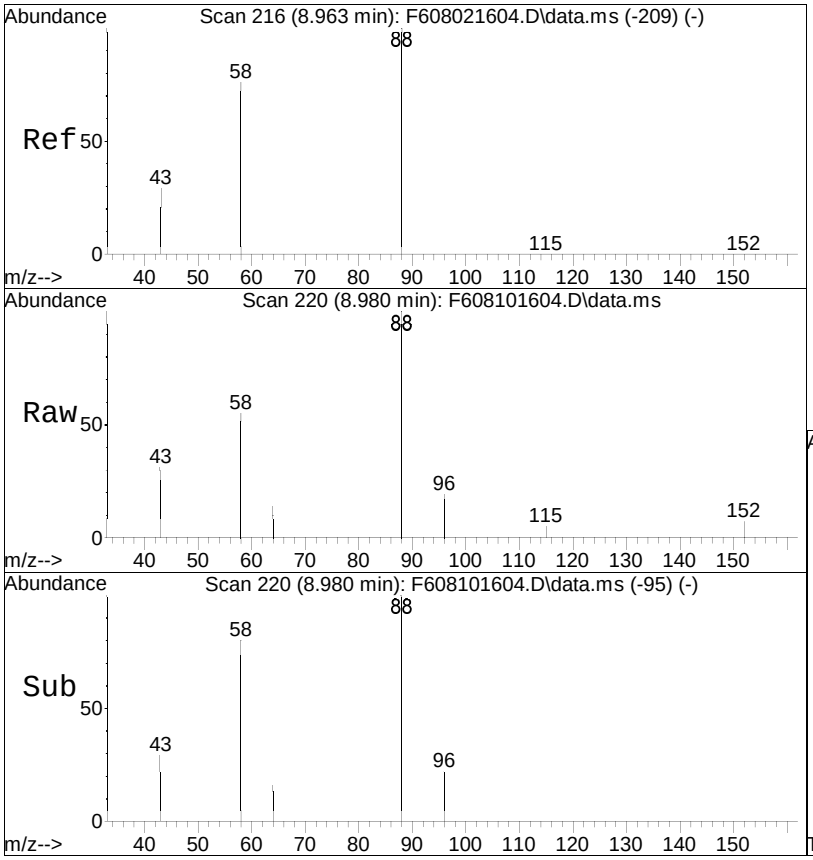
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101604.D
Acq On : 10 Aug 2016 2:22 pm
Operator : BNA6:SF
Sample : I608101601
Misc : WG921943,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 12:53:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

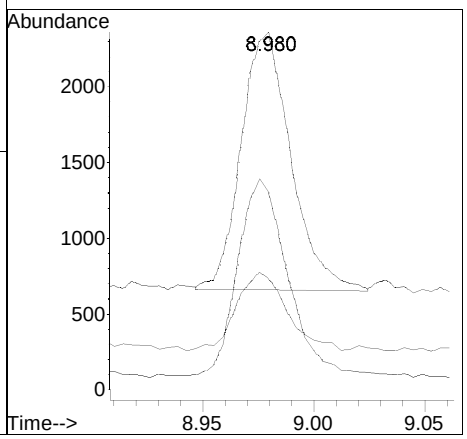




#2
1,4-dioxane
Concen: 10.86 ng/mL
RT: 8.980 min Scan# 220
Delta R.T. 0.008 min
Lab File: F608101604.D
Acq: 10 Aug 2016 2:22 pm

Tgt Ion: 88 Resp: 2647

Ion	Ratio	Lower	Upper
88	100		
58	76.2	62.1	93.1
43	31.4	24.4	36.6



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101604.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 2:22 pm	Instrument	: BNA6
Sample	: I608101601	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101605.D
Acq On : 10 Aug 2016 3:07 pm
Operator : BNA6:SF
Sample : I608101602
Misc : WG921943,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 11 12:53:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

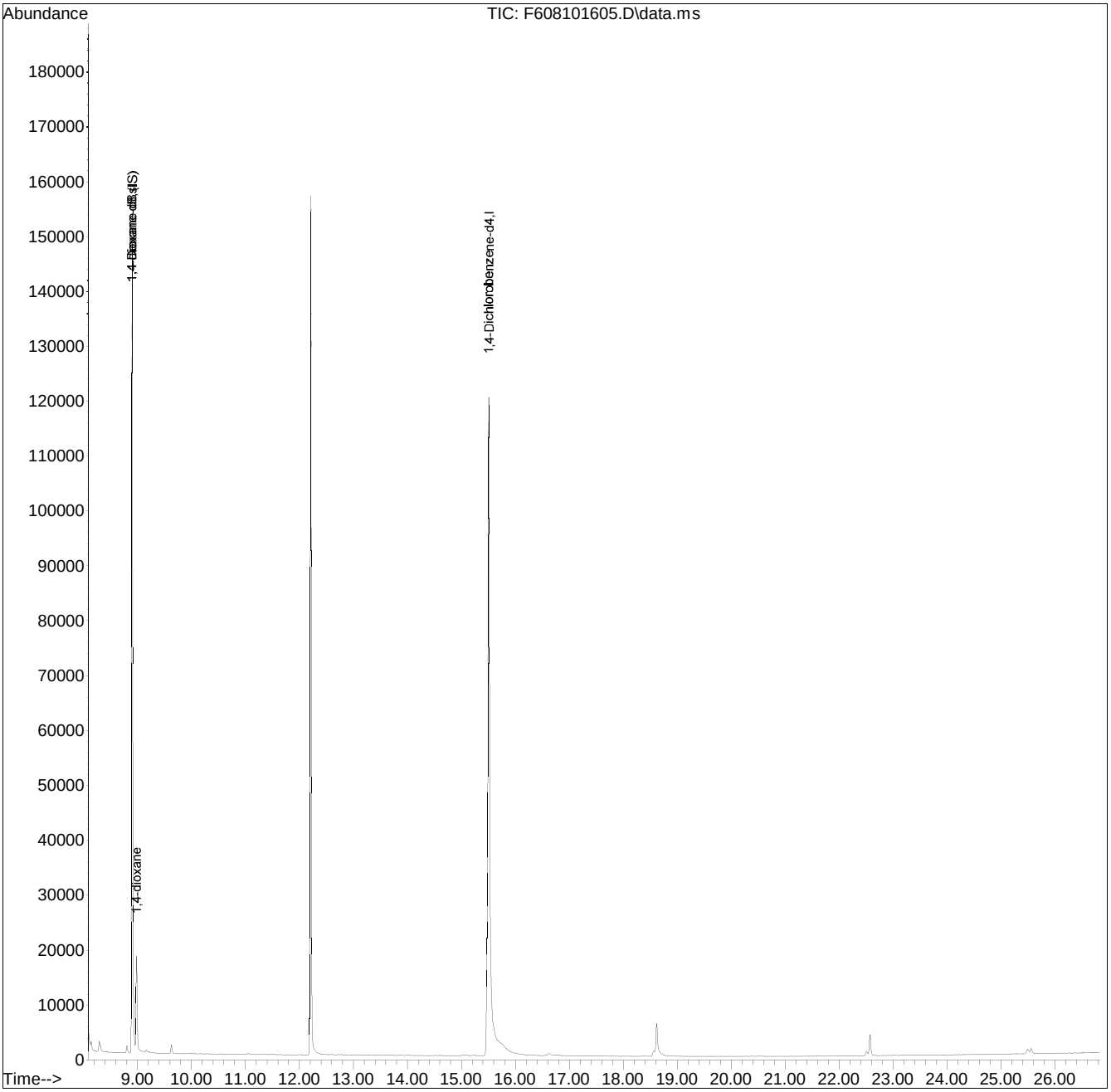
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	88228	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	198548	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	88228	513.440	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.69%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.984	88	12373	48.930	ng/mL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101605.D
Acq On : 10 Aug 2016 3:07 pm
Operator : BNA6:SF
Sample : I608101602
Misc : WG921943,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 11 12:53:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101605.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 3:07 pm	Instrument	: BNA6
Sample	: I608101602	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101606.D
Acq On : 10 Aug 2016 3:51 pm
Operator : BNA6:SF
Sample : I608101603
Misc : WG921943,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 11 12:53:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	86899	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	205668	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	86899	488.199	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 97.64%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.980	88	24230	97.284	ng/mL	99

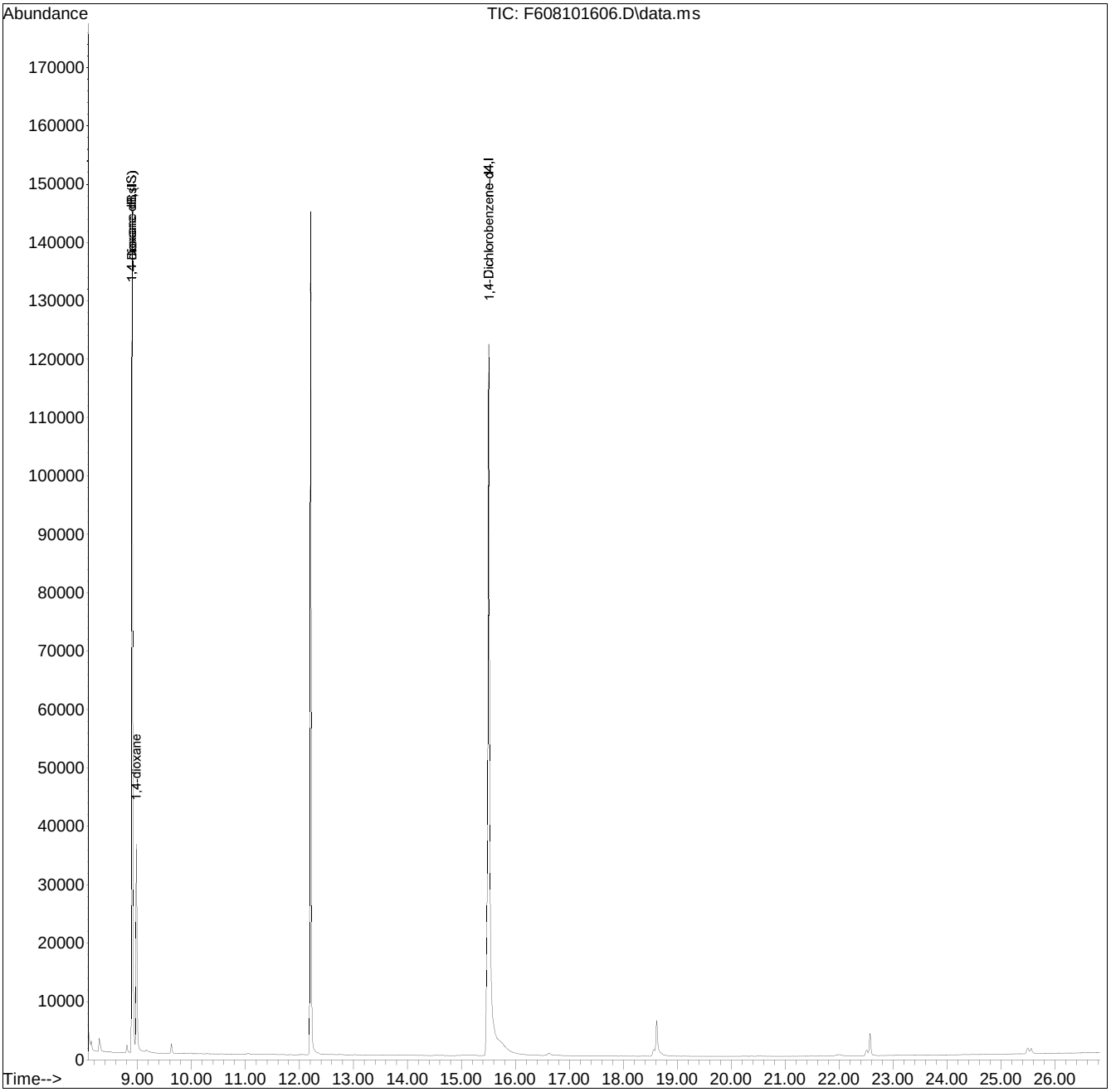
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101606.D
Acq On : 10 Aug 2016 3:51 pm
Operator : BNA6:SF
Sample : I608101603
Misc : WG921943,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 11 12:53:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101606.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 3:51 pm	Instrument	: BNA6
Sample	: I608101603	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101607.D
Acq On : 10 Aug 2016 4:36 pm
Operator : BNA6:SF
Sample : I608101604
Misc : WG921943,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 11 12:53:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

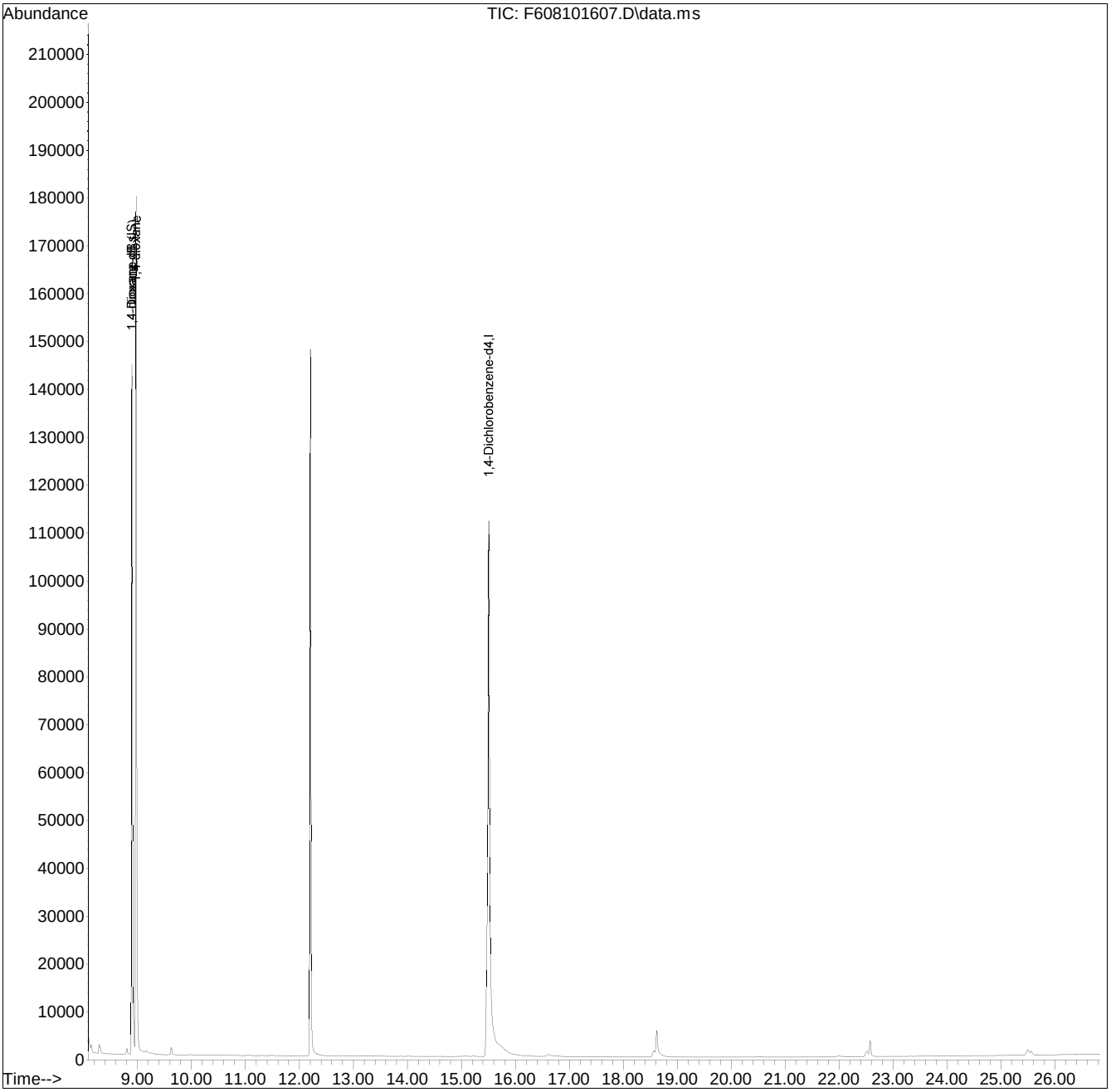
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	86585	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	196925	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	86794M4	509.257	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 101.85%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.972	88	120017M4	483.619	ng/mL	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101607.D
Acq On : 10 Aug 2016 4:36 pm
Operator : BNA6:SF
Sample : I608101604
Misc : WG921943,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 11 12:53:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

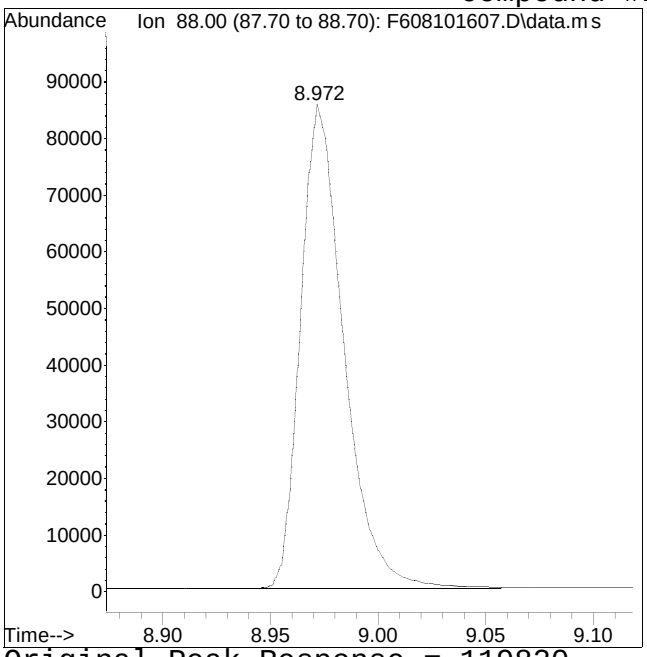
Sub List : Default - All compounds listed



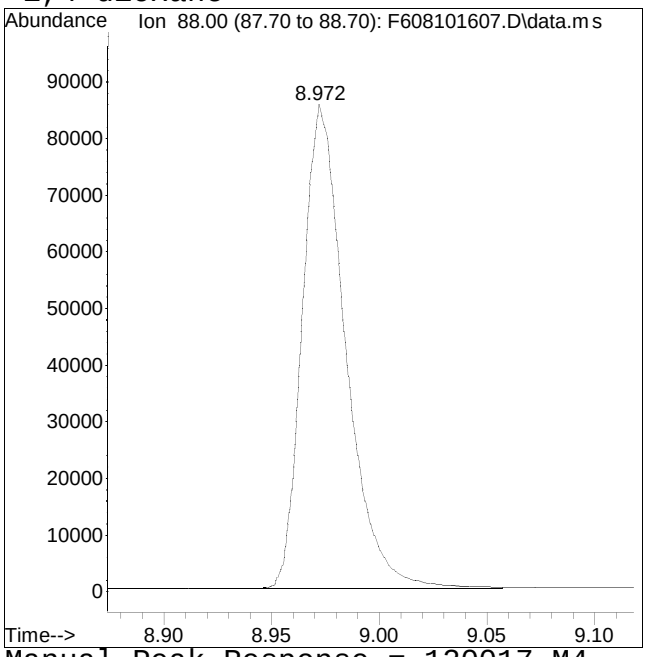
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101607.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 4:36 pm Instrument : BNA6
Sample : I608101604 Quant Date : 8/11/2016 12:53 pm

Compound #2: 1,4-dioxane



Original Peak Response = 119820



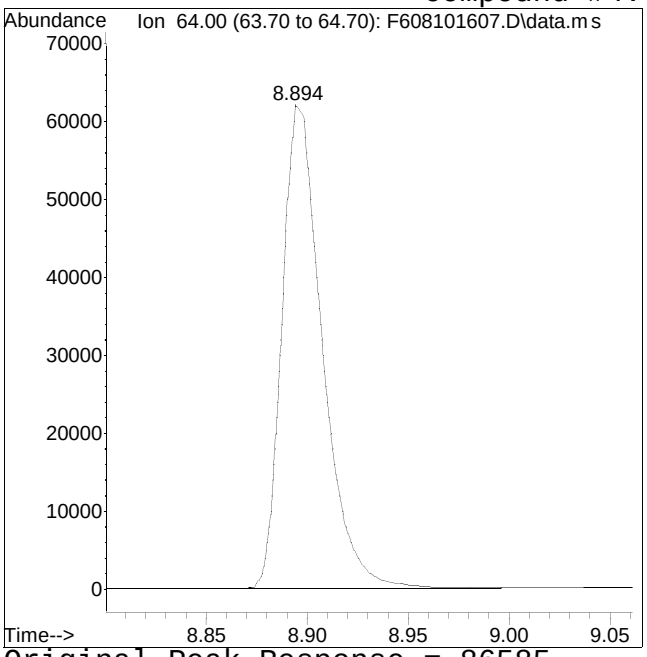
Manual Peak Response = 120017 M4

M4 = Poor automated baseline construction.

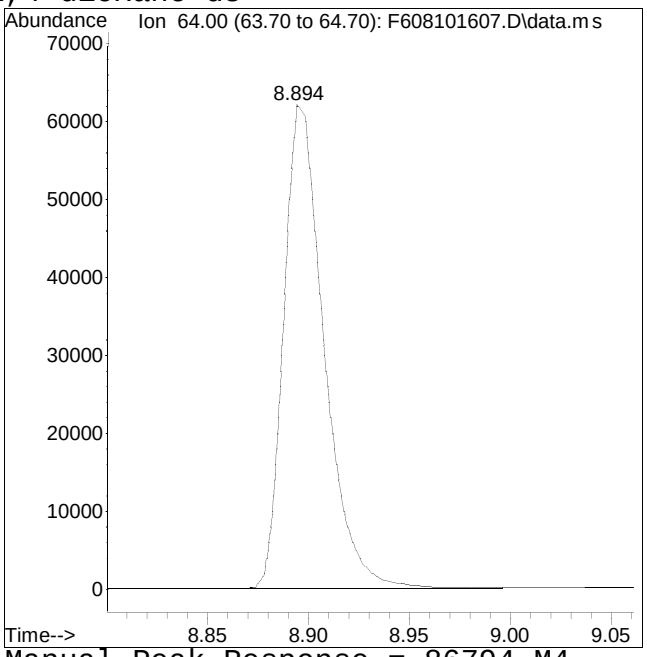
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101607.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 4:36 pm Instrument : BNA6
Sample : I608101604 Quant Date : 8/11/2016 12:53 pm

Compound #4: 1,4-dioxane-d8



Original Peak Response = 86585



Manual Peak Response = 86794 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101608.D
Acq On : 10 Aug 2016 5:21 pm
Operator : BNA6:SF
Sample : I608101605
Misc : WG921943,MSAK15
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 11 12:53:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	83650	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	200518	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	83650	482.016	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 96.40%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.971	88	245983	1025.987	ng/mL	99

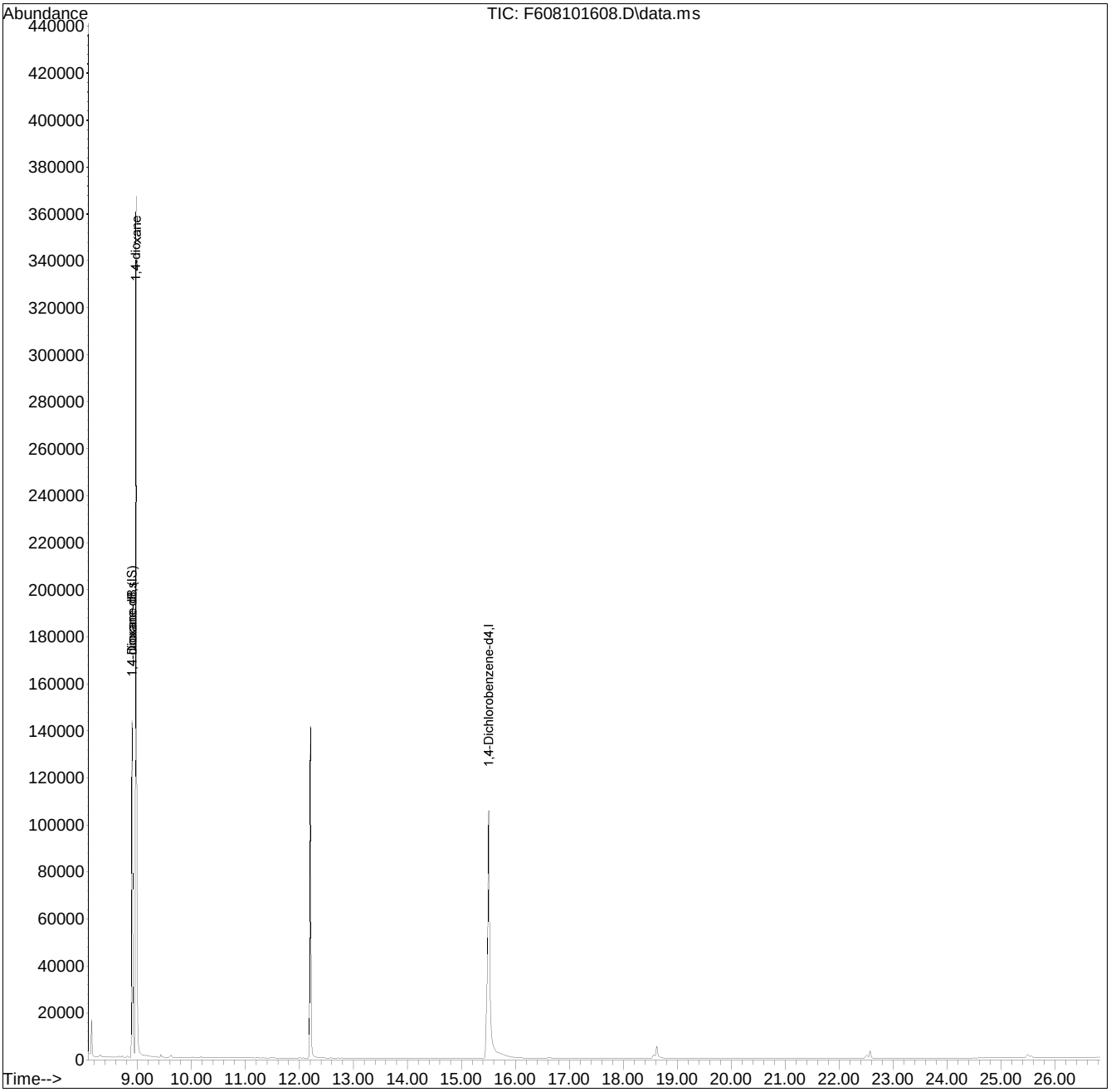
(#) = qualifier out of range (m) = manual integration (+) = signals summed

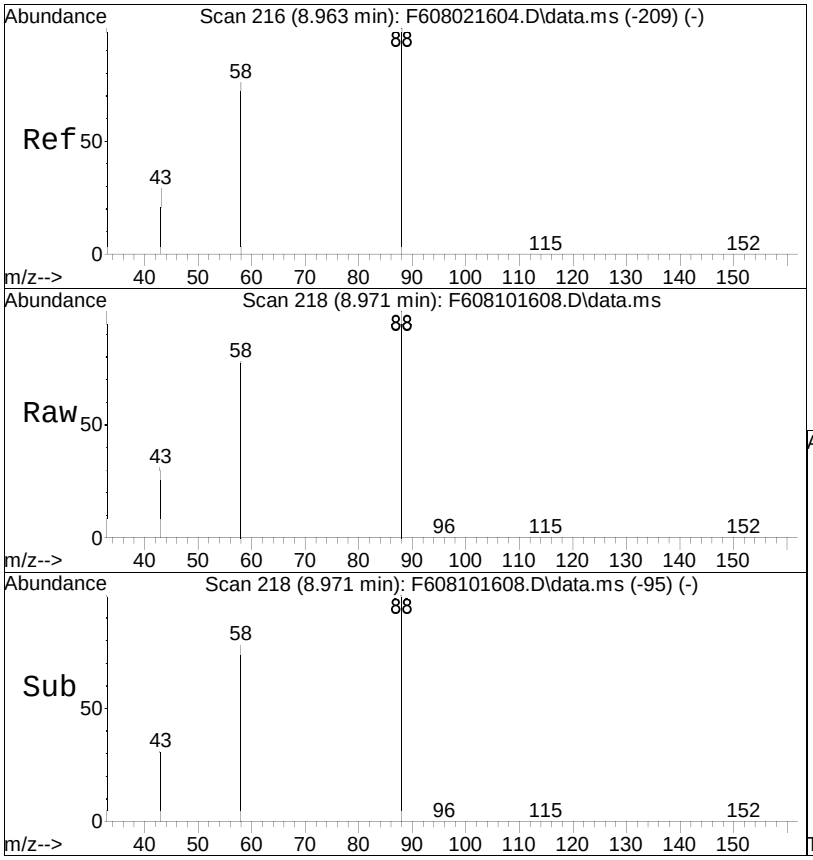
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101608.D
Acq On : 10 Aug 2016 5:21 pm
Operator : BNA6:SF
Sample : I608101605
Misc : WG921943,MSAK15
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 11 12:53:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

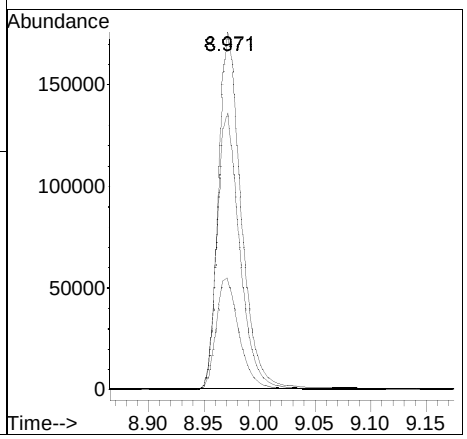




#2
1,4-dioxane
Concen: 1025.99 ng/mL
RT: 8.971 min Scan# 218
Delta R.T. 0.000 min
Lab File: F608101608.D
Acq: 10 Aug 2016 5:21 pm

Tgt Ion: 88 Resp: 245983

Ion	Ratio	Lower	Upper
88	100		
58	78.3	62.1	93.1
43	31.7	24.4	36.6



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101608.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 5:21 pm	Instrument	: BNA6
Sample	: I608101605	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101609.D
Acq On : 10 Aug 2016 6:06 pm
Operator : BNA6:SF
Sample : I608101606
Misc : WG921943,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 11 12:53:40 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	84632M4	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	191584	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	84626M4	510.379	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.08%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.963	88	1199636	4945.586	ng/mL	99

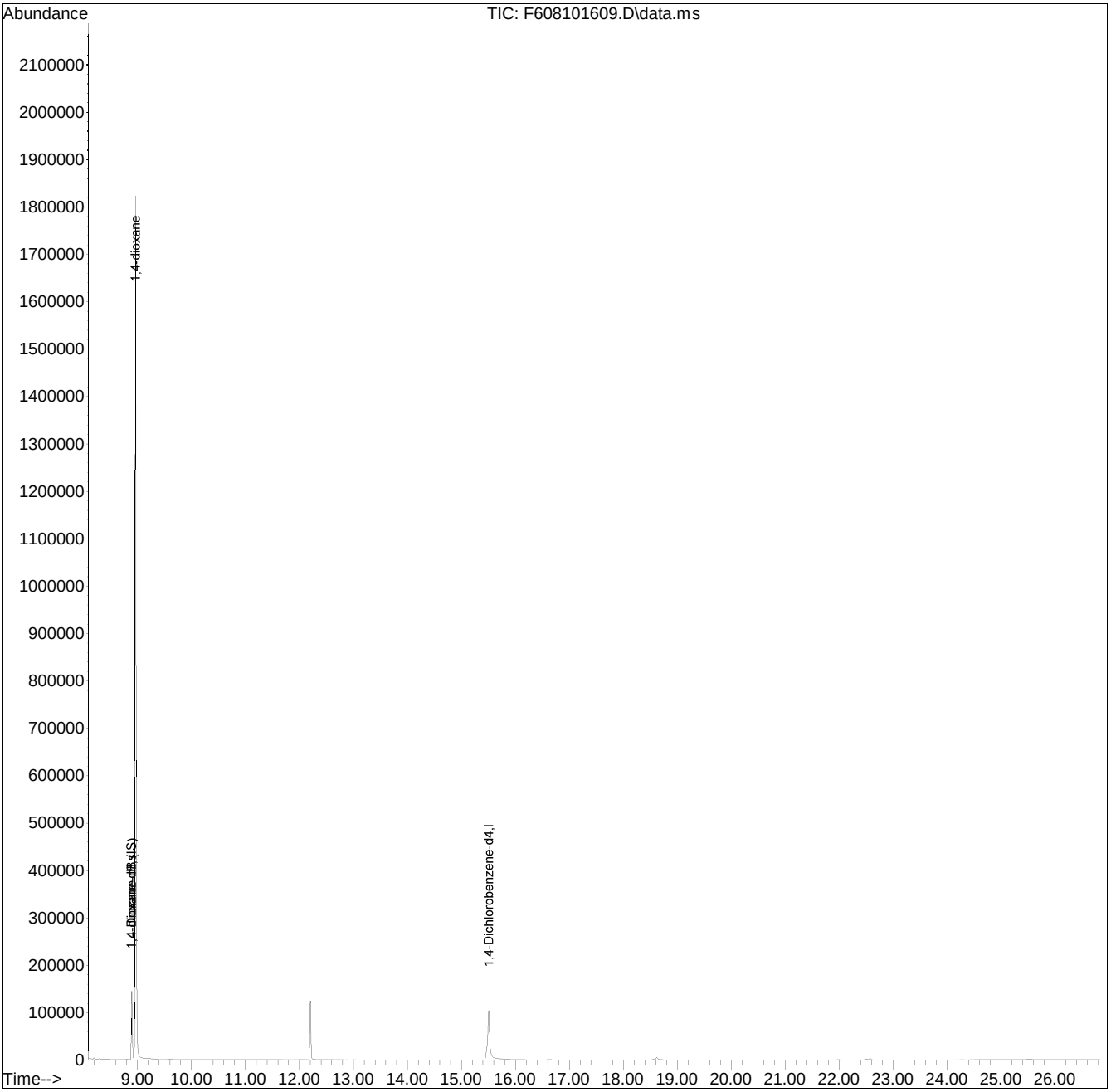
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101609.D
Acq On : 10 Aug 2016 6:06 pm
Operator : BNA6:SF
Sample : I608101606
Misc : WG921943,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 11 12:53:40 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

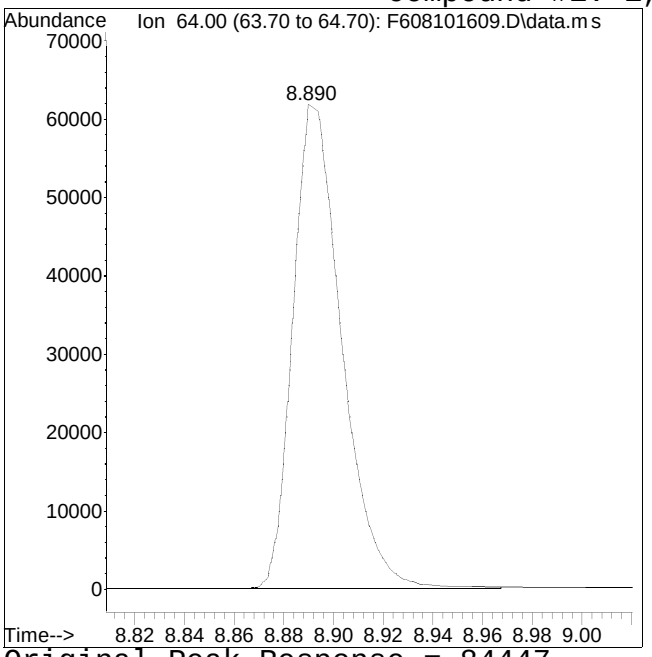
Sub List : Default - All compounds listed



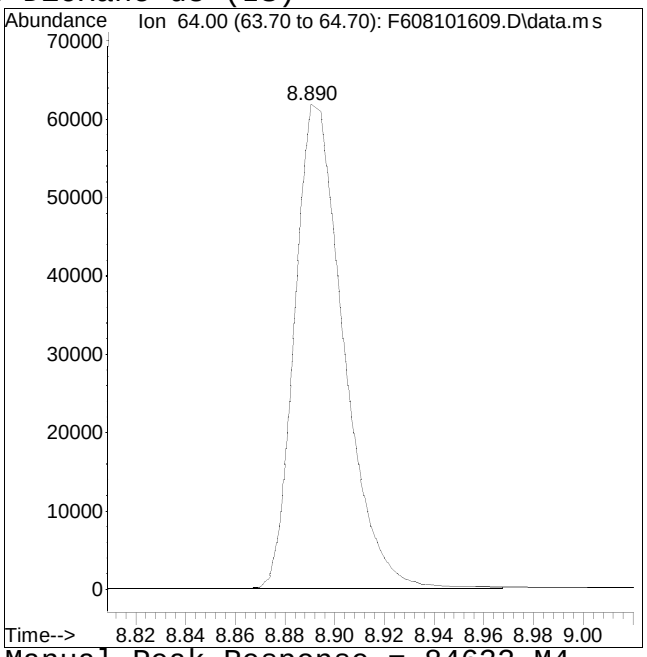
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101609.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 6:06 pm Instrument : BNA6
Sample : I608101606 Quant Date : 8/11/2016 12:53 pm

Compound #1: 1,4-Dioxane-d8 (IS)



Original Peak Response = 84447



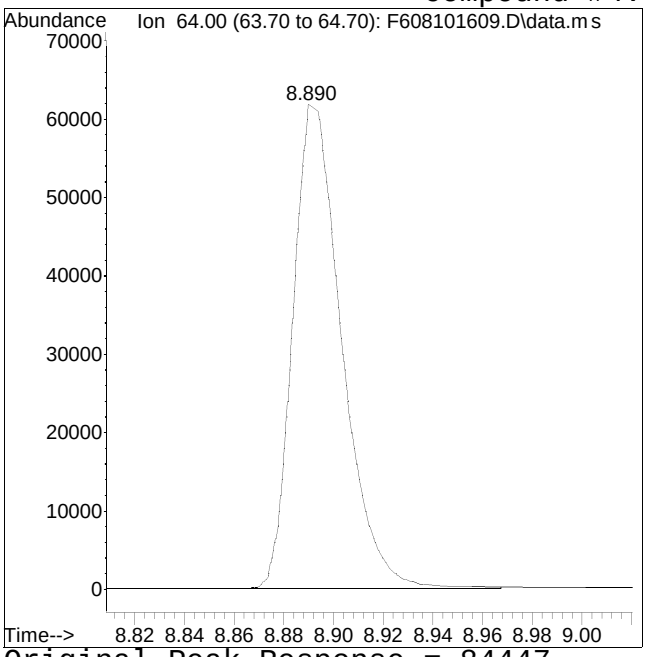
Manual Peak Response = 84632 M4

M4 = Poor automated baseline construction.

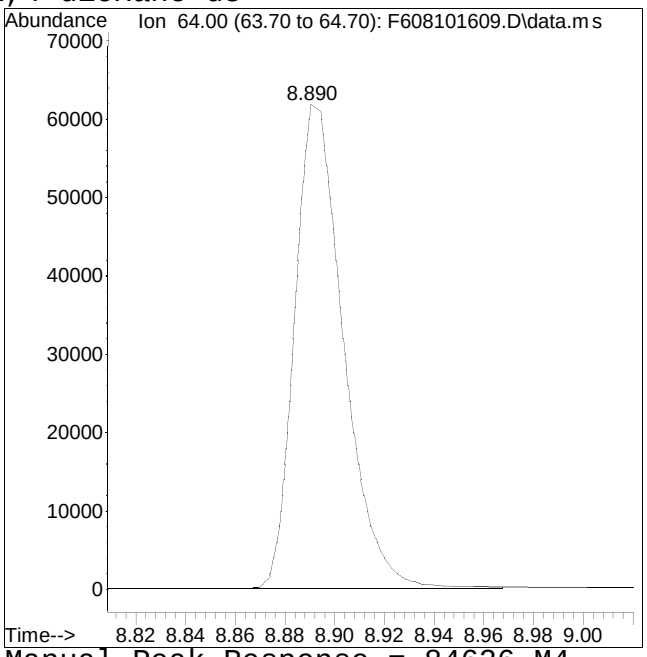
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101609.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 6:06 pm Instrument : BNA6
Sample : I608101606 Quant Date : 8/11/2016 12:53 pm

Compound #4: 1,4-dioxane-d8



Original Peak Response = 84447



Manual Peak Response = 84626 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101610.D
Acq On : 10 Aug 2016 6:51 pm
Operator : BNA6:SF
Sample : I608101607
Misc : WG921943,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 11 12:53:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.882	64	82789	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.503	152	190429	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.882	64	82789	502.329	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 100.47%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	2326389	9804.210	ng/mL	99

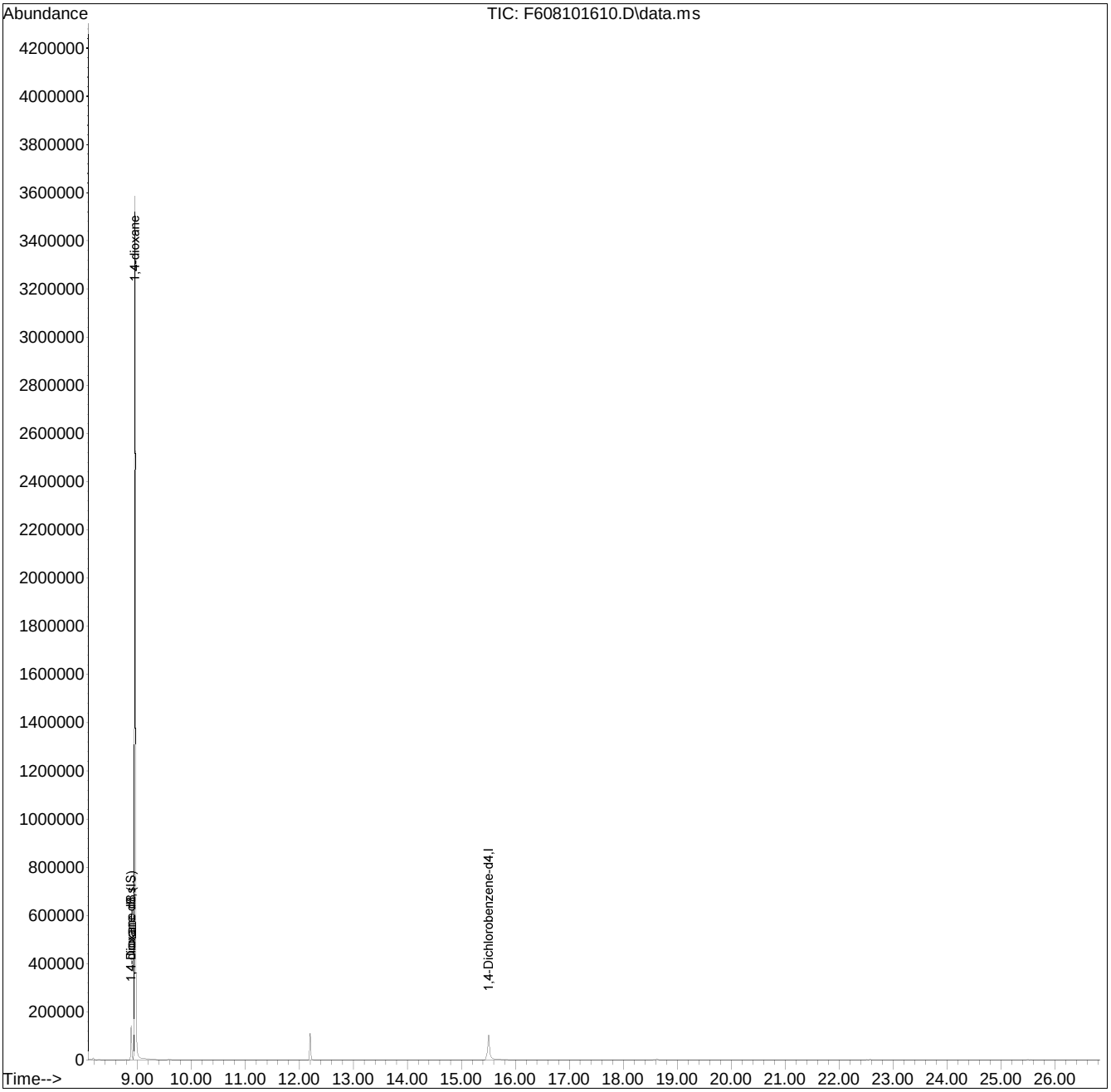
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101610.D
Acq On : 10 Aug 2016 6:51 pm
Operator : BNA6:SF
Sample : I608101607
Misc : WG921943,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 11 12:53:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101610.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 6:51 pm	Instrument	: BNA6
Sample	: I608101607	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	98	0.00
2	1,4-dioxane	1.433	1.360	5.1	91	0.00
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
4 s	1,4-dioxane-d8	0.433	0.442	-2.1	97	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	82343	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	186413	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	82343	510.386	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.08%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.968	88	223932	948.839	ng/mL	99

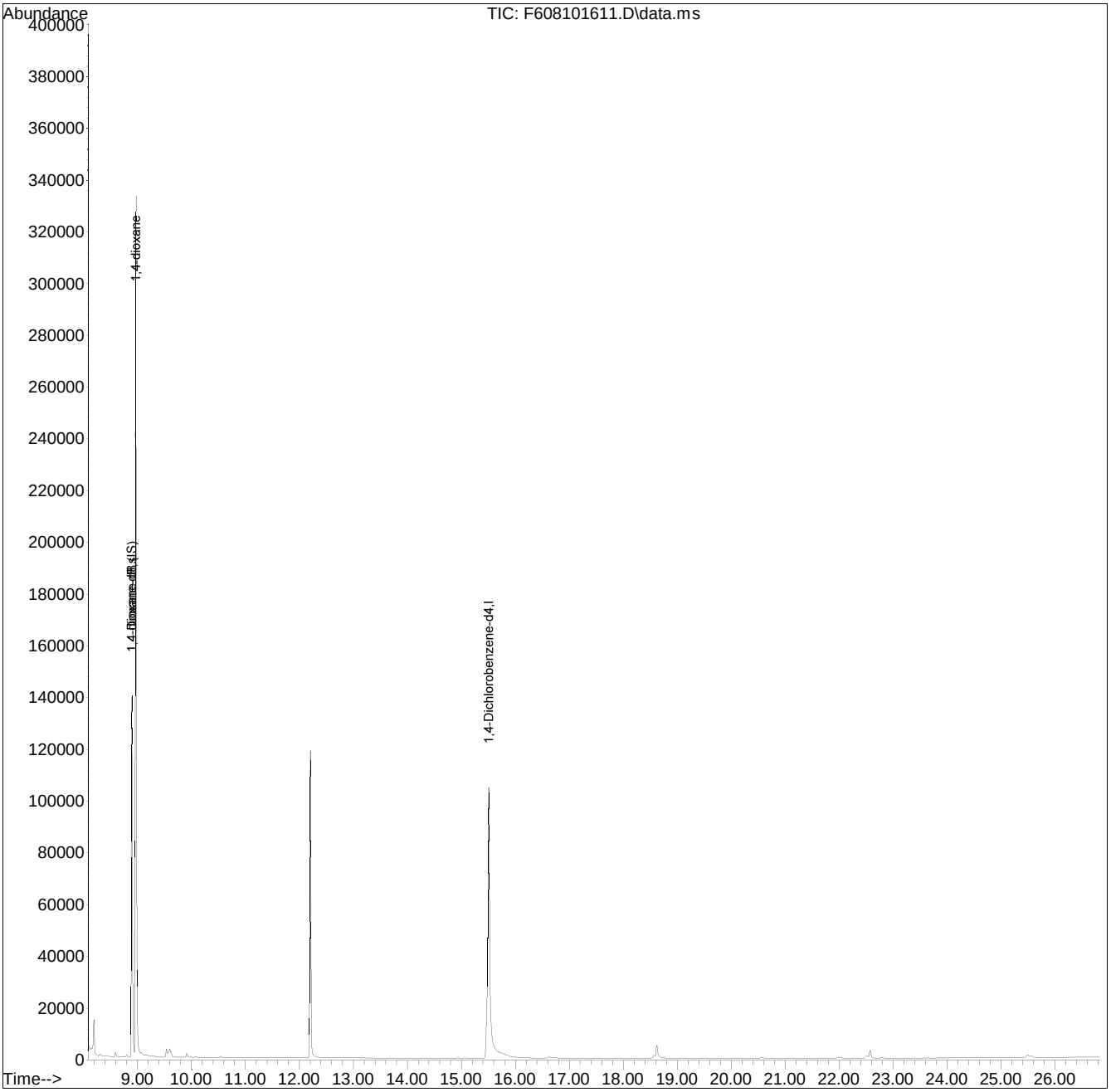
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101611.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 7:36 pm	Instrument	: BNA6
Sample	: CQ608101601	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 20 2016, 03:56 pm

Work Group: WG926422 for Department: 2 Organic Preparation

Created: 26-AUG-16 Due: Operator: ABS

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1626448-01	PMP-POND-082216	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0829	0902	S0	Amber-A.5
L1626448-02	DUP-03-082216	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0829	0902	S0	Amber-A.5
L1626448-03	SW-PAB-02-082216	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0829	0902	S0	Amber-A.5
L1626448-04	SW-PAB-03-082216	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0829	0902	S0	Amber-A.5
L1626448-05	SW-PMB-02-082216	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0829	0902	S0	Amber-A.5
L1626448-06	SW-MRB-01-082216	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0829	0902	S0	Amber-A.5
L1626448-07	SW-NOB-01-082216	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0829	0902	S0	Amber-A.5
L1626448-08	RW-12 (55-65)-082216	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0829	0902	S0	Amber-A.5
L1626448-09	RW-2 (452-462)-08221	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0829	0902	S0	Amber-A.5
L1626448-10	RW-2 (279-289)-08221	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0829	0902	S0	Amber-A.5
L1626448-11	CMP-160-082216	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0829	0902	S0	Amber-A.5
L1626448-12	CMP-100-082216	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0829	0902	S0	Amber-A.5
L1626448-13	CMP-275-082216	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0829	0902	S0	Amber-A.5
L1626448-14	CMP-50-082216	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0829	0902	S0	Amber-A.5
L1626448-15	SW-PMB-01-082316	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0830	0902	S0	Amber-A.5
WG926422-1	Laboratory Method Bl	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG926422-2	Laboratory Control S	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG926422-3	LCS Duplicate	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				

Comments:

WG926422-3 WG926422-2

Sequence Logs

Analysis log File SF 081116

Total Files Reported in Log : 11
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Aug\Aug10\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F608101601.D	14DIOXDFTPPB	TUNE	MSAK38	8/10/2016 11:28 am
2	F608101602.D	14DIOXBNA6.M	CCV	MSAK15	8/10/2016 12:25 pm
3	F608101603.D	14DIOXDFTPPB	T608101601	WG921943,MSAK38	8/10/2016 1:25 pm
4	F608101604.D	14DIOXBNA6.M	I608101601	WG921943,MSAJ77	8/10/2016 2:22 pm
5	F608101605.D	14DIOXBNA6.M	I608101602	WG921943,MSAJ78	8/10/2016 3:07 pm
6	F608101606.D	14DIOXBNA6.M	I608101603	WG921943,MSAJ79	8/10/2016 3:51 pm
7	F608101607.D	14DIOXBNA6.M	I608101604	WG921943,MSAJ80	8/10/2016 4:36 pm
8	F608101608.D	14DIOXBNA6.M	I608101605	WG921943,MSAK15	8/10/2016 5:21 pm
9	F608101609.D	14DIOXBNA6.M	I608101606	WG921943,MSAJ82	8/10/2016 6:06 pm
10	F608101610.D	14DIOXBNA6.M	I608101607	WG921943,MSAJ76	8/10/2016 6:51 pm
11	F608101611.D	14DIOXBNA6.M	CQ608101601	WG921943,MSAJ49	8/10/2016 7:36 pm

Total Files Reported in Log : 40
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Aug\Aug30\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F608301601.D	14DIOXDFTPPB	WG927023-1	WG927023,MSAK38	8/30/2016 9:47 am
2	F608301602.D	14DIOXBNA6.M	WG927023-3	WG927023,MSAK46	8/30/2016 10:42 am
3	F608301603.D	14DIOXBNA6.M	WG926422-1	WG927023,WG926422..	8/30/2016 12:11 pm
4	F608301604.D	14DIOXBNA6.M	WG926422-2	WG927023,WG926422..	8/30/2016 12:54 pm
5	F608301605.D	14DIOXBNA6.M	WG926422-3	WG927023,WG926422..	8/30/2016 1:38 pm
6	F608301606.D	14DIOXBNA6.M	L1626448-01	WG927023,WG926422..	8/30/2016 2:22 pm
7	F608301607.D	14DIOXBNA6.M	L1626448-02	WG927023,WG926422..	8/30/2016 3:06 pm
8	F608301608.D	14DIOXBNA6.M	L1626448-03	WG927023,WG926422..	8/30/2016 3:50 pm
9	F608301609.D	14DIOXBNA6.M	L1626448-04	WG927023,WG926422..	8/30/2016 4:34 pm
10	F608301610.D	14DIOXDFTPPB	WG927023-4	WG927023,MSAK38	8/30/2016 5:14 pm
11	F608301611.D	14DIOXBNA6.M	WG927023-6	WG927023,MSAK46	8/30/2016 6:11 pm
12	F608301612.D	14DIOXBNA6.M	L1626448-05	WG927023,WG926422..	8/30/2016 6:55 pm
13	F608301613.D	14DIOXBNA6.M	L1626448-06	WG927023,WG926422..	8/30/2016 7:39 pm
14	F608301614.D	14DIOXBNA6.M	L1626448-07	WG927023,WG926422..	8/30/2016 8:23 pm
15	F608301615.D	14DIOXBNA6.M	L1626448-08	WG927023,WG926422..	8/30/2016 9:07 pm
16	F608301616.D	14DIOXBNA6.M	L1626448-09	WG927023,WG926422..	8/30/2016 9:51 pm
17	F608301617.D	14DIOXBNA6.M	L1626448-10	WG927023,WG926422..	8/30/2016 10:35 pm
18	F608301618.D	14DIOXBNA6.M	L1626448-11	WG927023,WG926422..	8/30/2016 11:18 pm
19	F608301619.D	14DIOXBNA6.M	L1626448-12	WG927023,WG926422..	8/31/2016 12:02 am
20	F608301620.D	14DIOXBNA6.M	L1626448-13	WG927023,WG926422..	8/31/2016 12:46 am
21	F608301621.D	14DIOXBNA6.M	L1626448-14	WG927023,WG926422..	8/31/2016 1:29 am
22	F608301622.D	14DIOXBNA6.M	L1626448-15	WG927023,WG926422..	8/31/2016 2:13 am
23	F608301623.D	14DIOXDFTPPB	WG927023-7	WG927023,MSAK38	8/31/2016 2:53 am
24	F608301624.D	14DIOXBNA6.M	WG927023-9	WG927023,MSAK46	8/31/2016 3:49 am
25	F608301625.D	14DIOXBNA6.M	WG927347-1	WG927023,WG927347..	8/31/2016 4:33 am
26	F608301626.D	14DIOXBNA6.M	WG927347-2	WG927023,WG927347..	8/31/2016 5:16 am
27	F608301627.D	14DIOXBNA6.M	WG927347-3	WG927023,WG927347..	8/31/2016 6:00 am
28	F608301628.D	14DIOXBNA6.M	L1627045-01	WG927023,WG927347..	8/31/2016 6:43 am
29	F608301629.D	14DIOXBNA6.M	L1627045-02	WG927023,WG927347..	8/31/2016 7:27 am
30	F608301630.D	14DIOXBNA6.M	L1627045-03	WG927023,WG927347..	8/31/2016 8:11 am
31	F608301631.D	14DIOXBNA6.M	L1627045-04	WG927023,WG927347..	8/31/2016 8:55 am
32	F608301632.D	14DIOXBNA6.M	WG927347-4	WG927023,WG927347..	8/31/2016 9:39 am
33	F608301633.D	14DIOXBNA6.M	WG927347-5	WG927023,WG927347..	8/31/2016 10:23 am
34	F608301634.D	14DIOXBNA6.M	L1627045-05	WG927023,WG927347..	8/31/2016 11:07 am
35	F608301635.D	14DIOXBNA6.M	L1627045-06	WG927023,WG927347..	8/31/2016 11:51 am
36	F608301636.D	14DIOXBNA6.M	L1627045-07	WG927023,WG927347..	8/31/2016 12:36 pm
37	F608301637.D	14DIOXDFTPPB	WG927023-10	WG927023,MSAK38	8/31/2016 1:16 pm
38	F608301638.D	14DIOXBNA6.M	WG927023-12	WG927023,MSAK46	8/31/2016 2:13 pm
39	F608301639.D	14DIOXBNA6.M	L1627045-08	WG927023,WG927347..	8/31/2016 2:57 pm
40	F608301640.D	14DIOXBNA6.M	L1627045-09	WG927023,WG927347..	8/31/2016 3:41 pm

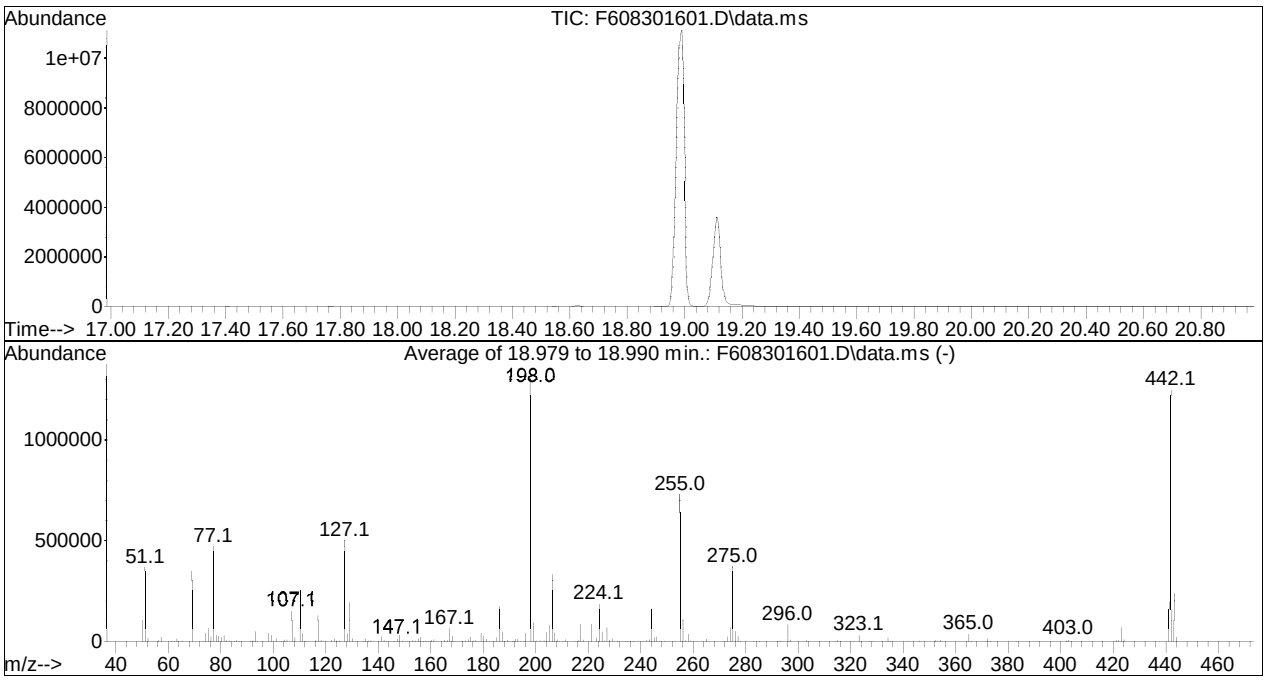
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301601.D
Acq On : 30 Aug 2016 9:47 am
Operator : BNA6:WR
Sample : WG927023-1
Misc : WG927023,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



AutoFind: Scans 1863, 1864, 1865; Background Corrected with Scan 1840

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.0	366351	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	1957	PASS
127	198	10	80	38.2	500587	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1309867	PASS
199	198	5	9	6.8	89525	PASS
275	198	10	60	28.3	370176	PASS
365	198	1	100	2.8	37093	PASS
441	442	0.01	24	15.7	195456	PASS
442	198	50	100	95.2	1246997	PASS
443	442	15	24	18.9	236011	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301602.D
Acq On : 30 Aug 2016 10:42 am
Operator : BNA6:WR
Sample : WG927023-3
Misc : WG927023,MSAK46
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 30 12:00:59 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	84	-0.06
2	1,4-dioxane	1.433	1.430	0.2	82	-0.06
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	90	-0.09
4 s	1,4-dioxane-d8	0.433	0.391	9.7	83	-0.06

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301602.D
Acq On : 30 Aug 2016 10:42 am
Operator : BNA6:WR
Sample : WG927023-3
Misc : WG927023,MSAK46
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 30 12:00:59 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.833	64	70566	500.000	ng/mL	-0.06
3) 1,4-Dichlorobenzene-d4	15.418	152	180519	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.833	64	70566	451.670	ng/mL	-0.06
Spiked Amount 500.000	Range 15 - 115		Recovery = 90.33%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.906	88	201756	997.548	ng/mL	99

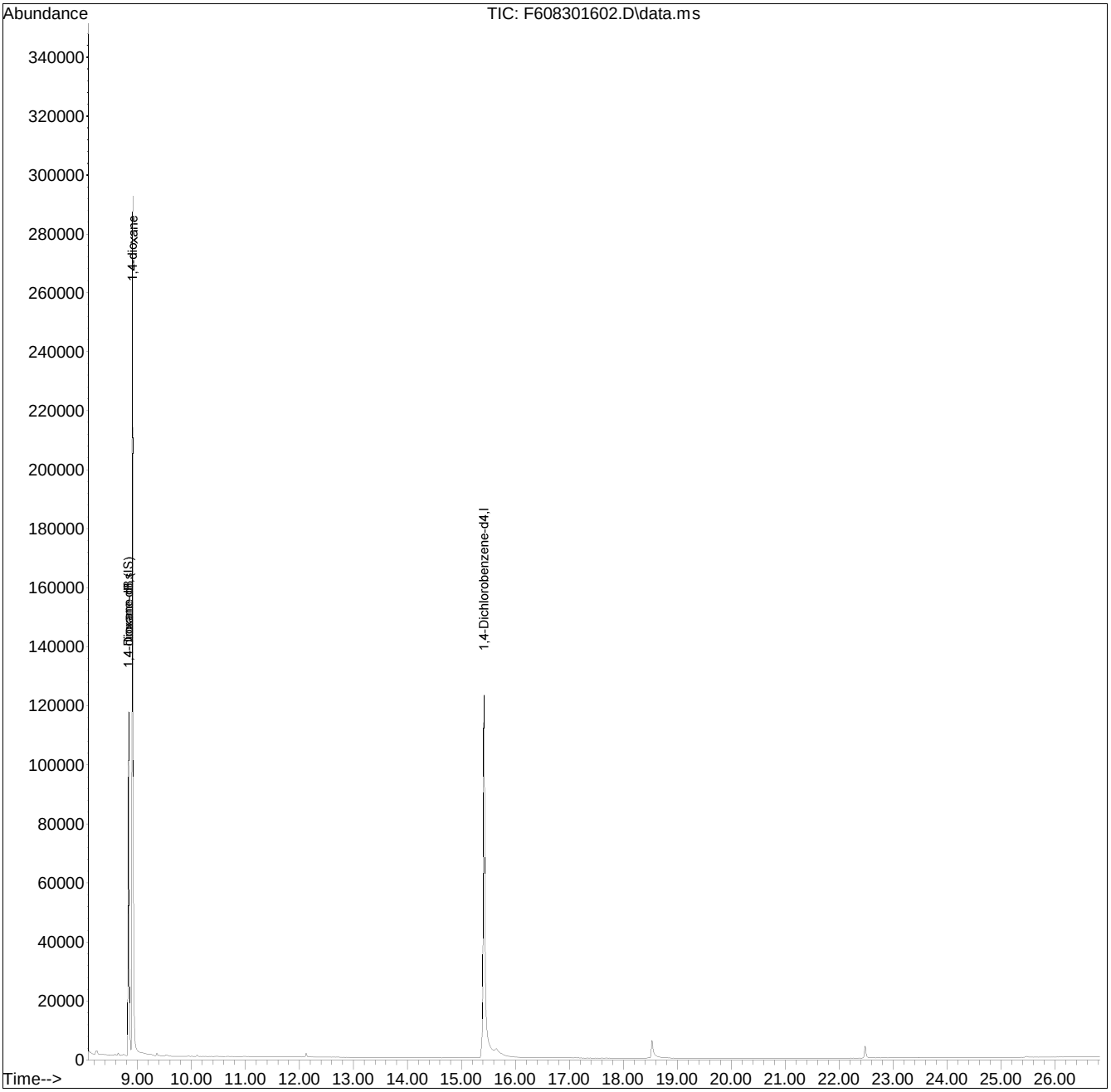
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301602.D
Acq On : 30 Aug 2016 10:42 am
Operator : BNA6:WR
Sample : WG927023-3
Misc : WG927023,MSAK46
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 30 12:00:59 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301606.D
Acq On : 30 Aug 2016 2:22 pm
Operator : BNA6:WR
Sample : L1626448-01
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 31 13:47:56 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.870	64	17161	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	171207	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.870	64	17161	115.816	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.16%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.955	88	205M4	4.168	ng/mL	

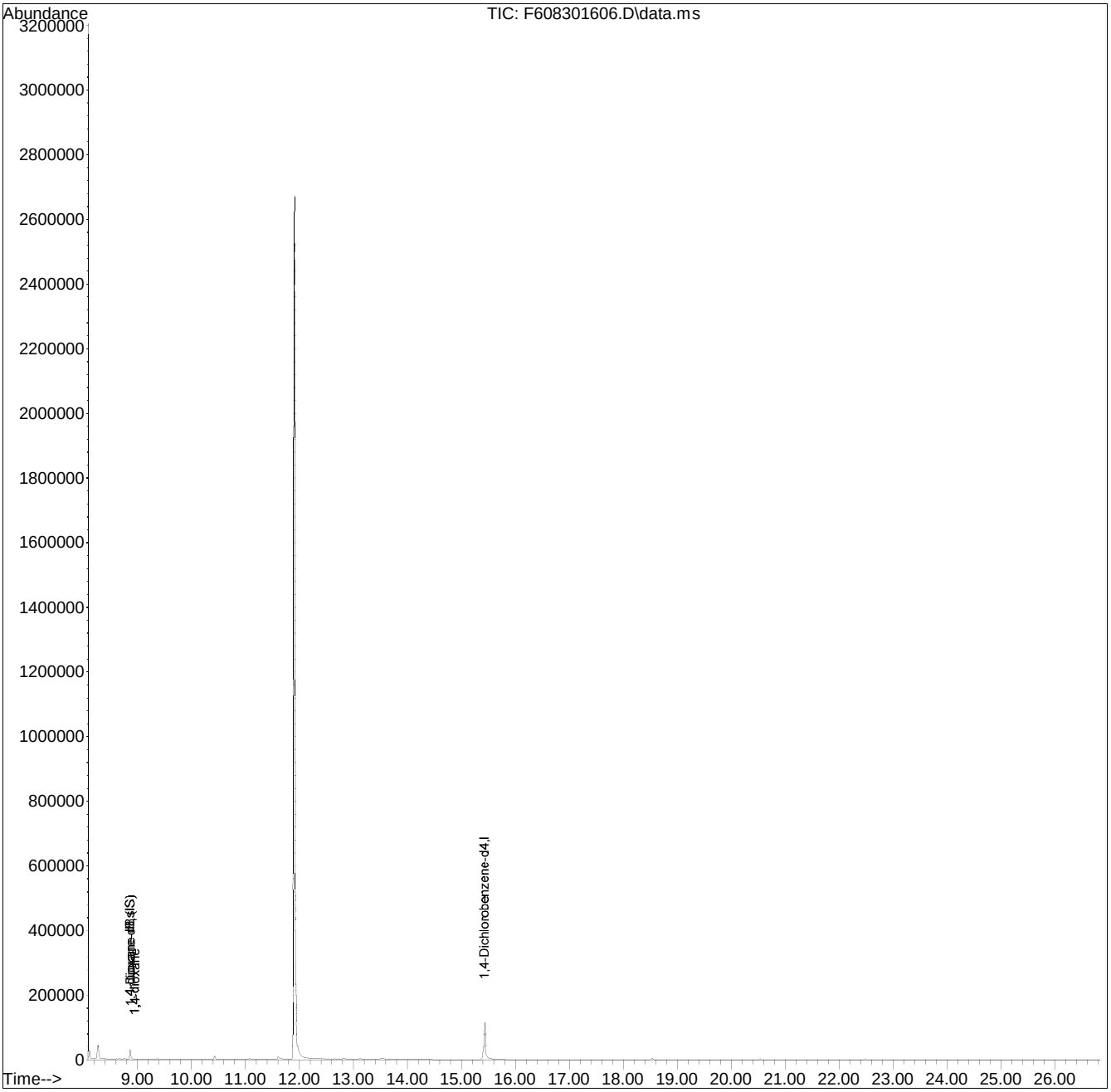
(#) = qualifier out of range (m) = manual integration (+) = signals summed

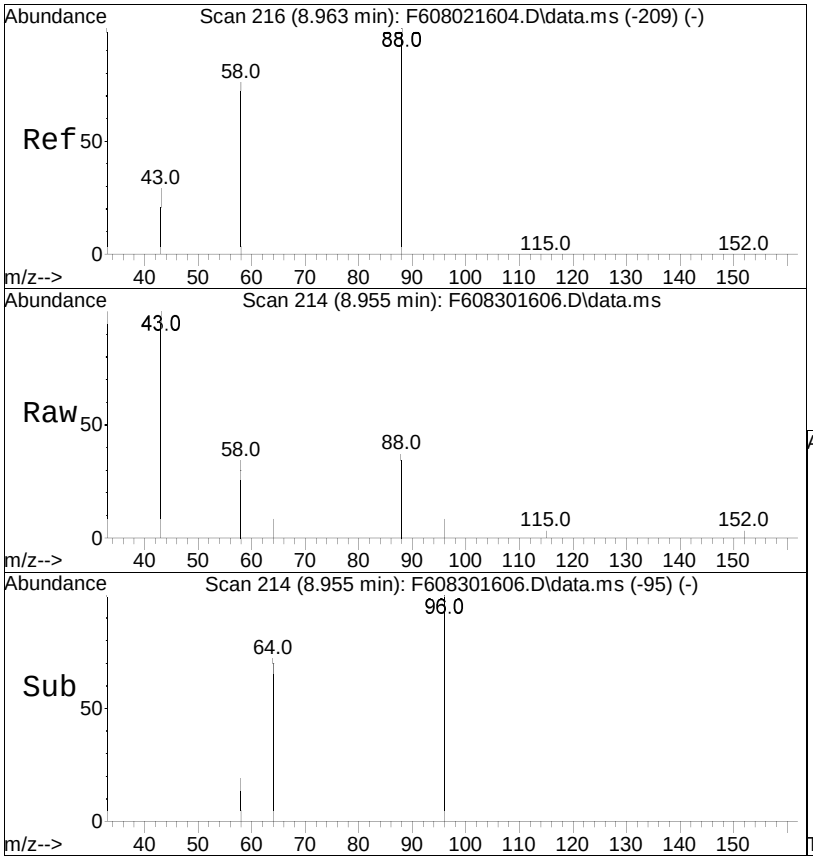
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301606.D
Acq On : 30 Aug 2016 2:22 pm
Operator : BNA6:WR
Sample : L1626448-01
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 31 13:47:56 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

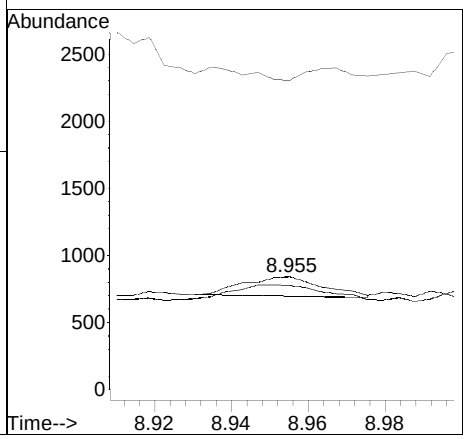




#2
1,4-dioxane
Concen: 4.17 ng/mL M4
RT: 8.955 min Scan# 214
Delta R.T. -0.016 min
Lab File: F608301606.D
Acq: 30 Aug 2016 2:22 pm

Tgt Ion: 88 Resp: 205

Ion	Ratio	Lower	Upper
88	100		
58	108.3	62.1	93.1#
43	0.0	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301607.D
Acq On : 30 Aug 2016 3:06 pm
Operator : BNA6:WR
Sample : L1626448-02
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 31 13:52:04 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.886	64	17180	500.000	ng/mL	-0.01
3) 1,4-Dichlorobenzene-d4	15.426	152	174846M4	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.886	64	17180	113.531	ng/mL	-0.01
Spiked Amount 500.000	Range 15 - 115		Recovery = 22.71%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.967	88	307M4	6.235	ng/mL	

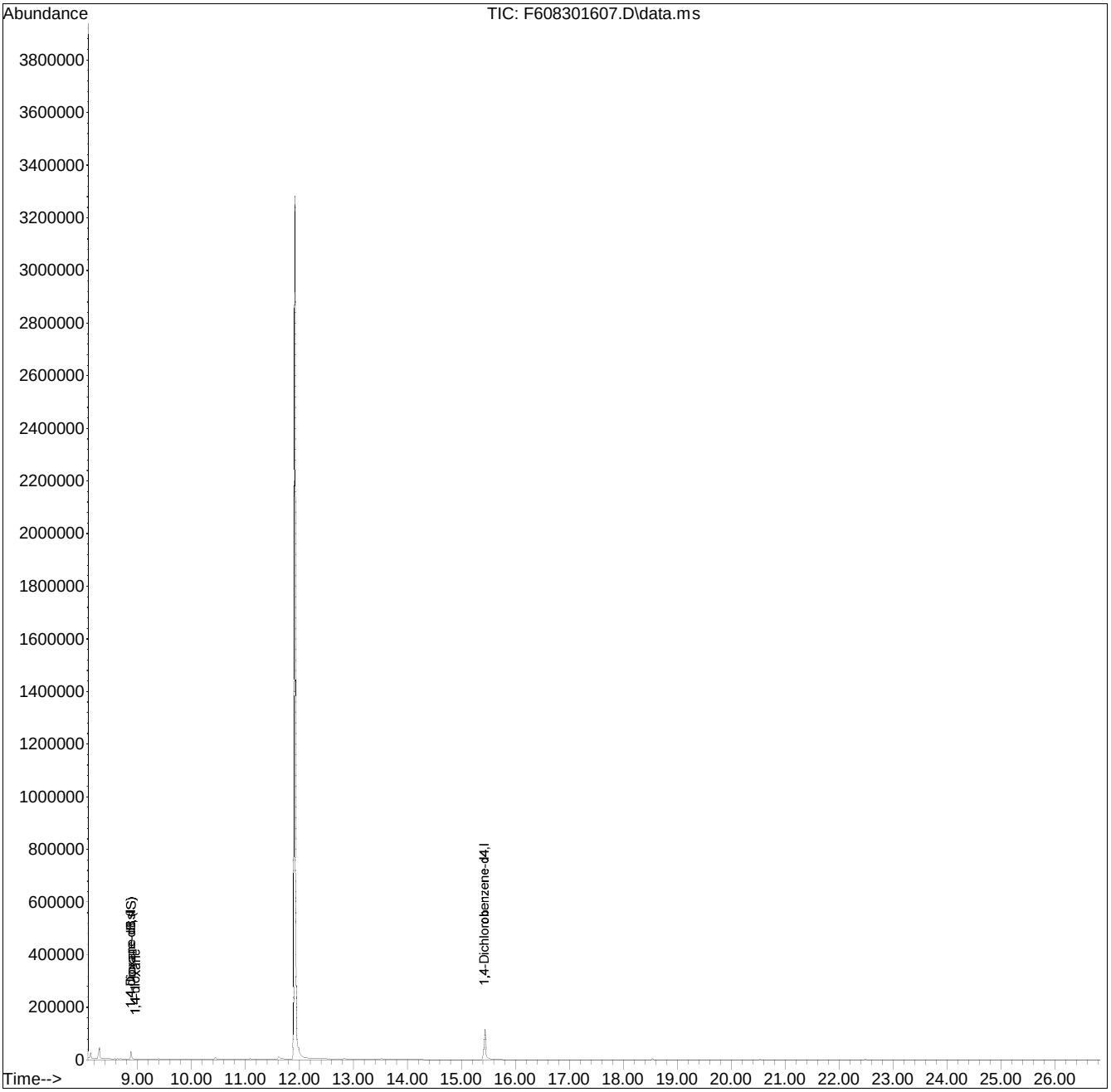
(#) = qualifier out of range (m) = manual integration (+) = signals summed

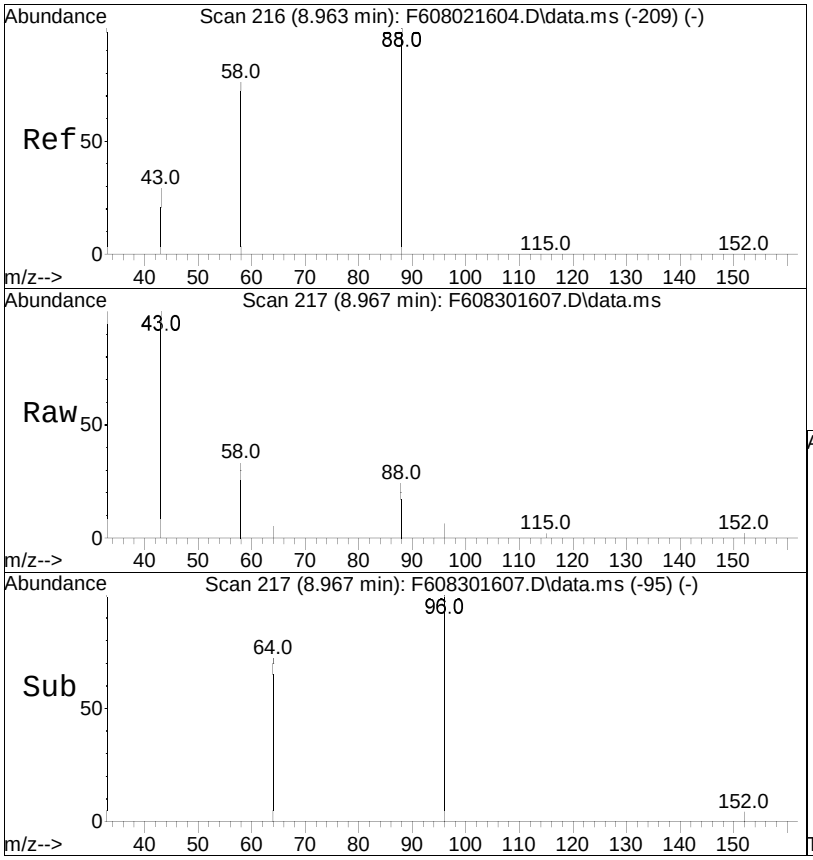
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301607.D
Acq On : 30 Aug 2016 3:06 pm
Operator : BNA6:WR
Sample : L1626448-02
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 31 13:52:04 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

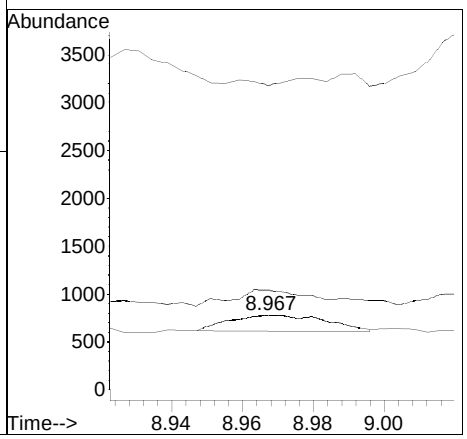




#2
1,4-dioxane
Concen: 6.23 ng/mL M4
RT: 8.967 min Scan# 217
Delta R.T. -0.004 min
Lab File: F608301607.D
Acq: 30 Aug 2016 3:06 pm

Tgt Ion: 88 Resp: 307

Ion	Ratio	Lower	Upper
88	100		
58	47.2	62.1	93.1#
43	16.3	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301608.D
Acq On : 30 Aug 2016 3:50 pm
Operator : BNA6:WR
Sample : L1626448-03
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 31 13:51:28 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.845	64	15703	500.000	ng/mL	-0.05
3) 1,4-Dichlorobenzene-d4	15.422	152	161848M4	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.845	64	15703	112.105	ng/mL	-0.05
Spiked Amount 500.000	Range 15 - 115		Recovery = 22.42%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.927	88	5524M4	122.737	ng/mL	

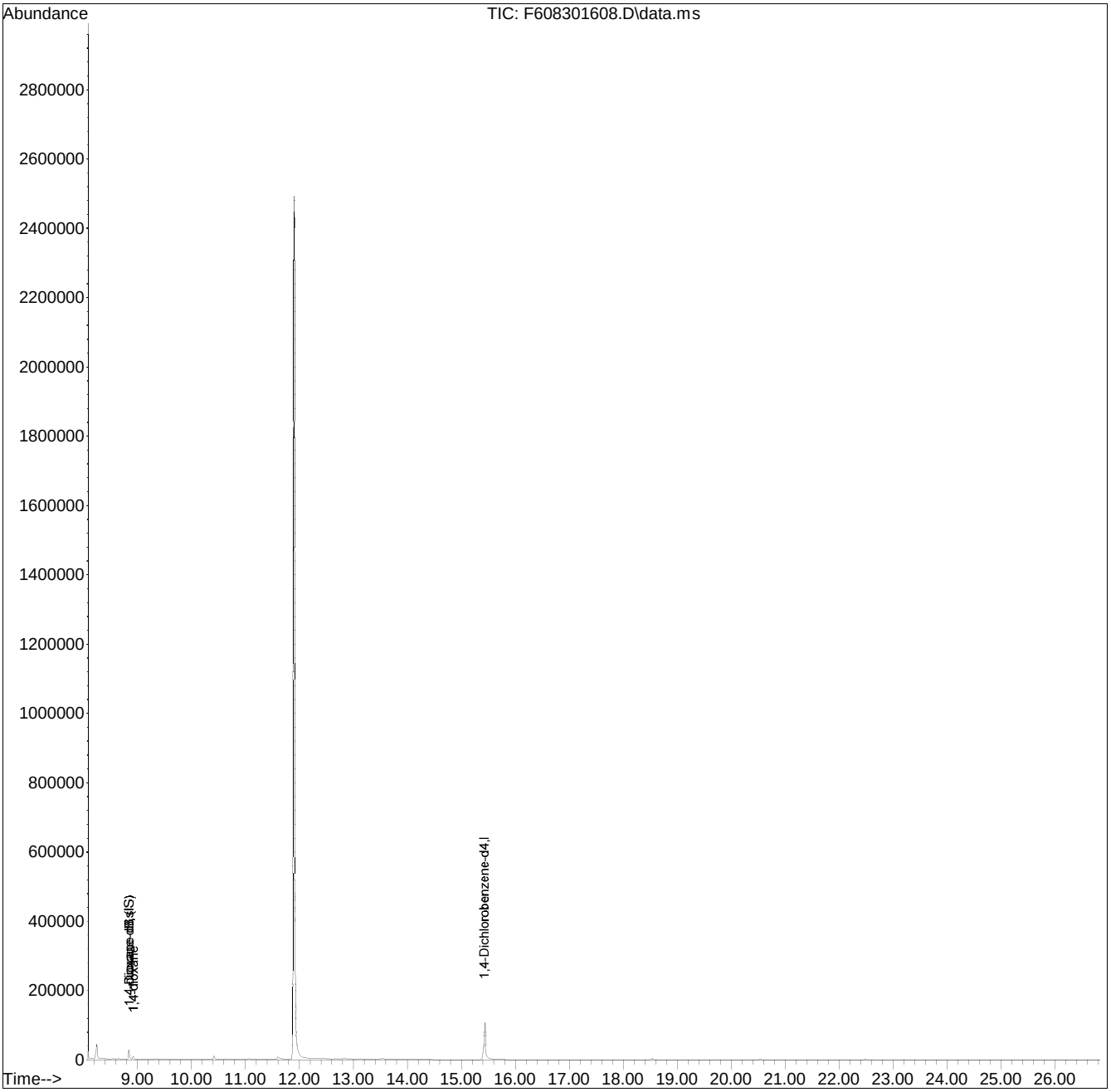
(#) = qualifier out of range (m) = manual integration (+) = signals summed

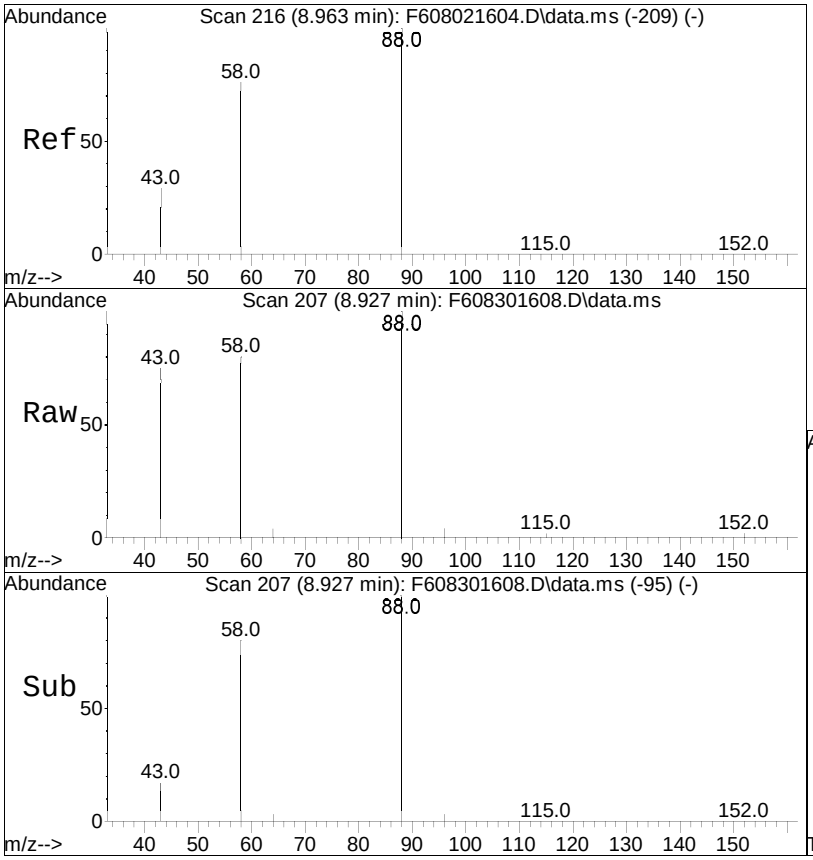
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301608.D
Acq On : 30 Aug 2016 3:50 pm
Operator : BNA6:WR
Sample : L1626448-03
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 31 13:51:28 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

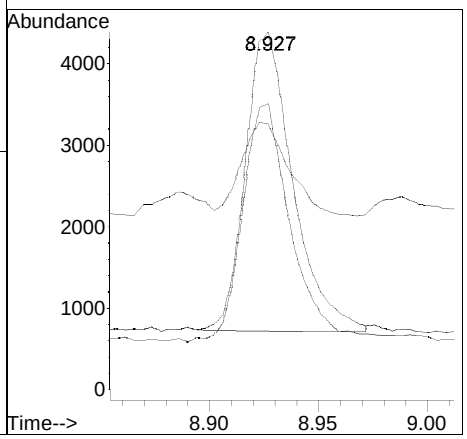




#2
1,4-dioxane
Concen: 122.74 ng/mL M4
RT: 8.927 min Scan# 207
Delta R.T. -0.045 min
Lab File: F608301608.D
Acq: 30 Aug 2016 3:50 pm

Tgt Ion: 88 Resp: 5524

Ion	Ratio	Lower	Upper
88	100		
58	83.0	62.1	93.1
43	31.5	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301609.D
Acq On : 30 Aug 2016 4:34 pm
Operator : BNA6:WR
Sample : L1626448-04
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 31 13:51:01 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.882	64	16456	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.422	152	160241M4	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.882	64	16456	118.659	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.73%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.963	88	2127M4	45.097	ng/mL	

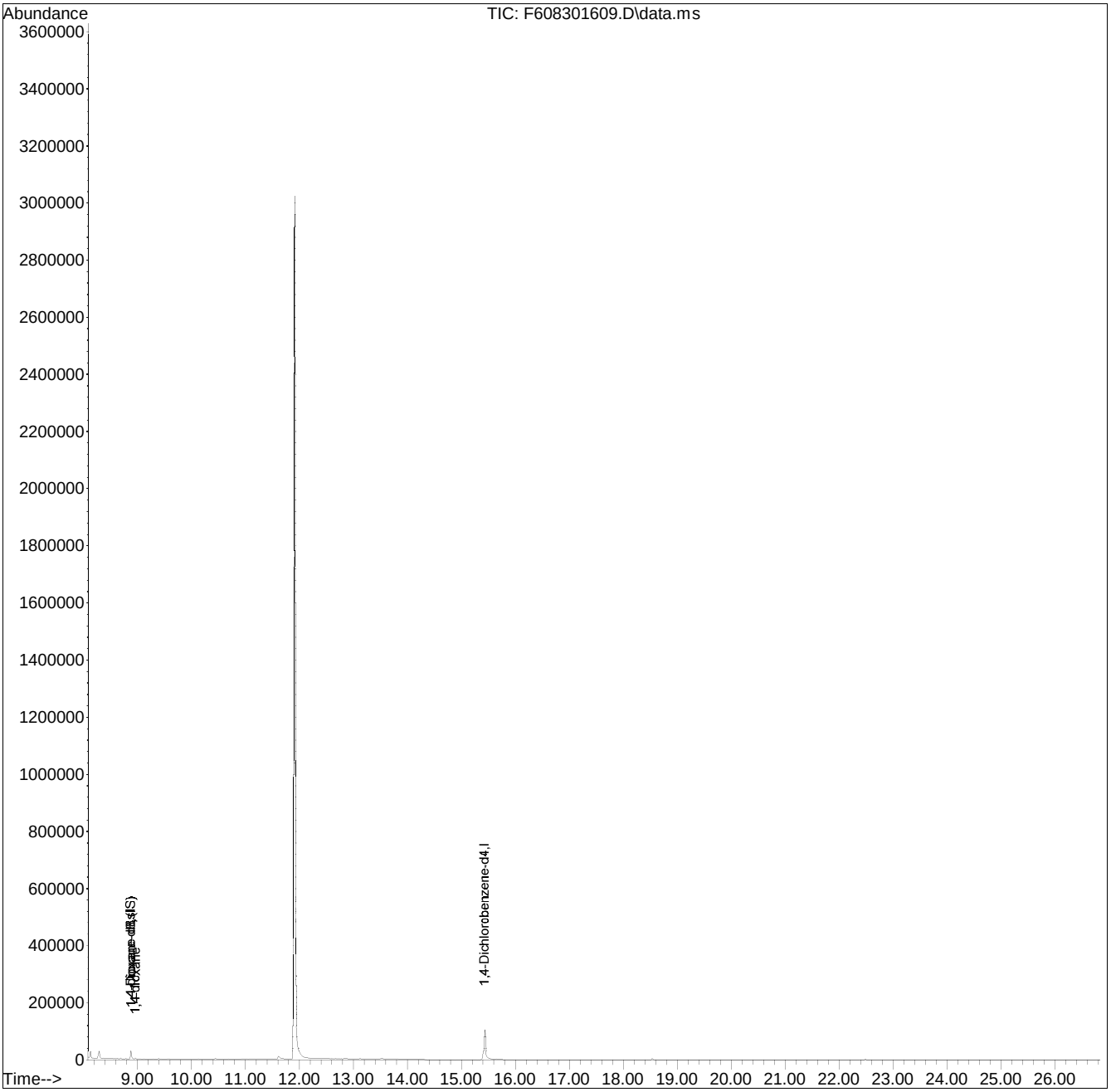
(#) = qualifier out of range (m) = manual integration (+) = signals summed

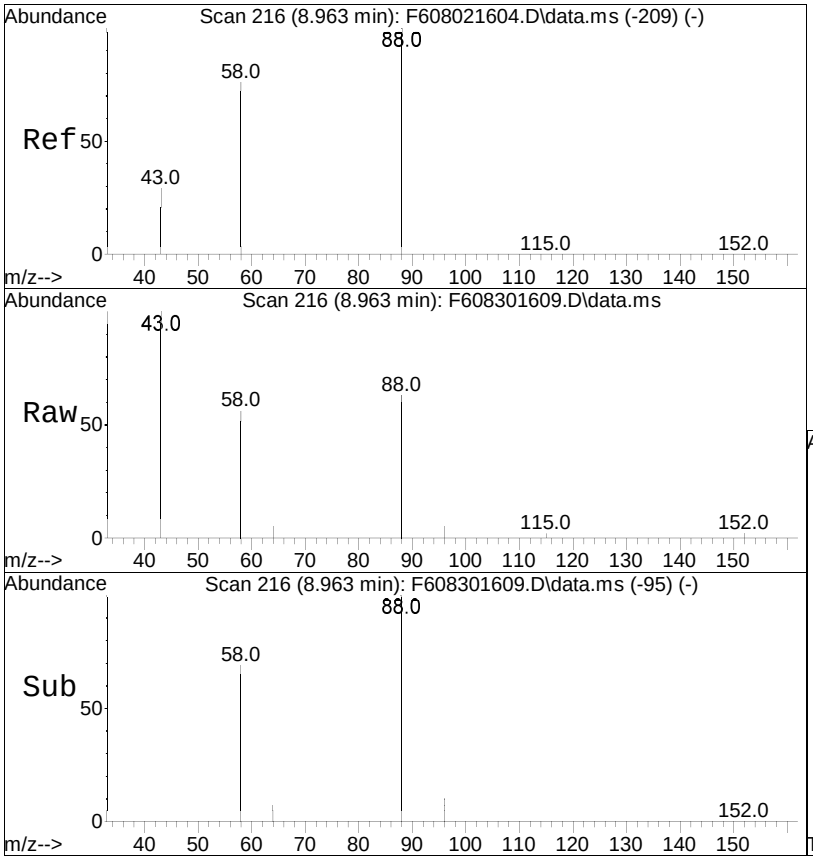
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301609.D
Acq On : 30 Aug 2016 4:34 pm
Operator : BNA6:WR
Sample : L1626448-04
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 31 13:51:01 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

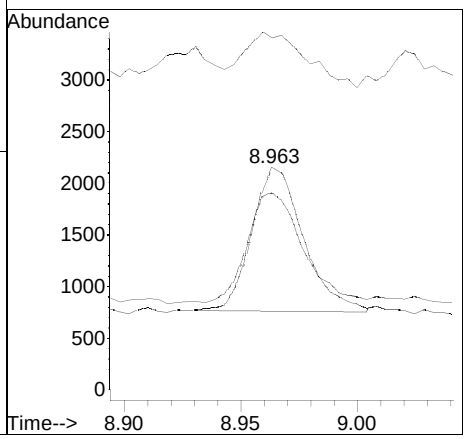




#2
1,4-dioxane
Concen: 45.10 ng/mL M4
RT: 8.963 min Scan# 216
Delta R.T. -0.008 min
Lab File: F608301609.D
Acq: 30 Aug 2016 4:34 pm

Tgt Ion: 88 Resp: 2127

Ion	Ratio	Lower	Upper
88	100		
58	81.8	62.1	93.1
43	45.5	24.4	36.6#



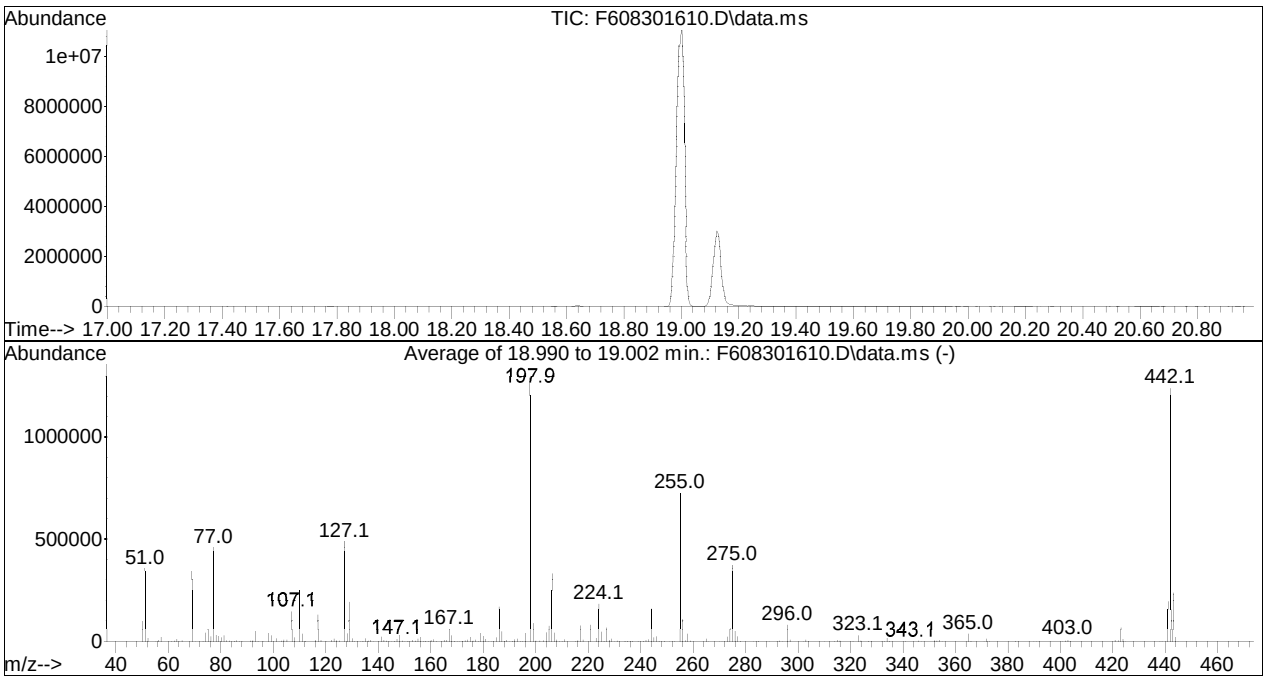
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301610.D
Acq On : 30 Aug 2016 5:14 pm
Operator : BNA6:WR
Sample : WG927023-4
Misc : WG927023,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



AutoFind: Scans 1865, 1866, 1867; Background Corrected with Scan 1854

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	27.7	356978	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	1958	PASS
127	198	10	80	37.6	484885	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1289660	PASS
199	198	5	9	6.8	87840	PASS
275	198	10	60	28.8	371947	PASS
365	198	1	100	2.9	36821	PASS
441	442	0.01	24	15.6	192875	PASS
442	198	50	100	96.1	1238720	PASS
443	442	15	24	19.2	237611	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301611.D
Acq On : 30 Aug 2016 6:11 pm
Operator : BNA6:WR
Sample : WG927023-6
Misc : WG927023,MSAK46
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 31 13:31:29 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	84	-0.06
2	1,4-dioxane	1.433	1.430	0.2	82	-0.06
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	-0.09
4 s	1,4-dioxane-d8	0.433	0.380	12.2	83	-0.06

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301611.D
Acq On : 30 Aug 2016 6:11 pm
Operator : BNA6:WR
Sample : WG927023-6
Misc : WG927023,MSAK46
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 31 13:31:29 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.837	64	70227	500.000	ng/mL	-0.06
3) 1,4-Dichlorobenzene-d4	15.422	152	184642	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.837	64	70227	439.463	ng/mL	-0.06
Spiked Amount 500.000	Range 15 - 115		Recovery = 87.89%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.911	88	200788	997.554	ng/mL	99

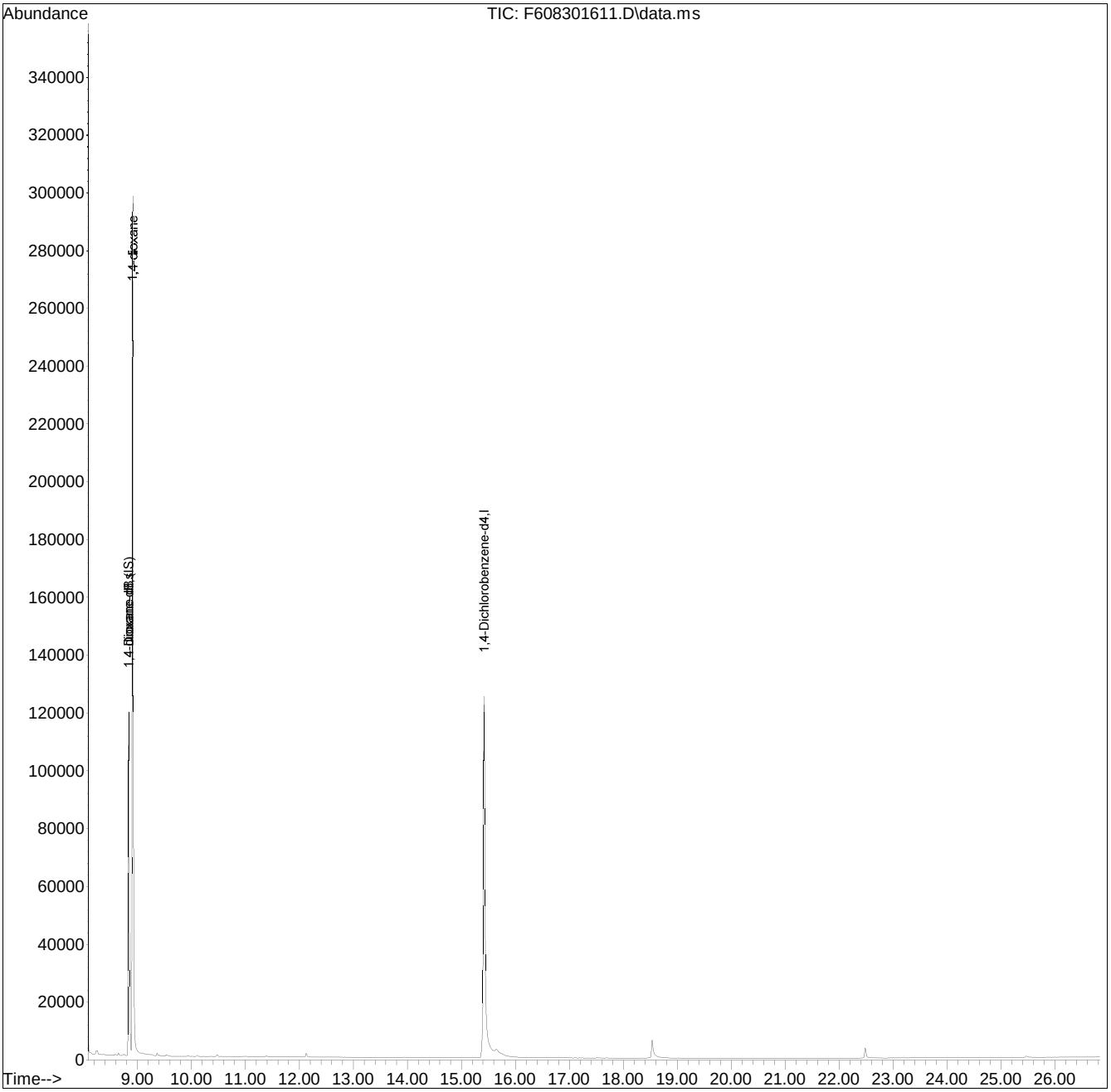
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301611.D
Acq On : 30 Aug 2016 6:11 pm
Operator : BNA6:WR
Sample : WG927023-6
Misc : WG927023,MSAK46
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 31 13:31:29 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301612.D
Acq On : 30 Aug 2016 6:55 pm
Operator : BNA6:WR
Sample : L1626448-05
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 31 13:55:08 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.870	64	16093	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	173138M4	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.870	64	16093	107.397	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 21.48%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

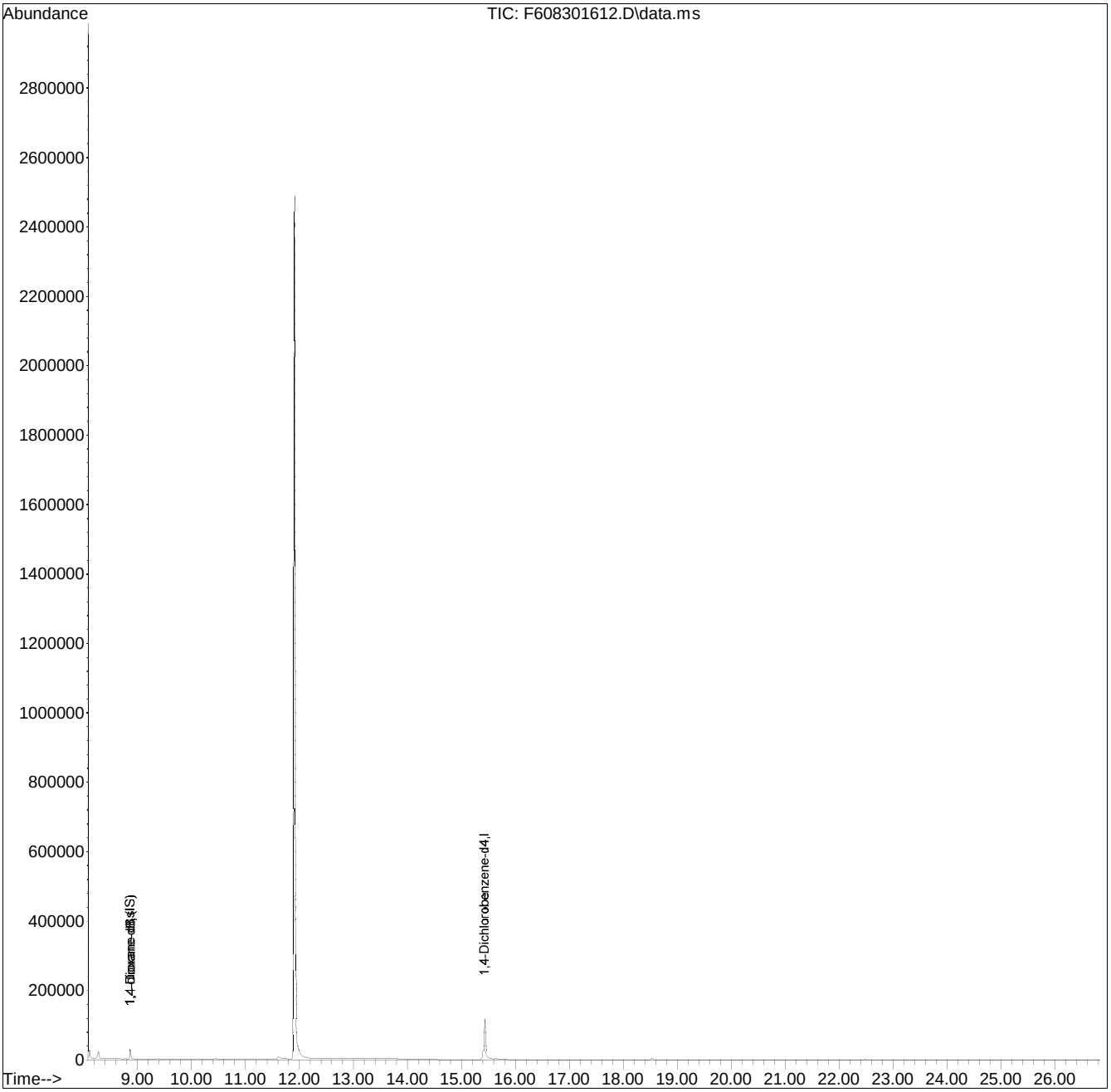
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301612.D
Acq On : 30 Aug 2016 6:55 pm
Operator : BNA6:WR
Sample : L1626448-05
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 31 13:55:08 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301613.D
Acq On : 30 Aug 2016 7:39 pm
Operator : BNA6:WR
Sample : L1626448-06
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 31 13:55:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.857	64	15556	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	162401	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.857	64	15556	110.677	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 22.14%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

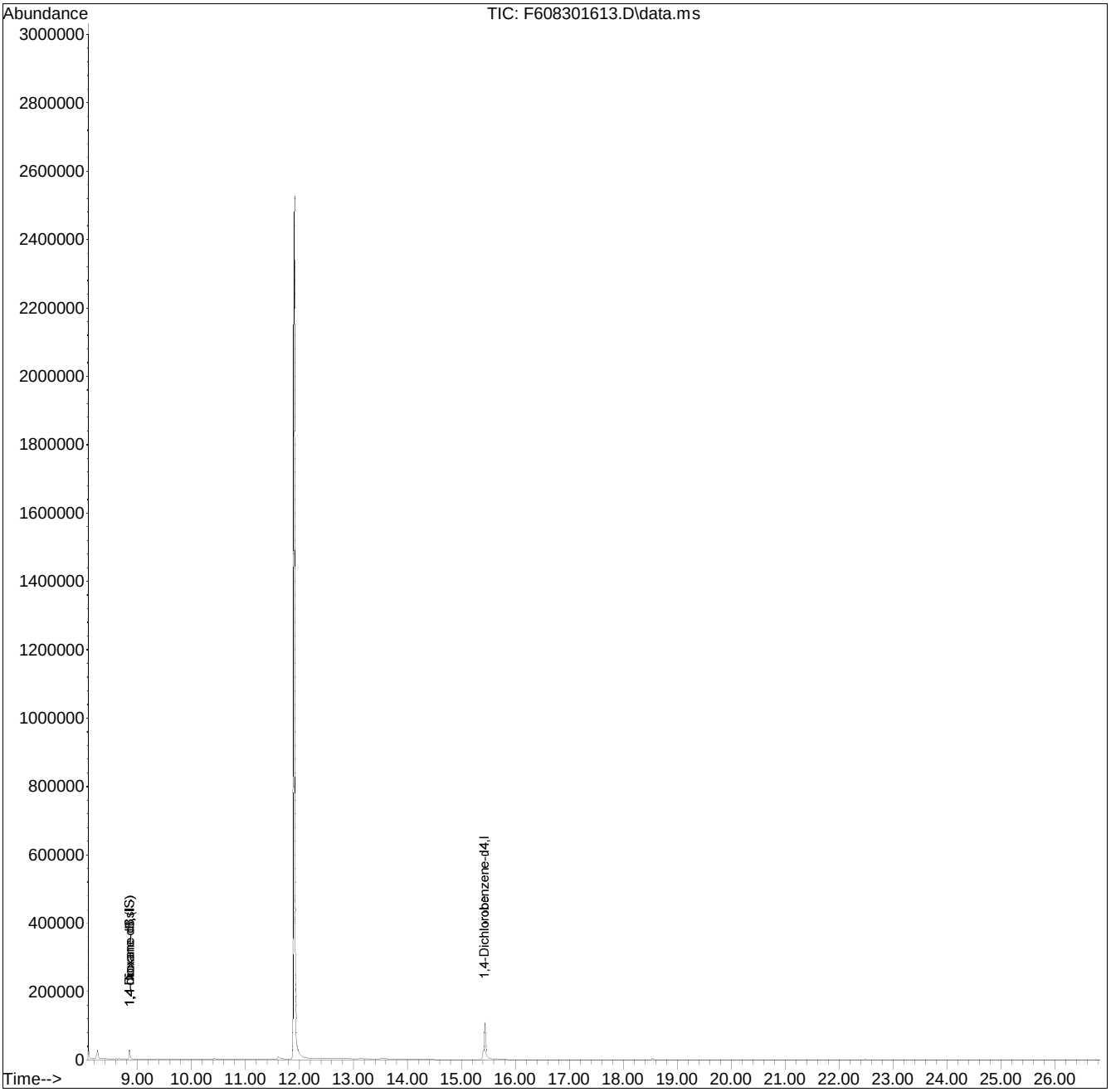
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301613.D
Acq On : 30 Aug 2016 7:39 pm
Operator : BNA6:WR
Sample : L1626448-06
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 31 13:55:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301614.D
Acq On : 30 Aug 2016 8:23 pm
Operator : BNA6:WR
Sample : L1626448-07
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 31 13:55:58 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.862	64	18425	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	164023	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.862	64	18425	129.793	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.96%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

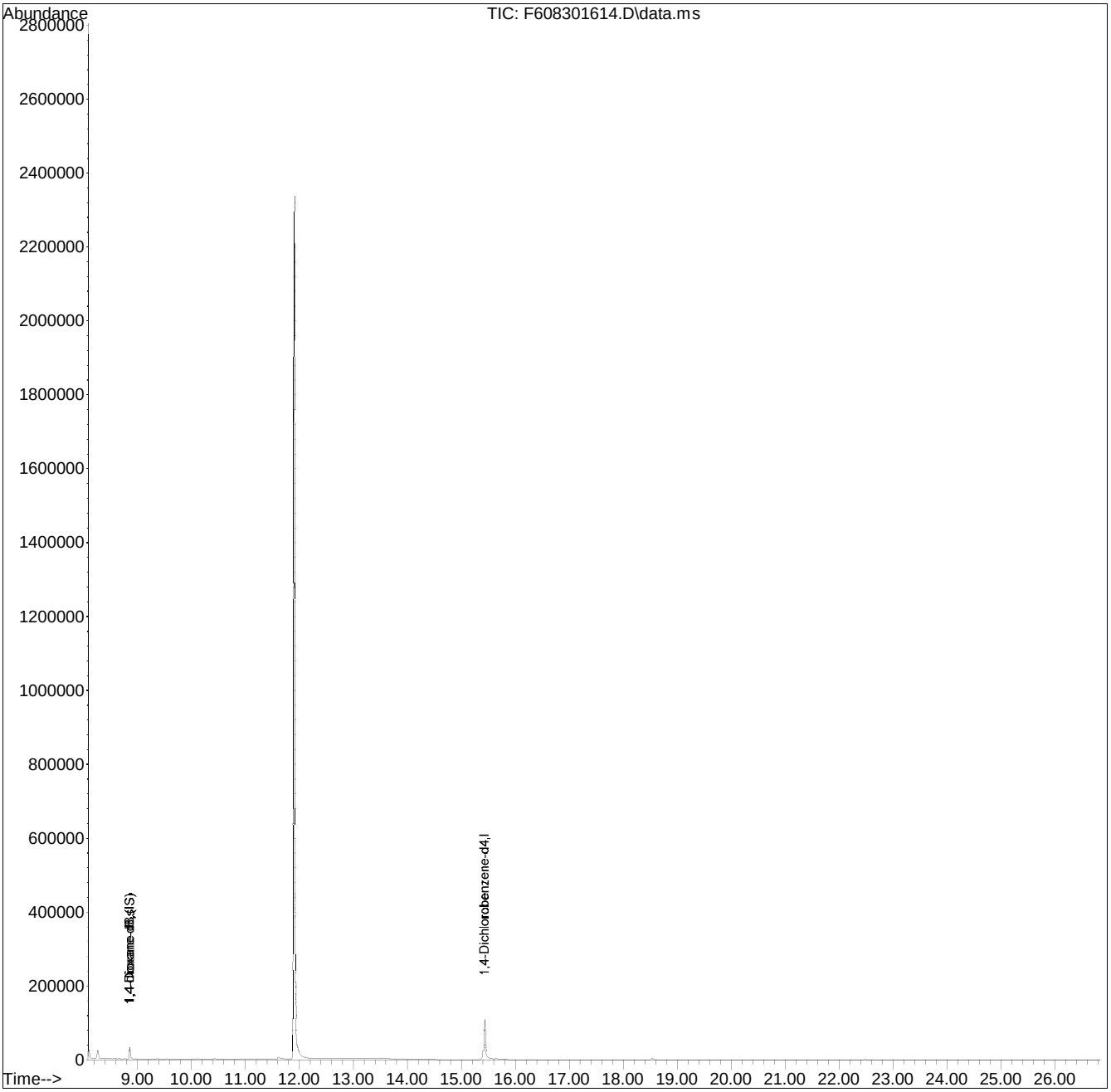
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301614.D
Acq On : 30 Aug 2016 8:23 pm
Operator : BNA6:WR
Sample : L1626448-07
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 31 13:55:58 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301615.D
Acq On : 30 Aug 2016 9:07 pm
Operator : BNA6:WR
Sample : L1626448-08
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 31 14:00:07 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	18034	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.422	152	188663	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	18034	110.447	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 22.09%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

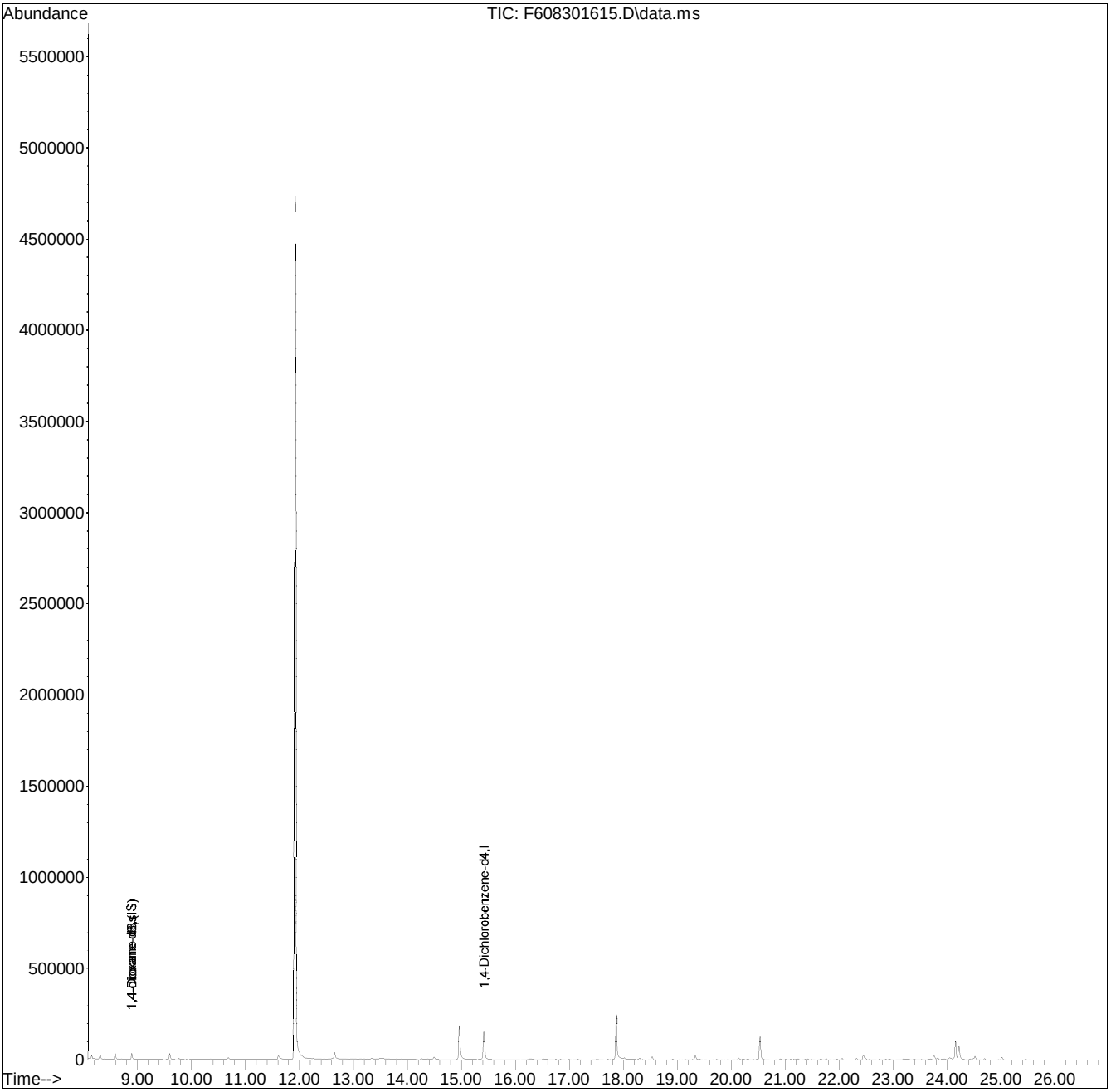
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301615.D
Acq On : 30 Aug 2016 9:07 pm
Operator : BNA6:WR
Sample : L1626448-08
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 31 14:00:07 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301616.D
Acq On : 30 Aug 2016 9:51 pm
Operator : BNA6:WR
Sample : L1626448-09
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 31 14:01:11 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.870	64	20587	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	187078	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.870	64	20587	127.151	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.43%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	4359M4	73.875	ng/mL	

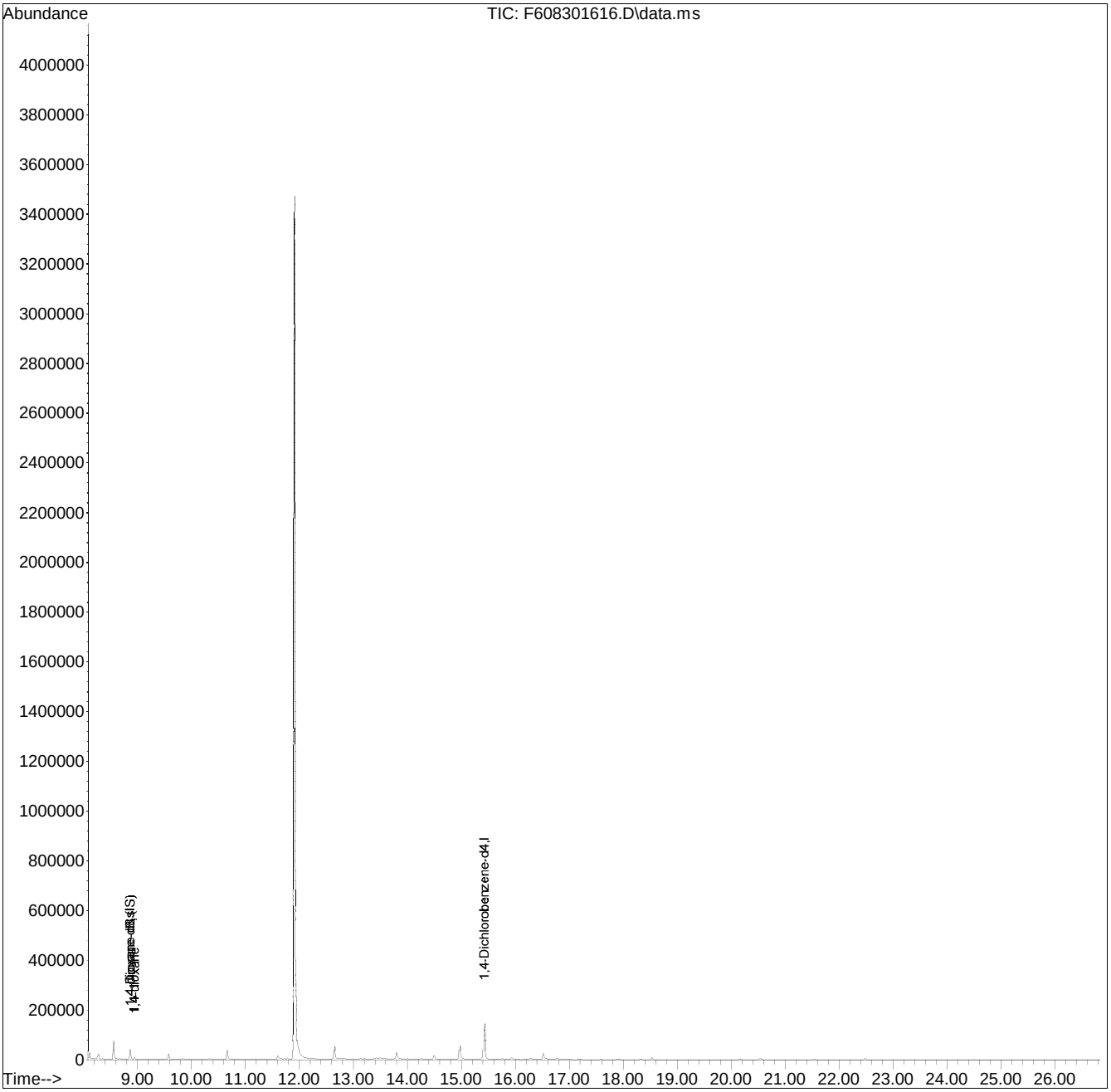
(#) = qualifier out of range (m) = manual integration (+) = signals summed

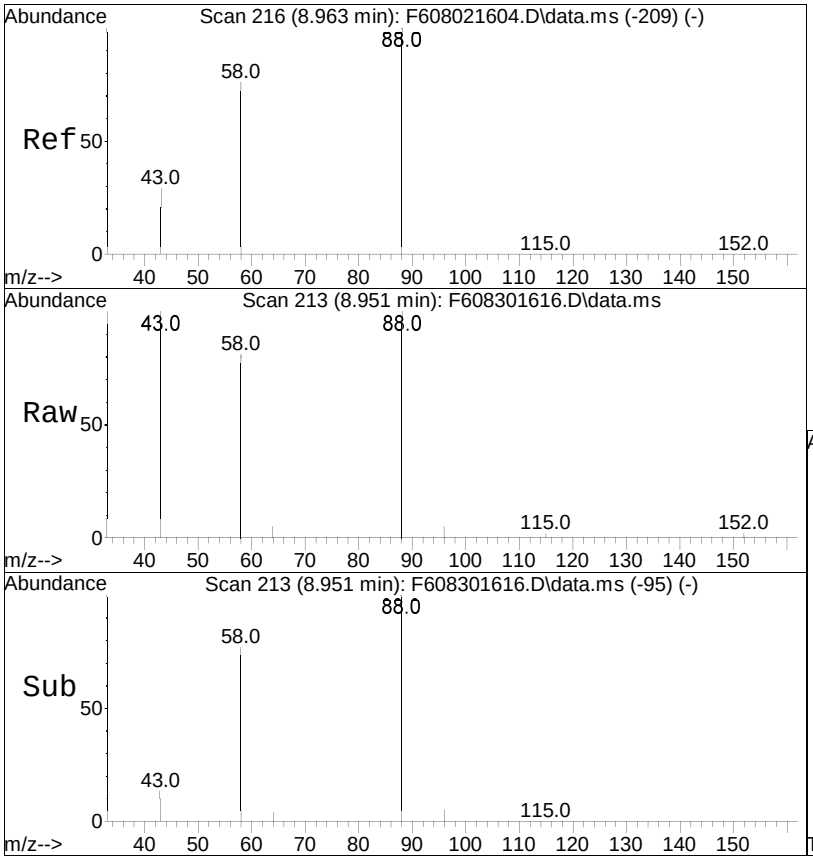
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301616.D
Acq On : 30 Aug 2016 9:51 pm
Operator : BNA6:WR
Sample : L1626448-09
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 31 14:01:11 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

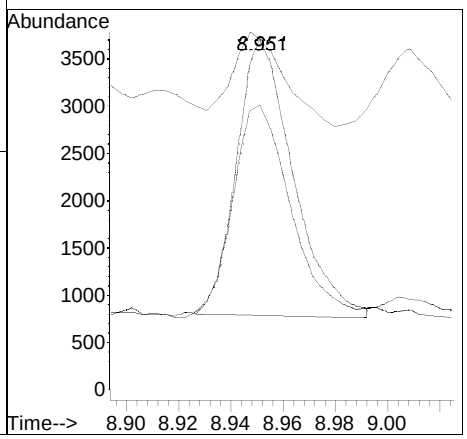




#2
1,4-dioxane
Concen: 73.87 ng/mL M4
RT: 8.951 min Scan# 213
Delta R.T. -0.020 min
Lab File: F608301616.D
Acq: 30 Aug 2016 9:51 pm

Tgt Ion: 88 Resp: 4359

Ion	Ratio	Lower	Upper
88	100		
58	79.5	62.1	93.1
43	31.3	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301617.D
Acq On : 30 Aug 2016 10:35 pm
Operator : BNA6:WR
Sample : L1626448-10
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 31 13:31:41 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.866	64	17359	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	179436	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.866	64	17359	111.780	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 22.36%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.935	88	54420	1093.797	ng/mL	97

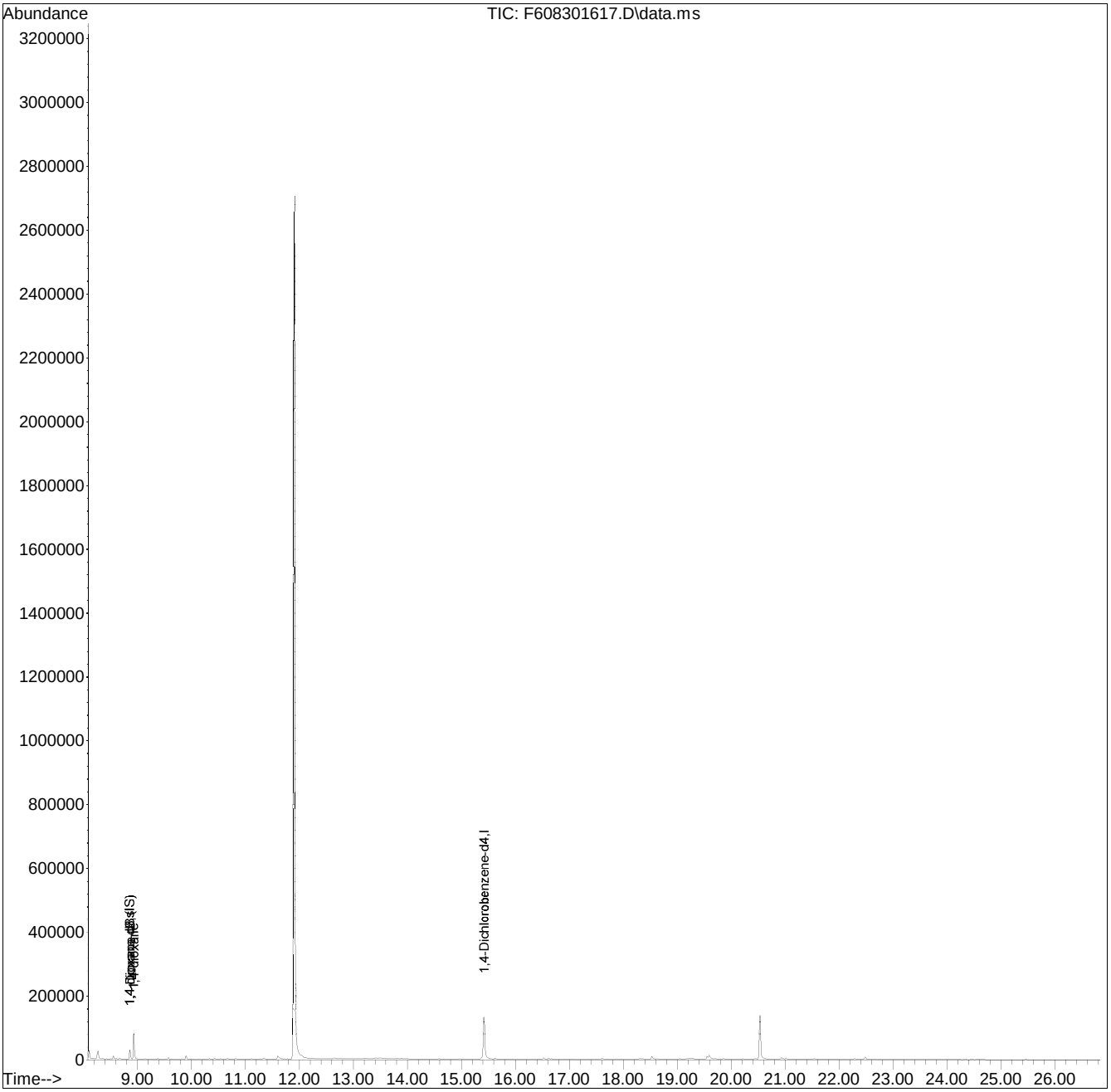
(#) = qualifier out of range (m) = manual integration (+) = signals summed

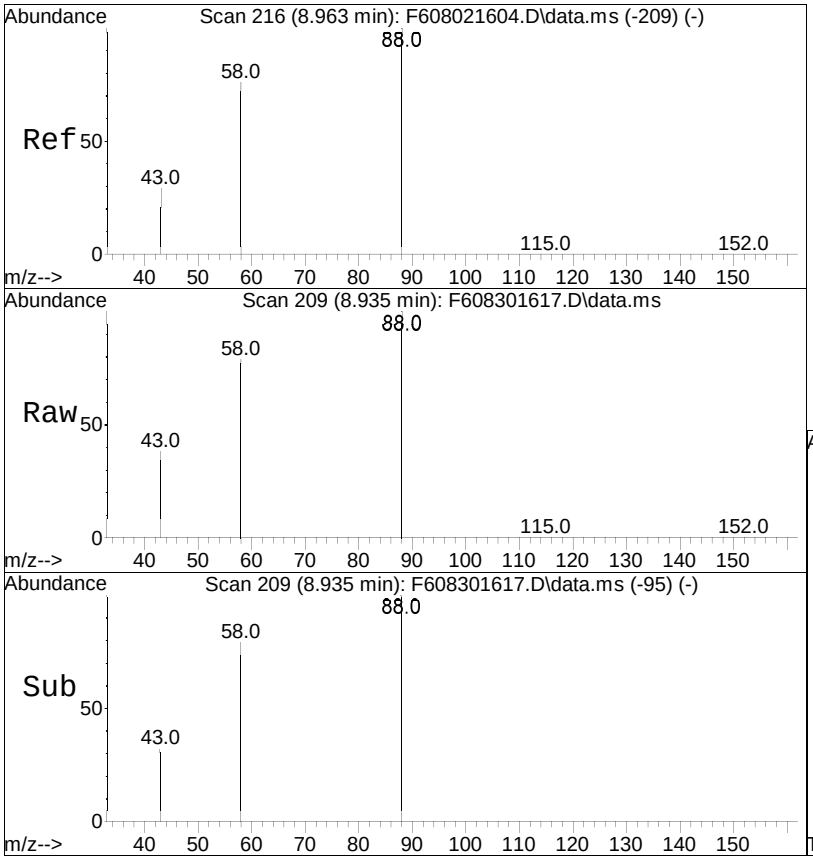
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301617.D
Acq On : 30 Aug 2016 10:35 pm
Operator : BNA6:WR
Sample : L1626448-10
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 31 13:31:41 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

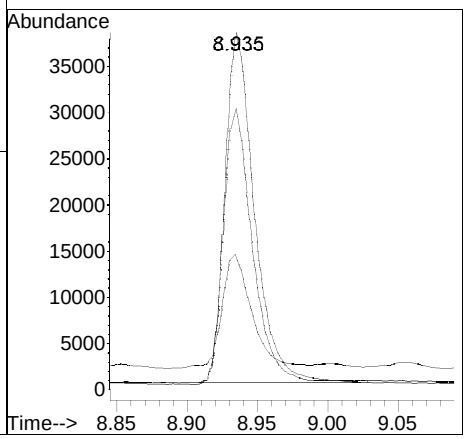




#2
1,4-dioxane
Concen: 1093.80 ng/mL
RT: 8.935 min Scan# 209
Delta R.T. -0.037 min
Lab File: F608301617.D
Acq: 30 Aug 2016 10:35 pm

Tgt Ion: 88 Resp: 54420

Ion	Ratio	Lower	Upper
88	100		
58	79.3	62.1	93.1
43	32.8	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301618.D
Acq On : 30 Aug 2016 11:18 pm
Operator : BNA6:WR
Sample : L1626448-11
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 31 14:02:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.866	64	15443	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	173156	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.866	64	15443	103.049	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 20.61%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.947	88	355M4	8.020	ng/mL	

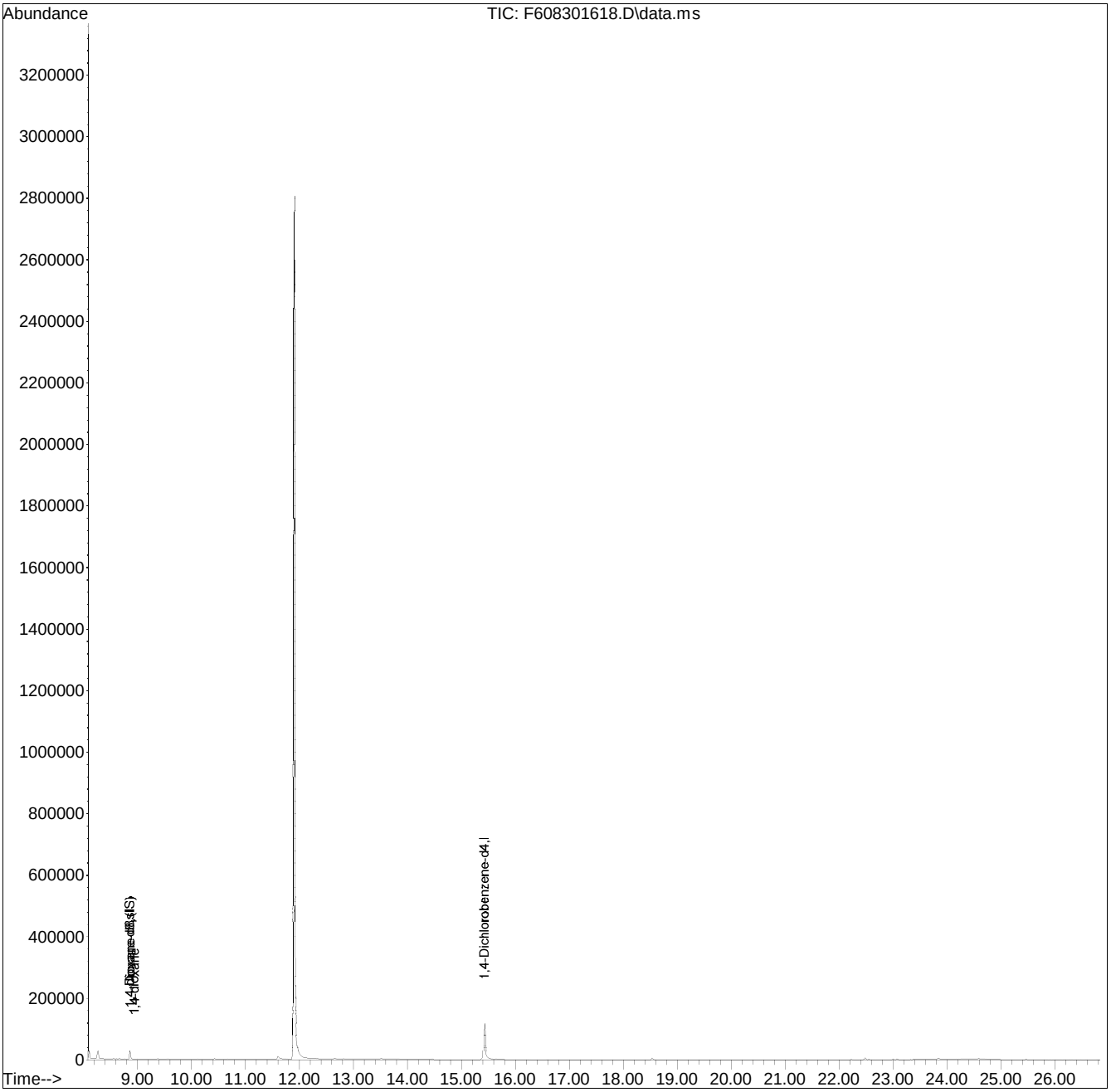
(#) = qualifier out of range (m) = manual integration (+) = signals summed

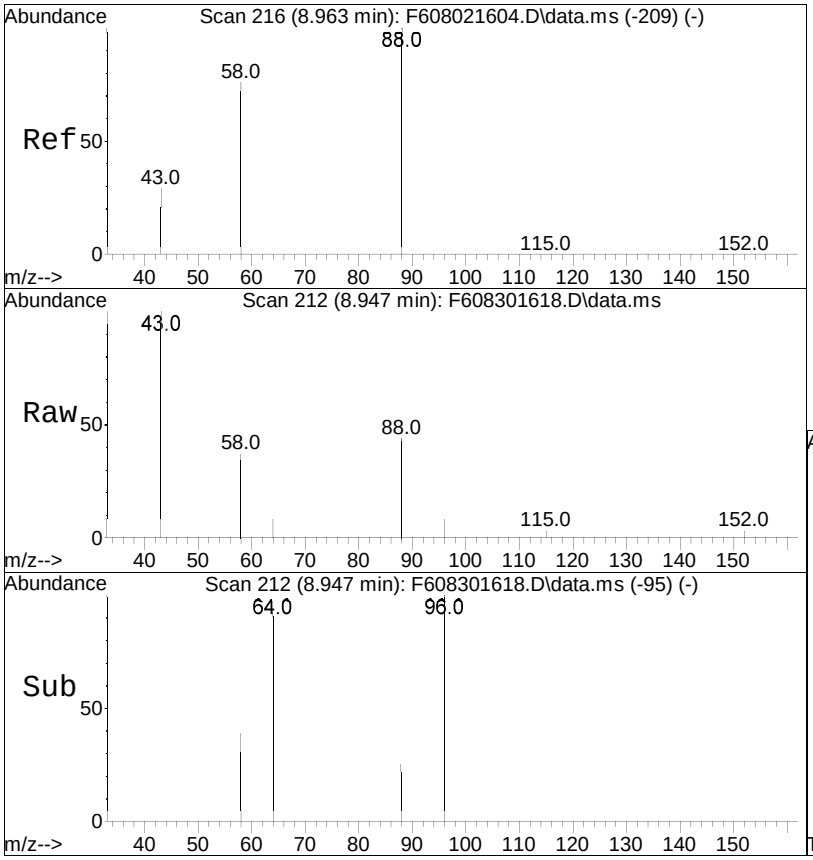
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301618.D
Acq On : 30 Aug 2016 11:18 pm
Operator : BNA6:WR
Sample : L1626448-11
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 31 14:02:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

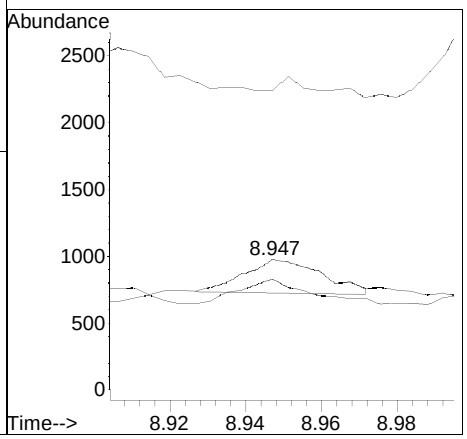




#2
1,4-dioxane
Concen: 8.02 ng/mL M4
RT: 8.947 min Scan# 212
Delta R.T. -0.024 min
Lab File: F608301618.D
Acq: 30 Aug 2016 11:18 pm

Tgt Ion: 88 Resp: 355

Ion	Ratio	Lower	Upper
88	100		
58	68.5	62.1	93.1
43	11.3	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301619.D
Acq On : 31 Aug 2016 12:02 am
Operator : BNA6:WR
Sample : L1626448-12
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 31 14:03:18 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

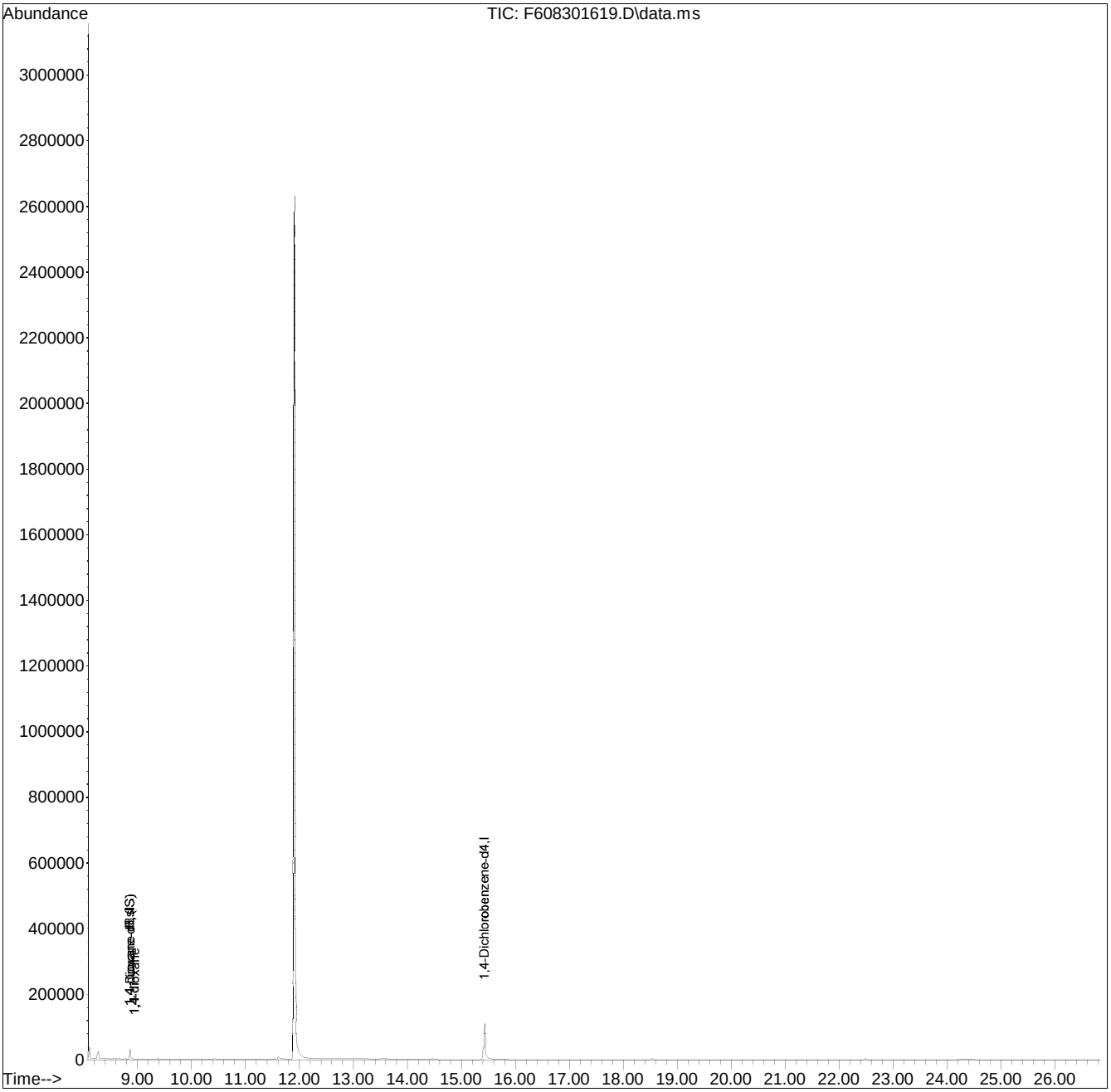
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.866	64	18014	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	164116	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.866	64	18014	126.826	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.37%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	345M4	6.682	ng/mL	

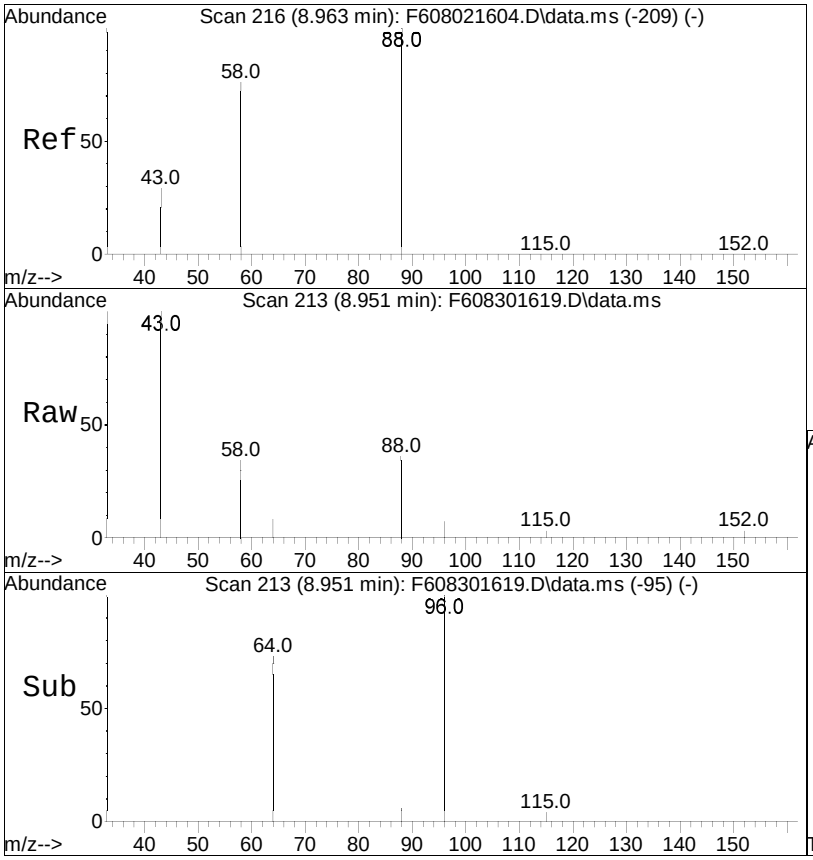
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301619.D
Acq On : 31 Aug 2016 12:02 am
Operator : BNA6:WR
Sample : L1626448-12
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 31 14:03:18 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

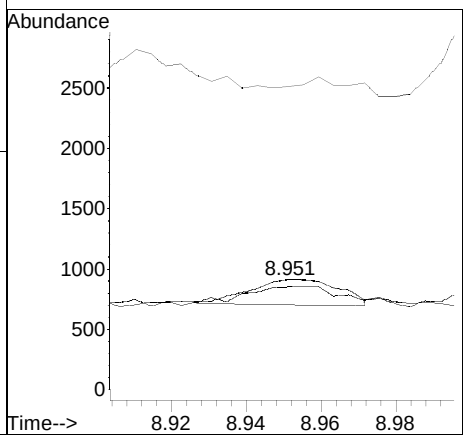




#2
1,4-dioxane
Concen: 6.68 ng/mL M4
RT: 8.951 min Scan# 213
Delta R.T. -0.020 min
Lab File: F608301619.D
Acq: 31 Aug 2016 12:02 am

Tgt Ion: 88 Resp: 345

Ion	Ratio	Lower	Upper
88	100		
58	7.8	62.1	93.1#
43	0.0	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301620.D
Acq On : 31 Aug 2016 12:46 am
Operator : BNA6:WR
Sample : L1626448-13
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 31 14:04:22 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.861	64	15688	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	165213	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.861	64	15688	109.716	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 21.94%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.943	88	732M4	16.280	ng/mL	

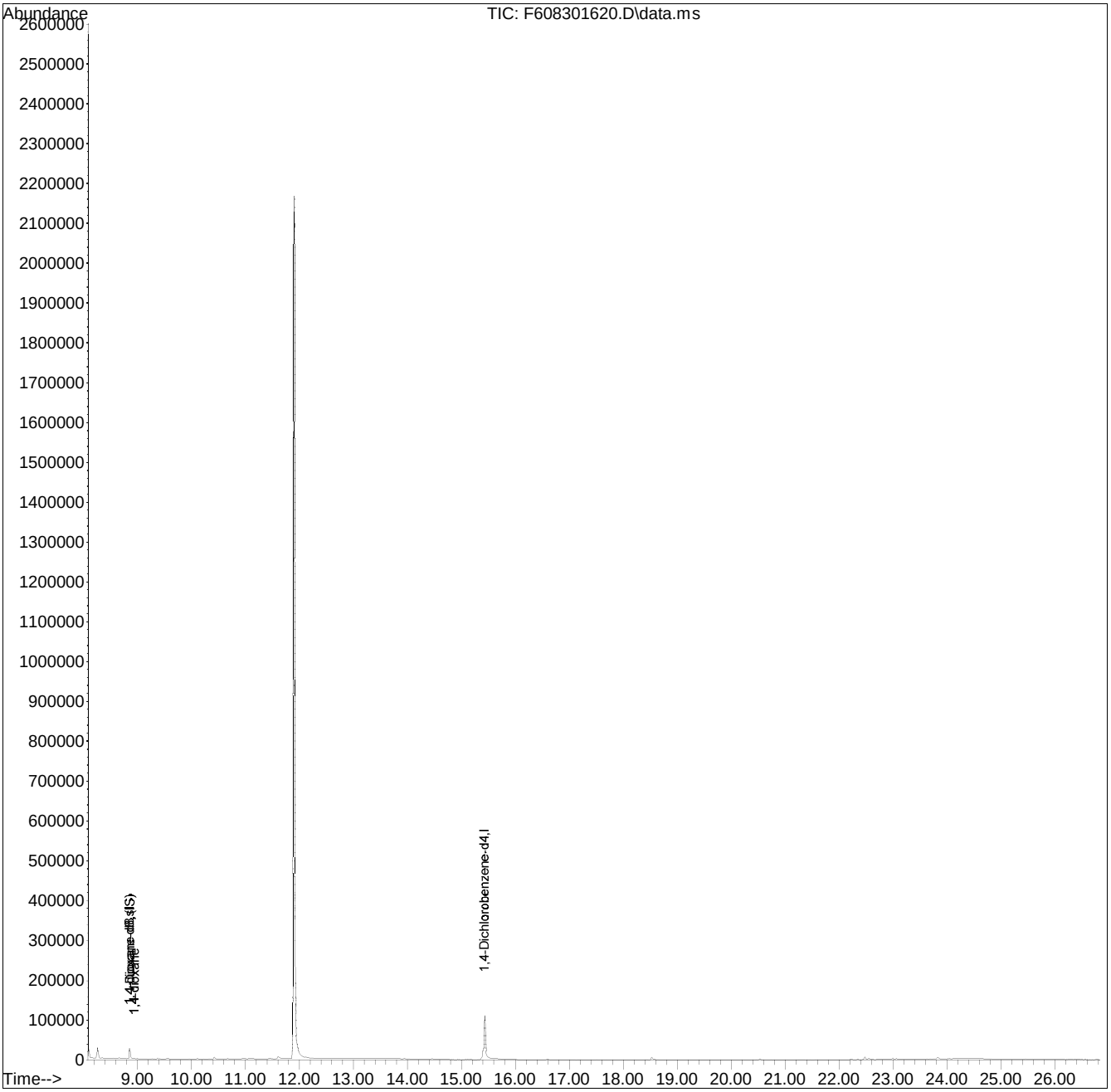
(#) = qualifier out of range (m) = manual integration (+) = signals summed

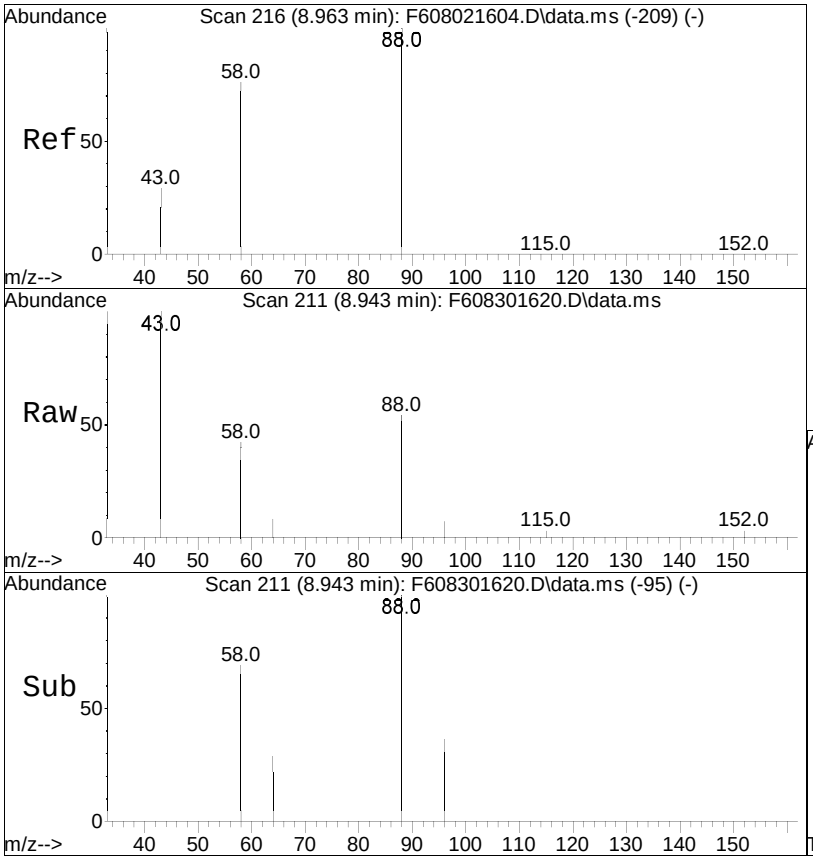
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301620.D
Acq On : 31 Aug 2016 12:46 am
Operator : BNA6:WR
Sample : L1626448-13
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 31 14:04:22 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

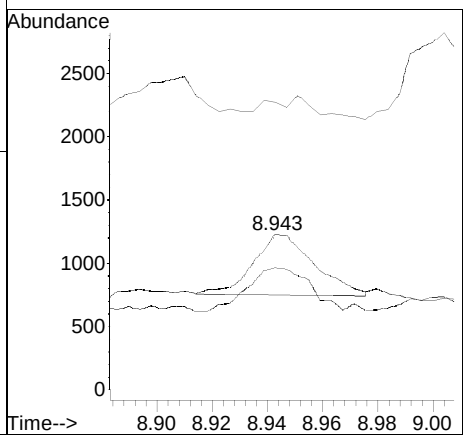




#2
1,4-dioxane
Concen: 16.28 ng/mL M4
RT: 8.943 min Scan# 211
Delta R.T. -0.028 min
Lab File: F608301620.D
Acq: 31 Aug 2016 12:46 am

Tgt Ion: 88 Resp: 732

Ion	Ratio	Lower	Upper
88	100		
58	78.1	62.1	93.1
43	6.3	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301621.D
Acq On : 31 Aug 2016 1:29 am
Operator : BNA6:WR
Sample : L1626448-14
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 31 14:05:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.862	64	15516	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	168343M4	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.862	64	15516	106.496	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 21.30%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.947	88	270M4	6.071	ng/mL	

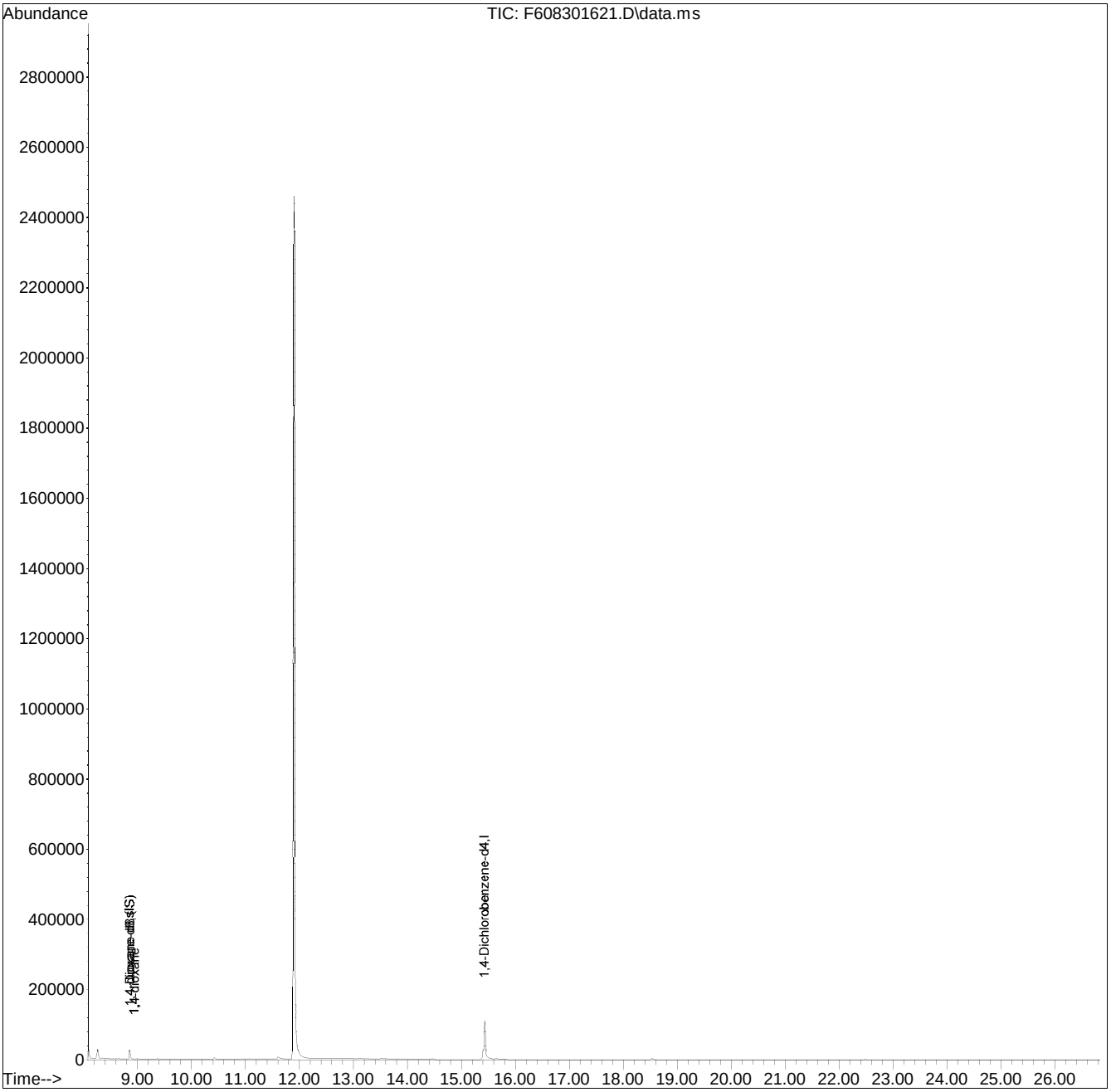
(#) = qualifier out of range (m) = manual integration (+) = signals summed

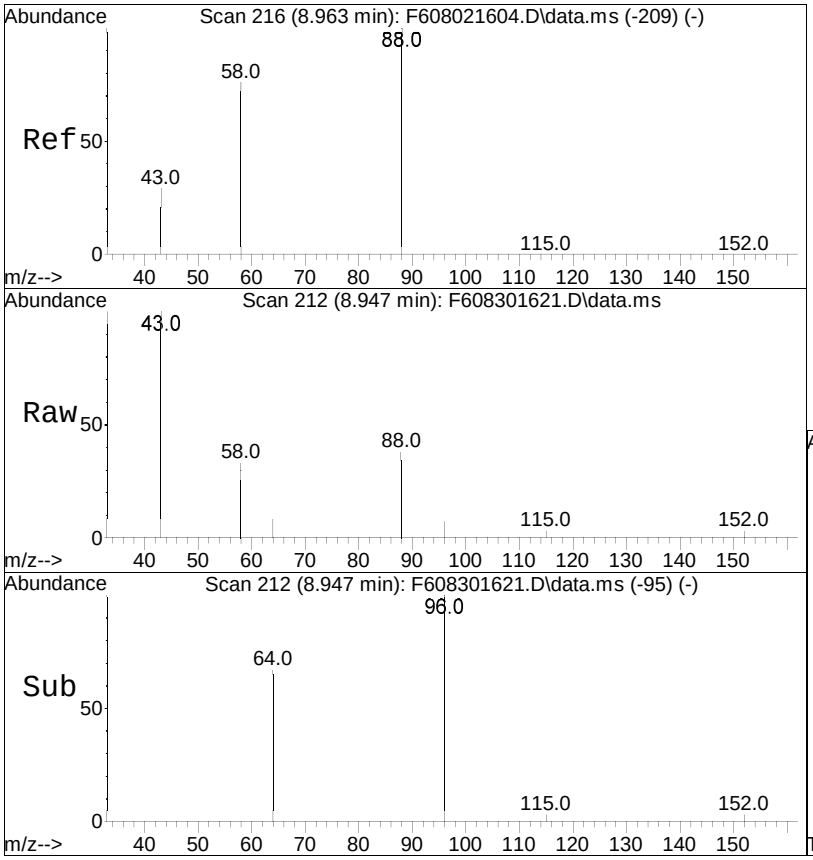
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301621.D
Acq On : 31 Aug 2016 1:29 am
Operator : BNA6:WR
Sample : L1626448-14
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 31 14:05:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

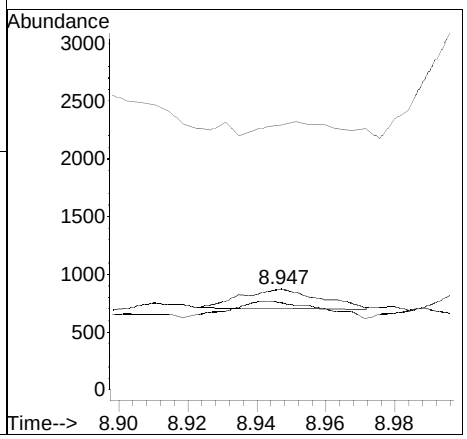




#2
1,4-dioxane
Concen: 6.07 ng/mL M4
RT: 8.947 min Scan# 212
Delta R.T. -0.024 min
Lab File: F608301621.D
Acq: 31 Aug 2016 1:29 am

Tgt Ion: 88 Resp: 270

Ion	Ratio	Lower	Upper
88	100		
58	99.3	62.1	93.1#
43	52.6	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301622.D
Acq On : 31 Aug 2016 2:13 am
Operator : BNA6:WR
Sample : L1626448-15
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 31 14:06:21 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.861	64	18518	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	168202	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.861	64	18518	127.207	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.44%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

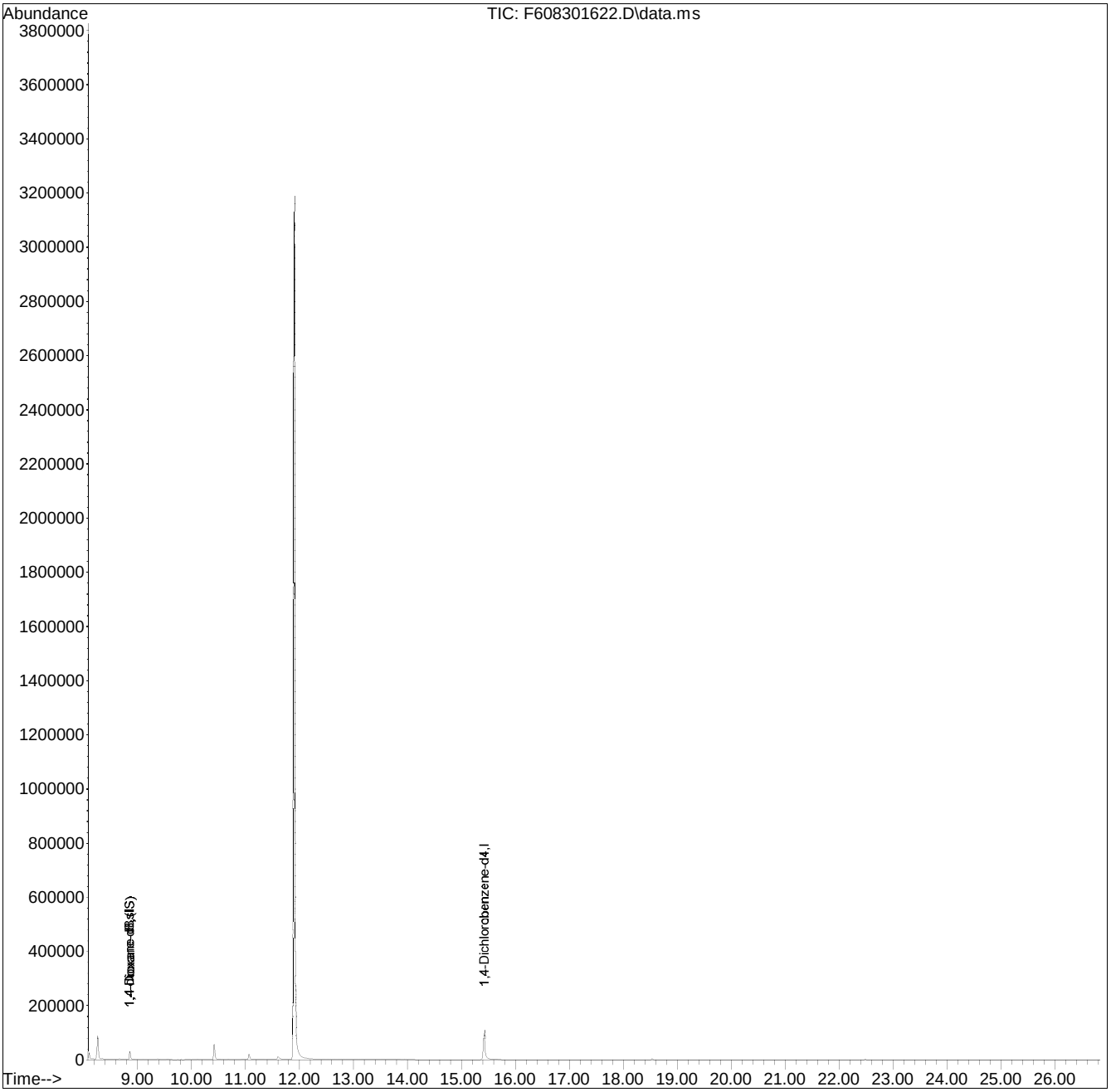
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301622.D
Acq On : 31 Aug 2016 2:13 am
Operator : BNA6:WR
Sample : L1626448-15
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 31 14:06:21 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Batch Quality Control

Method Blank
Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301603.D
Acq On : 30 Aug 2016 12:11 pm
Operator : BNA6:WR
Sample : WG926422-1
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 31 13:34:26 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.882	64	22504	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.414	152	186407	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.882	64	22504	139.491	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 27.90%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

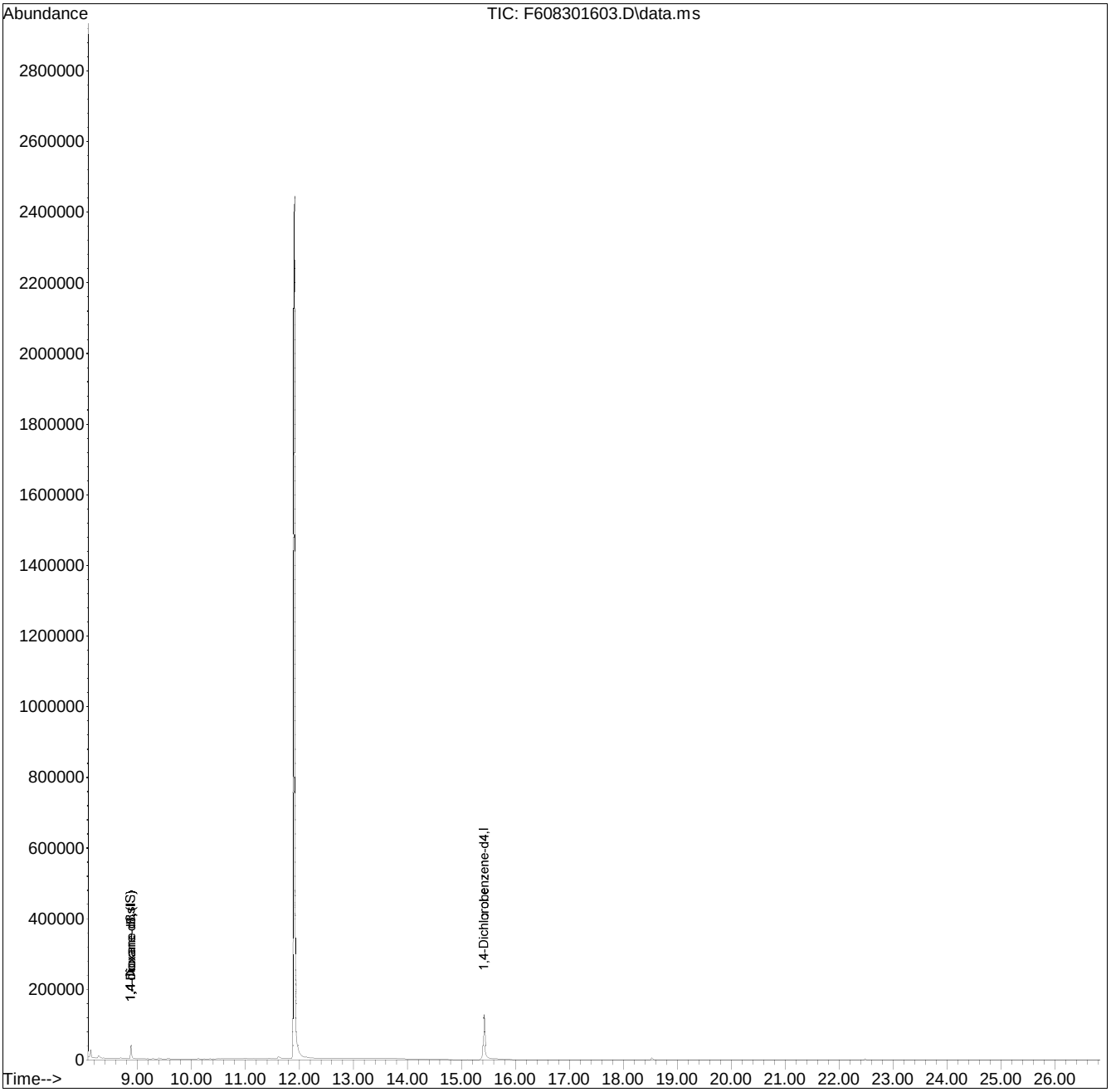
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301603.D
Acq On : 30 Aug 2016 12:11 pm
Operator : BNA6:WR
Sample : WG926422-1
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 31 13:34:26 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301604.D
Acq On : 30 Aug 2016 12:54 pm
Operator : BNA6:WR
Sample : WG926422-2
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 13:31:17 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

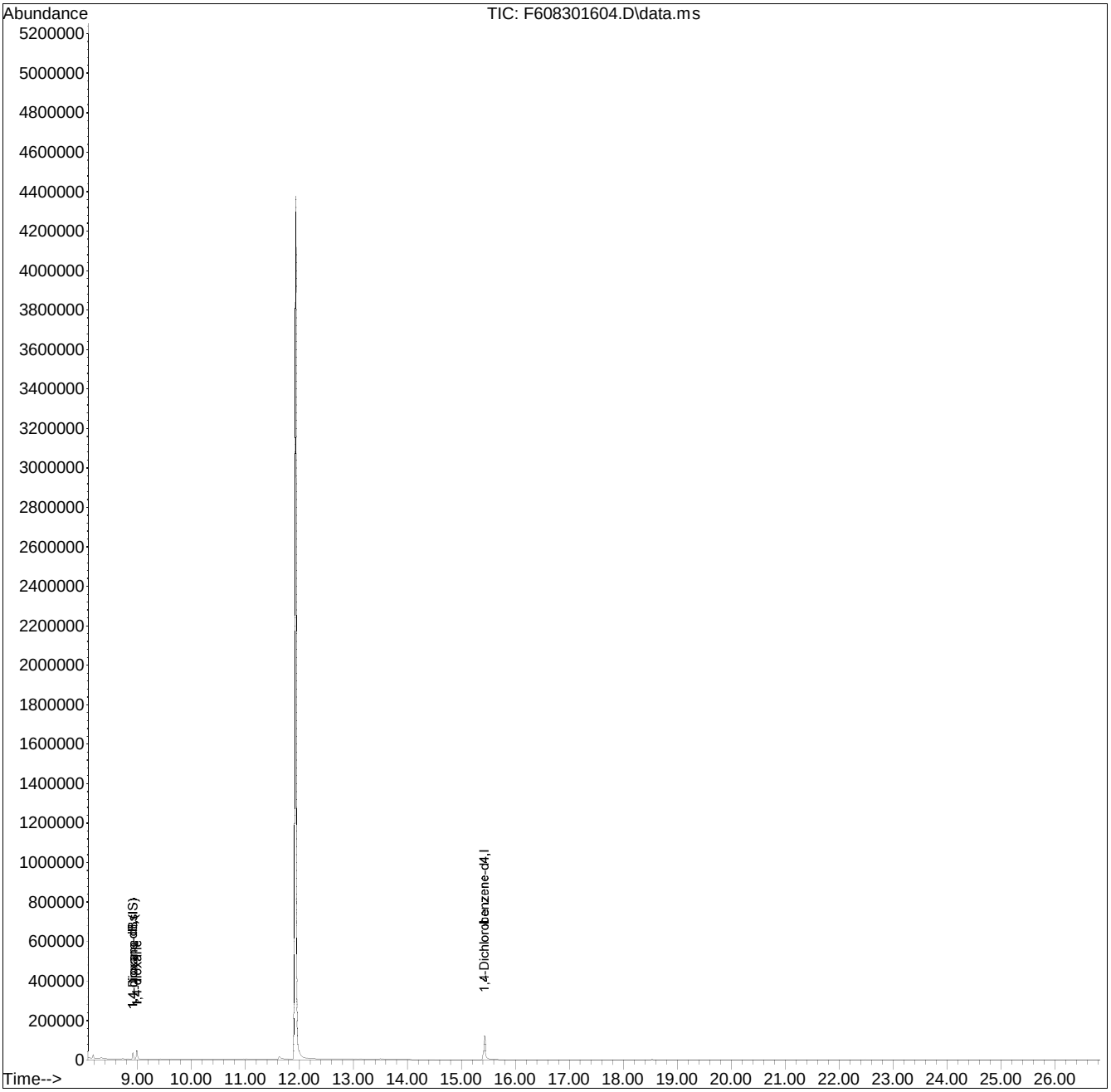
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.919	64	18442	500.000	ng/mL	0.02
3) 1,4-Dichlorobenzene-d4	15.422	152	176001	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.919	64	18442	121.071	ng/mL	0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.21%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.992	88	28876	546.301	ng/mL	98

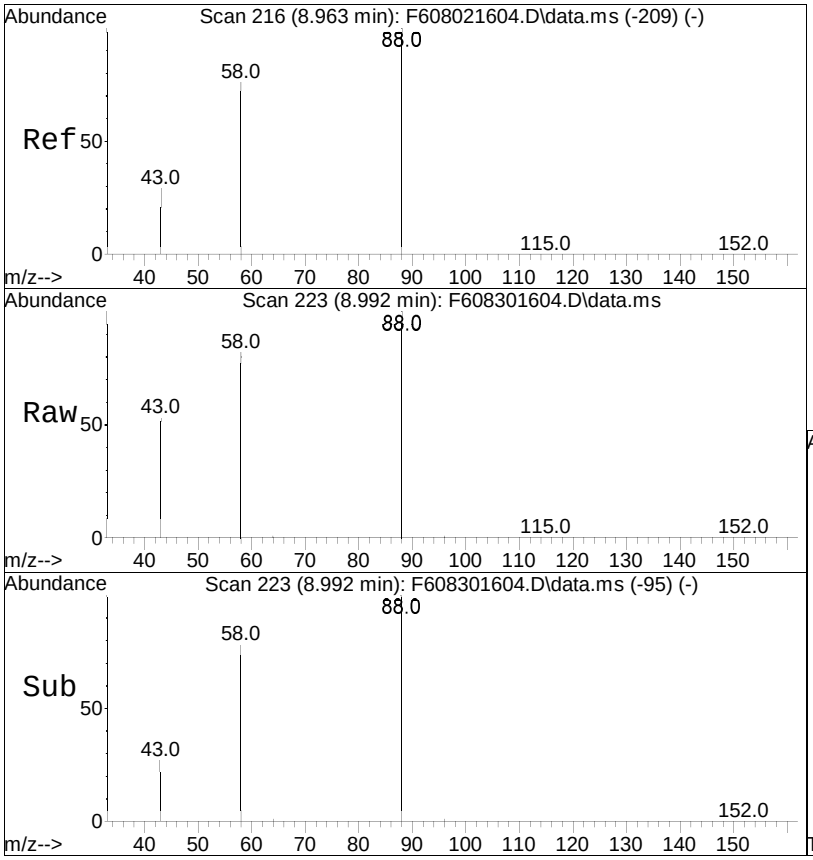
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301604.D
Acq On : 30 Aug 2016 12:54 pm
Operator : BNA6:WR
Sample : WG926422-2
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 13:31:17 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

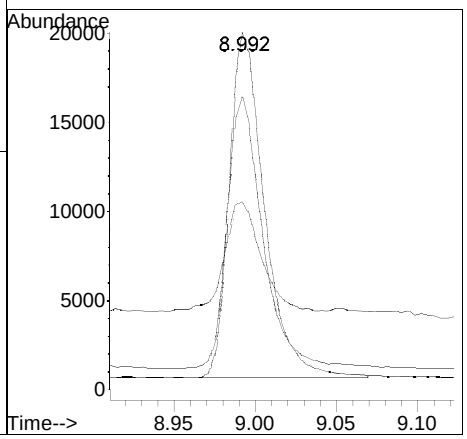




#2
1,4-dioxane
Concen: 546.30 ng/mL
RT: 8.992 min Scan# 223
Delta R.T. 0.021 min
Lab File: F608301604.D
Acq: 30 Aug 2016 12:54 pm

Tgt Ion: 88 Resp: 28876

Ion	Ratio	Lower	Upper
88	100		
58	78.6	62.1	93.1
43	33.2	24.4	36.6



LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301605.D
Acq On : 30 Aug 2016 1:38 pm
Operator : BNA6:WR
Sample : WG926422-3
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 31 13:52:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	18485	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.422	152	169901M4	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	18485	125.711	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.14%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.971	88	29538	557.525	ng/mL	99

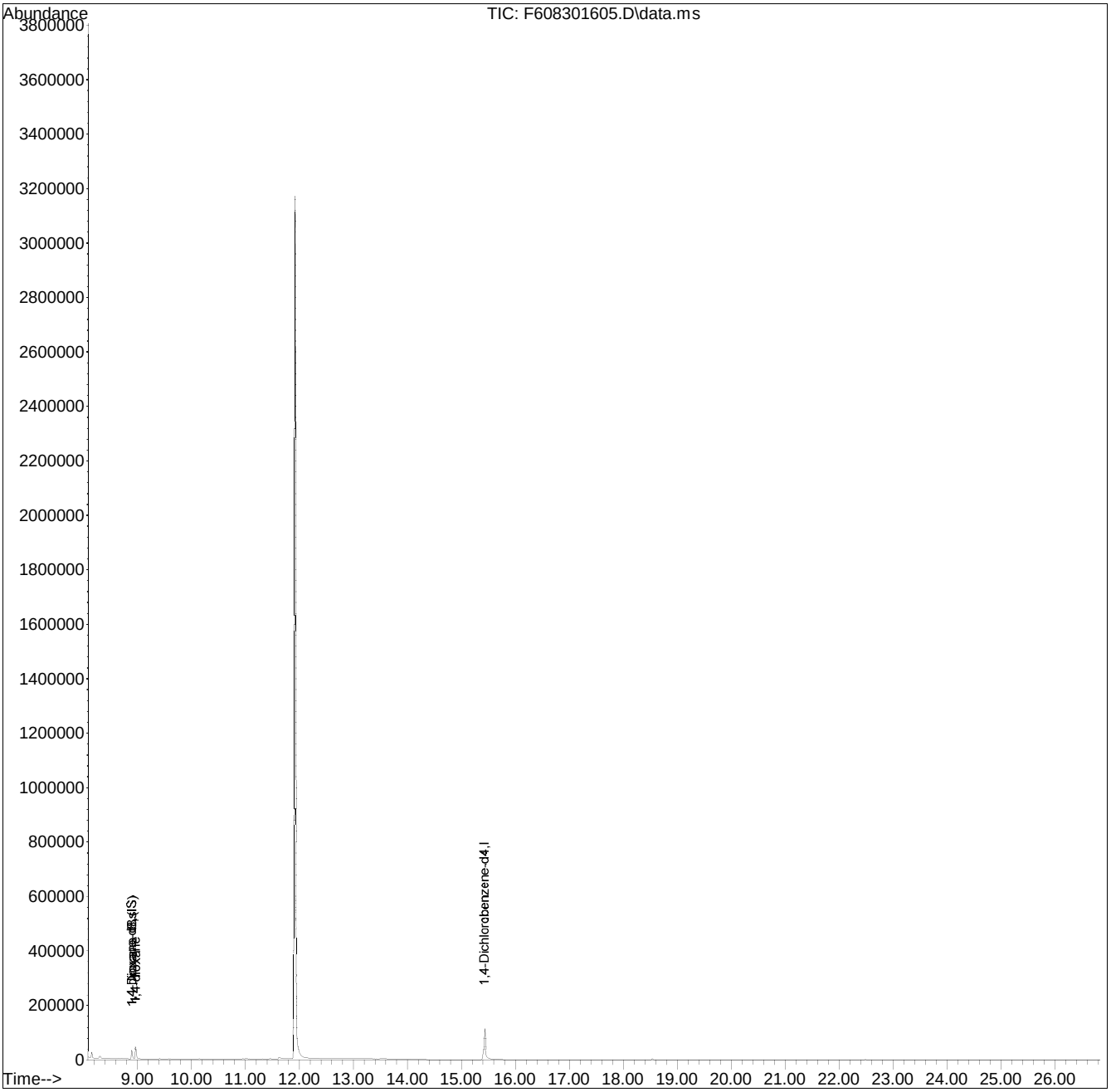
(#) = qualifier out of range (m) = manual integration (+) = signals summed

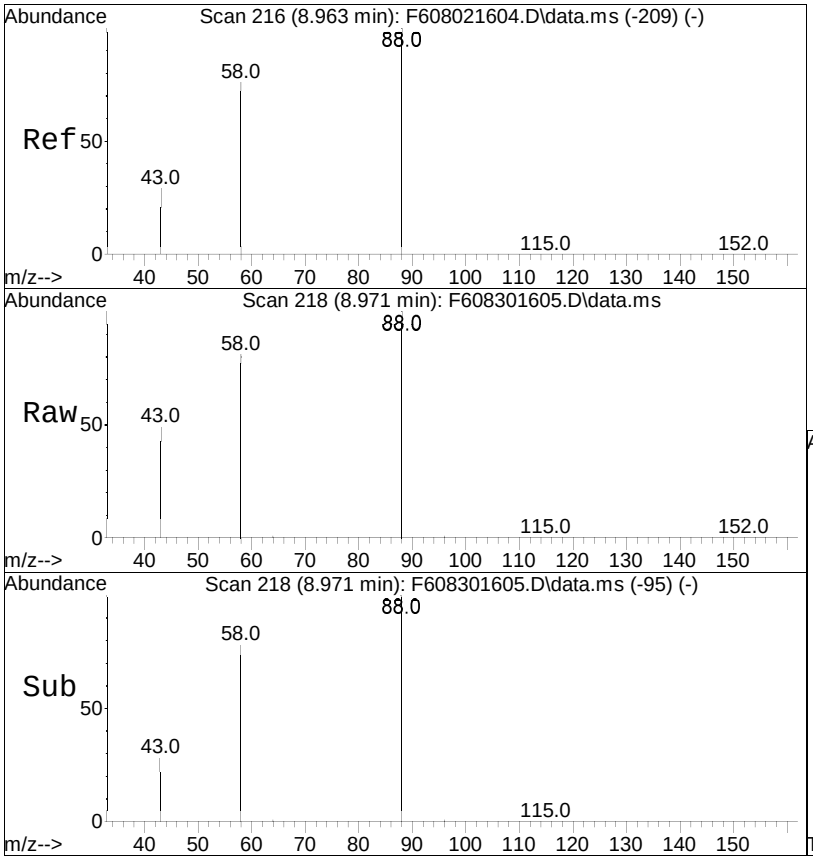
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug30\
Data File : F608301605.D
Acq On : 30 Aug 2016 1:38 pm
Operator : BNA6:WR
Sample : WG926422-3
Misc : WG927023,WG926422,ICAL12751
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 31 13:52:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug30\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

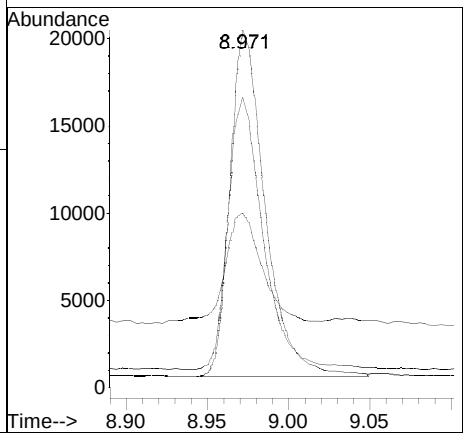




#2
1,4-dioxane
Concen: 557.53 ng/mL
RT: 8.971 min Scan# 218
Delta R.T. 0.000 min
Lab File: F608301605.D
Acq: 30 Aug 2016 1:38 pm

Tgt Ion: 88 Resp: 29538

Ion	Ratio	Lower	Upper
88	100		
58	78.0	62.1	93.1
43	32.5	24.4	36.6



Sample Preparation

ORGANIC ELN REPORT

Workgroup: WG926422

Prep Method: EPA 3510C
Solvent Type: DCM **Lot #:** 0000113719
Surrogate Type: 1,4-DIOXANE **Lot #:** MSAK13
Spike Type: 1,4-DIOXANE **Lot #:** MSAK04
Spike Verify by: ABS
Lims Spikelot: 14DIOXANE

Additional Reagents/Stds

Glass Wool	11414001
Na2SO4	0000131774

Conc.Method: S-EVAP
Solvent Type: DCM
Lot #: 0000113719

Additional Reagents/Stds

Cleanup 1

Cleanup Method 1:
Cleanup Method 2:
Solvent Type: **Lot #:**

Additional Reagents/Stds

Sample/ Type	Extraction: Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Concentration: Conc Date	Analyst	Final Vol ml	Conc Unit
WG926422-1 BLANK	08/26/16 16:45	Daniel Robbins	500	7	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5
WG926422-2 LCS	08/26/16 16:45	Daniel Robbins	500	7	.5	.5	08/26/16 18:18	Daniel Robbins	5	SEVAP 5
WG926422-3 LCSD	08/26/16 16:45	Daniel Robbins	500	7	.5	.5	08/26/16 18:18	Daniel Robbins	5	SEVAP 5
L1626448-01 WATER	08/26/16 16:45	Daniel Robbins	510	7	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5
L1626448-02 WATER	08/26/16 16:45	Daniel Robbins	510	7	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5
L1626448-03 WATER	08/26/16 16:45	Daniel Robbins	510	7	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5
L1626448-04 WATER	08/26/16 16:45	Daniel Robbins	510	7	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5

Reported: 20-SEP-16 03:56 PM

ORGANIC ELN REPORT

Workgroup: WG926422

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Conc Date	Analyst	Final Vol ml	Conc Unit
L1626448-05 WATER	08/26/16 16:45	Daniel Robbins	510	8	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5
L1626448-06 WATER	08/26/16 16:45	Daniel Robbins	510	7	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5
L1626448-07 WATER	08/26/16 16:45	Daniel Robbins	460	7	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5
L1626448-08 WATER	08/26/16 16:45	Daniel Robbins	460	10	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5
	INITIAL PH OF 10 MADE NEUTRAL TO A PH OF 7 WITH H2SO4 OWA041416A 08/26/16 ABS									
L1626448-09 WATER	08/26/16 16:45	Daniel Robbins	410	11	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5
	INITIAL PH OF 11 MADE NEUTRAL TO A PH OF 9 WITH H2SO4 OWA041416A 08/26/16 ABS									
L1626448-10 WATER	08/26/16 16:45	Daniel Robbins	460	11	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5
	INITIAL PH OF 11 MADE NEUTRAL TO A PH OF 8 WITH H2SO4 OWA041416A 08/26/16 ABS									
L1626448-11 WATER	08/26/16 16:45	Daniel Robbins	510	7	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5
L1626448-12 WATER	08/26/16 16:45	Daniel Robbins	510	8	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5
L1626448-13 WATER	08/26/16 16:45	Daniel Robbins	500	7	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5
L1626448-14 WATER	08/26/16 16:45	Daniel Robbins	510	8	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5

ORGANIC ELN REPORT

Workgroup: WG926422

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol **ml**	Ph	Surr Amt **ml**	Spike Amt **ml**	Conc Date	Analyst	Final Vol **ml**	Conc Unit
L1626448-15 WATER	08/26/16 16:45	Daniel Robbins	460	8	.5		08/26/16 18:18	Daniel Robbins	5	SEVAP 5

Reported: 20-SEP-16 03:56 PM

Alpha Report

ANALYTICAL REPORT

Lab Number:	L1626448
Client:	Cornerstone Environmental Group, LLC 100 Crystal Run Road Suite 101 Middletown, NY 10941
ATTN:	Tim Roeper
Phone:	(845) 695-0200
Project Name:	FORD-RIDGEWOOD
Project Number:	Not Specified
Report Date:	09/01/16

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: FORD-RIDGEWOOD
Project Number: Not Specified

Lab Number: L1626448
Report Date: 09/01/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1626448-01	PMP-POND-082216	WATER	RIDGEWOOD, NJ	08/22/16 08:30	08/23/16
L1626448-02	DUP-03-082216	WATER	RIDGEWOOD, NJ	08/22/16 12:00	08/23/16
L1626448-03	SW-PAB-02-082216	WATER	RIDGEWOOD, NJ	08/22/16 14:45	08/23/16
L1626448-04	SW-PAB-03-082216	WATER	RIDGEWOOD, NJ	08/22/16 13:00	08/23/16
L1626448-05	SW-PMB-02-082216	WATER	RIDGEWOOD, NJ	08/22/16 17:45	08/23/16
L1626448-06	SW-MRB-01-082216	WATER	RIDGEWOOD, NJ	08/22/16 16:00	08/23/16
L1626448-07	SW-NOB-01-082216	WATER	RIDGEWOOD, NJ	08/22/16 10:00	08/23/16
L1626448-08	RW-12 (55-65)-082216	WATER	RIDGEWOOD, NJ	08/22/16 16:00	08/23/16
L1626448-09	RW-2 (452-462)-082216	WATER	RIDGEWOOD, NJ	08/22/16 13:00	08/23/16
L1626448-10	RW-2 (279-289)-082216	WATER	RIDGEWOOD, NJ	08/22/16 11:05	08/23/16
L1626448-11	CMP-160-082216	WATER	RIDGEWOOD, NJ	08/22/16 13:20	08/23/16
L1626448-12	CMP-100-082216	WATER	RIDGEWOOD, NJ	08/22/16 11:40	08/23/16
L1626448-13	CMP-275-082216	WATER	RIDGEWOOD, NJ	08/22/16 14:50	08/23/16
L1626448-14	CMP-50-082216	WATER	RIDGEWOOD, NJ	08/22/16 10:30	08/23/16
L1626448-15	SW-PMB-01-082316	WATER	RIDGEWOOD, NJ	08/23/16 07:03	08/23/16

Project Name: FORD-RIDGEWOOD
Project Number: Not Specified

Lab Number: L1626448
Report Date: 09/01/16

NJ DEP Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	YES
1a	Were the method specified handling, preservation, and holding time requirements met?	YES
1b	EPH Method: Was the EPH Method conducted without significant modifications (see Section 11.3 of respective DKQ methods)?	N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	YES
3	Were all samples received at an appropriate temperature (4 ± 2° C)?	YES
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	YES
5a	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	NO
5b	Were these reporting limits met?	N/A
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	NO
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	NO

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1a or #1b is "No", the data package does not meet the requirements for "Data of Known Quality".

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626448
Project Number: Not Specified **Report Date:** 09/01/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626448
Project Number: Not Specified **Report Date:** 09/01/16

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

DKQP Related Narratives

Semi-Volatiles

In reference to question 5a:

Reporting limits were not specified.

In reference to question 6:

At the client's request, all submitted samples were not analyzed for the full DKQP list of constituents identified in the method specific analyte list presented in the DKQP documents.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Susan E O'Neil Susan O' Neil

Title: Technical Director/Representative Date: 09/01/16

ORGANICS

SEMIVOLATILES

Project Name: FORD-RIDGEWOOD
Lab Number: L1626448
Project Number: Not Specified
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID:	L1626448-01	Date Collected:	08/22/16 08:30
Client ID:	PMP-POND-082216	Date Received:	08/23/16
Sample Location:	RIDGEWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/26/16 16:45
Analytical Date:	08/30/16 14:22		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	23		15-110

Project Name: FORD-RIDGEWOOD
Lab Number: L1626448
Project Number: Not Specified
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626448-02
Client ID: DUP-03-082216
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/30/16 15:06
Analyst: WR

Date Collected: 08/22/16 12:00
Date Received: 08/23/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	23		15-110

Project Name: FORD-RIDGEWOOD
Project Number: Not Specified
Lab Number: L1626448
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626448-03
Client ID: SW-PAB-02-082216
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/30/16 15:50
Analyst: WR

Date Collected: 08/22/16 14:45
Date Received: 08/23/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	1.20		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	22		15-110

Project Name: FORD-RIDGEWOOD
Project Number: Not Specified
Lab Number: L1626448
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626448-04
Client ID: SW-PAB-03-082216
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/30/16 16:34
Analyst: WR

Date Collected: 08/22/16 13:00
Date Received: 08/23/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.442		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RIDGEWOOD
Project Number: Not Specified
Lab Number: L1626448
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626448-05
Client ID: SW-PMB-02-082216
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/30/16 18:55
Analyst: WR

Date Collected: 08/22/16 17:45
Date Received: 08/23/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	21		15-110

Project Name: FORD-RIDGEWOOD
Project Number: Not Specified
Lab Number: L1626448
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626448-06
Client ID: SW-MRB-01-082216
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/30/16 19:39
Analyst: WR

Date Collected: 08/22/16 16:00
Date Received: 08/23/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	22		15-110

Project Name: FORD-RIDGEWOOD
Project Number: Not Specified
Lab Number: L1626448
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626448-07
Client ID: SW-NOB-01-082216
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/30/16 20:23
Analyst: WR

Date Collected: 08/22/16 10:00
Date Received: 08/23/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.163	0.0815	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	26		15-110

Project Name: FORD-RIDGEWOOD
Lab Number: L1626448
Project Number: Not Specified
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID:	L1626448-08	Date Collected:	08/22/16 16:00
Client ID:	RW-12 (55-65)-082216	Date Received:	08/23/16
Sample Location:	RIDGEWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/26/16 16:45
Analytical Date:	08/30/16 21:07		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.163	0.0815	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	22		15-110

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626448

Project Number: Not Specified **Report Date:** 09/01/16

SAMPLE RESULTS

Lab ID: L1626448-09
Client ID: RW-2 (452-462)-082216
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/30/16 21:51
Analyst: WR

Date Collected: 08/22/16 13:00
Date Received: 08/23/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.901		ug/l	0.183	0.0915	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626448

Project Number: Not Specified **Report Date:** 09/01/16

SAMPLE RESULTS

Lab ID: L1626448-10
Client ID: RW-2 (279-289)-082216
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/30/16 22:35
Analyst: WR

Date Collected: 08/22/16 11:05
Date Received: 08/23/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	11.9		ug/l	0.163	0.0815	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	22		15-110

Project Name: FORD-RIDGEWOOD
Project Number: Not Specified
Lab Number: L1626448
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626448-11
Client ID: CMP-160-082216
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/30/16 23:18
Analyst: WR

Date Collected: 08/22/16 13:20
Date Received: 08/23/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.0786	J	ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	21		15-110

Project Name: FORD-RIDGEWOOD
Project Number: Not Specified
Lab Number: L1626448
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626448-12
Client ID: CMP-100-082216
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/31/16 00:02
Analyst: WR

Date Collected: 08/22/16 11:40
Date Received: 08/23/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: FORD-RIDGEWOOD
Project Number: Not Specified
Lab Number: L1626448
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626448-13
Client ID: CMP-275-082216
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/31/16 00:46
Analyst: WR

Date Collected: 08/22/16 14:50
Date Received: 08/23/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.163		ug/l	0.150	0.0750	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	22		15-110

Project Name: FORD-RIDGEWOOD
Lab Number: L1626448
Project Number: Not Specified
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626448-14
Client ID: CMP-50-082216
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/31/16 01:29
Analyst: WR

Date Collected: 08/22/16 10:30
Date Received: 08/23/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	21		15-110

Project Name: FORD-RIDGEWOOD
Project Number: Not Specified
Lab Number: L1626448
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626448-15
Client ID: SW-PMB-01-082316
Sample Location: RIDGEWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/31/16 02:13
Analyst: WR

Date Collected: 08/23/16 07:03
Date Received: 08/23/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 16:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.163	0.0815	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: FORD-RIDGEWOOD
Project Number: Not Specified

Lab Number: L1626448
Report Date: 09/01/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 08/30/16 12:11
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 08/26/16 16:45

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01-15 Batch: WG926422-1					
1,4-Dioxane	ND		ug/l	0.150	0.0750

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	28		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORD-RIDGEWOOD

Project Number: Not Specified

Lab Number: L1626448

Report Date: 09/01/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab	Associated sample(s): 01-15		Batch: WG926422-2 WG926422-3					
1,4-Dioxane	109		112		40-140	3		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	24		25		15-110

Project Name: FORD-RIDGEWOOD
Project Number: Not Specified

Lab Number: L1626448
Report Date: 09/01/16

Sample Receipt and Container Information

Were project specific reporting limits specified? NO

Cooler Information Custody Seal

Cooler	
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1626448-01A	Amber 500ml unpreserved	A	7		Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-01B	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-02A	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-02B	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-03A	Amber 500ml unpreserved	B	7	2.3	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-03B	Amber 500ml unpreserved	B	7	2.3	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-04A	Amber 500ml unpreserved	B	7	2.3	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-04B	Amber 500ml unpreserved	B	7	2.3	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-05A	Amber 500ml unpreserved	B	7	2.3	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-05B	Amber 500ml unpreserved	B	7	2.3	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-06A	Amber 500ml unpreserved	B	7	2.3	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-06B	Amber 500ml unpreserved	B	7	2.3	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-07A	Amber 500ml unpreserved	B	7	2.3	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-07B	Amber 500ml unpreserved	B	7	2.3	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-08A	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-08B	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-09A	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-09B	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-10A	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-10B	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-11A	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-11B	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-12A	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-12B	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-13A	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-13B	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-14A	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-14B	Amber 500ml unpreserved	A	7	3.8	Y	Absent	A2-14-DIOXANESIM-PPB(7)

*Values in parentheses indicate holding time in days

Project Name: FORD-RIDGEWOOD
Project Number: Not Specified

Lab Number: L1626448
Report Date: 09/01/16

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1626448-15A	Amber 500ml unpreserved	B	7	2.3	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626448-15B	Amber 500ml unpreserved	B	7	2.3	Y	Absent	A2-14-DIOXANESIM-PPB(7)

*Values in parentheses indicate holding time in days

Project Name:	FORD-RIDGEWOOD	**Lab Number:**	L1626448
Project Number:	Not Specified	**Report Date:**	09/01/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: DU Report with 'J' Qualifiers

Project Name: FORD-RIDGEWOOD **Lab Number:** L1626448

Project Number: Not Specified **Report Date:** 09/01/16

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name: FORD-RIDGEWOOD
Project Number: Not Specified
Lab Number: L1626448
Report Date: 09/01/16

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: ***EPA 3050B***

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab 8/24/16

ALPHA Job # L1626448

Client Information

Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 845 895 0200
Fax:
Email:

Project Information

Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #
(Use Project name as Project #) ☐
Project Manager: Tim Reaper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

A2 1,4 Dioxane SIM - PDB

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4 Dioxane SIM - PDB	Sample Specific Comments
26446-01	PMP-Pond-082216	8/22/16	08:30	SW	AL	✓	
-02	Dup-03-082216	8/22/16	12:00	SW	AL	✓	
-03	SW-PAB-02-082216	8/22/16	14:45	SW	AL	✓	
-04	SW-PAB-03-082216	8/22/16	13:00	SW	AL	✓	
-05	SW-PMB-02-082216	8/22/16	17:45	SW	AL	✓	
-06	SW-MRB-01-082216	8/22/16	16:00	SW	AL	✓	
-07	SW-NOB-01-082216	8/22/16	10:00	SW	AL	✓	
-08	RW-12 (55-65)-082216	8/22/16	16:10	GW	AL	✓	
-09	RW-2 (452-462)-082216	8/22/16	13:00	GW	AL	✓	
-10	RW-2 (279-289)-082216	8/22/16	11:05	GW	AL	✓	

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
		AL	8/23/16 8:40
AL	8/23/16 1810		8-23-16 1810
	8-23-16 2330		8/24/16 23:30
	8/24/16 0355		8/24/16 03:55

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 8/24/16

ALPHA Job #: L1626448

Client Information

Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information

Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #
(Use Project name as Project #) ☐
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

A2 1,4 Dioxane SIM - PPB

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2	Sample Specific Comments
-11	CMP-160-082216	8/22/16	13:20	GW	RJ	✓	
-12	CMP-100-082216	8/22/16	11:40	GW	RJ	✓	
-13	CMP-275-082216	8/22/16	14:50	GW	RJ	✓	
-14	CMP-50-082216	8/22/16	16:30	GW	RJ	✓	
-15	SW-PMB-01-082316	8/23/16	07:30	SW	RJ	✓	

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
			8/23/16 8:30
	8/23/16 1810		8-23-16 1810
	8-23-16 2330		8/23/16 2312
	8/24/16 0355		8/24/16 03:55

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONSTITUTIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Alpha
Summary Forms

Organic Summary Forms

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: L1626448-01	**Date Collected**	: 08/22/16 08:30
Client ID	: PMP-POND-082216	**Date Received**	: 08/23/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/30/16 14:22
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301606	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.147	0.0735	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: L1626448-02	**Date Collected**	: 08/22/16 12:00
Client ID	: DUP-03-082216	**Date Received**	: 08/23/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/30/16 15:06
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301607	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.147	0.0735	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: L1626448-03	**Date Collected**	: 08/22/16 14:45
Client ID	: SW-PAB-02-082216	**Date Received**	: 08/23/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/30/16 15:50
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301608	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	1.20	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: L1626448-04	**Date Collected**	: 08/22/16 13:00
Client ID	: SW-PAB-03-082216	**Date Received**	: 08/23/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/30/16 16:34
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301609	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.442	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: L1626448-05	**Date Collected**	: 08/22/16 17:45
Client ID	: SW-PMB-02-082216	**Date Received**	: 08/23/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/30/16 18:55
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301612	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.147	0.0735	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: L1626448-06	**Date Collected**	: 08/22/16 16:00
Client ID	: SW-MRB-01-082216	**Date Received**	: 08/23/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/30/16 19:39
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301613	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.147	0.0735	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: L1626448-07	**Date Collected**	: 08/22/16 10:00
Client ID	: SW-NOB-01-082216	**Date Received**	: 08/23/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/30/16 20:23
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301614	**Analyst**	: WR
Sample Amount	: 460 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.163	0.0815	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: L1626448-08	**Date Collected**	: 08/22/16 16:00
Client ID	: RW-12 (55-65)-082216	**Date Received**	: 08/23/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/30/16 21:07
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301615	**Analyst**	: WR
Sample Amount	: 460 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.163	0.0815	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: L1626448-09	**Date Collected**	: 08/22/16 13:00
Client ID	: RW-2 (452-462)-082216	**Date Received**	: 08/23/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/30/16 21:51
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301616	**Analyst**	: WR
Sample Amount	: 410 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.901	0.183	0.0915	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: L1626448-10	**Date Collected**	: 08/22/16 11:05
Client ID	: RW-2 (279-289)-082216	**Date Received**	: 08/23/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/30/16 22:35
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301617	**Analyst**	: WR
Sample Amount	: 460 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	11.9	0.163	0.0815	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: L1626448-11	**Date Collected**	: 08/22/16 13:20
Client ID	: CMP-160-082216	**Date Received**	: 08/23/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/30/16 23:18
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301618	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.0786	0.147	0.0735	J

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: L1626448-12	**Date Collected**	: 08/22/16 11:40
Client ID	: CMP-100-082216	**Date Received**	: 08/23/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/31/16 00:02
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301619	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.147	0.0735	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: L1626448-13	**Date Collected**	: 08/22/16 14:50
Client ID	: CMP-275-082216	**Date Received**	: 08/23/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/31/16 00:46
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301620	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.163	0.150	0.0750	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: L1626448-14	**Date Collected**	: 08/22/16 10:30
Client ID	: CMP-50-082216	**Date Received**	: 08/23/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/31/16 01:29
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301621	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.147	0.0735	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: L1626448-15	**Date Collected**	: 08/23/16 07:03
Client ID	: SW-PMB-01-082316	**Date Received**	: 08/23/16
Sample Location	: RIDGEWOOD, NJ	**Date Analyzed**	: 08/31/16 02:13
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301622	**Analyst**	: WR
Sample Amount	: 460 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.163	0.0815	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab ID	: WG926422-1	**Date Collected**	: NA
Client ID	: WG926422-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/30/16 12:11
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608301603	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 2
Surrogate Recovery
SEMIVOLATILES

Client: Cornerstone Environmental Group, LLC
Project Name: FORD-RIDGEWOOD

Lab Number: L1626448
Project Number:
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 ()	S2 ()	S3 ()	S4 ()	S5 ()	S6 ()	TOT OUT
CMP-100-082216 (L1626448-12)	25	--	--	--	--	--	0
CMP-160-082216 (L1626448-11)	21	--	--	--	--	--	0
CMP-275-082216 (L1626448-13)	22	--	--	--	--	--	0
CMP-50-082216 (L1626448-14)	21	--	--	--	--	--	0
DUP-03-082216 (L1626448-02)	23	--	--	--	--	--	0
WG926422-3LCSD	25	--	--	--	--	--	0
WG926422-2LCS	24	--	--	--	--	--	0
WG926422-1BLANK	28	--	--	--	--	--	0
PMP-POND-082216 (L1626448-01)	23	--	--	--	--	--	0
RW-12 (55-65)-082216 (L1626448-08)	22	--	--	--	--	--	0
RW-2 (279-289)-082216 (L1626448-10)	22	--	--	--	--	--	0
RW-2 (452-462)-082216 (L1626448-09)	25	--	--	--	--	--	0
SW-MRB-01-082216 (L1626448-06)	22	--	--	--	--	--	0
SW-NOB-01-082216 (L1626448-07)	26	--	--	--	--	--	0
SW-PAB-02-082216 (L1626448-03)	22	--	--	--	--	--	0
SW-PAB-03-082216 (L1626448-04)	24	--	--	--	--	--	0
SW-PMB-01-082316 (L1626448-15)	25	--	--	--	--	--	0
SW-PMB-02-082216 (L1626448-05)	21	--	--	--	--	--	0

	QC LIMITS
S1 = 1,4-DIOXANE-D8	(15-110)

* Values outside of QC limits

FORM II A2-14-DIOXANESIM-PPB

Laboratory Control Sample
Form 3

Client	: Cornerstone Environmental Group, LL			**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD			**Project Number**	:
Matrix	: WATER				
LCS Sample ID	: WG926422-2	**Analysis Date :**	08/30/16 12:54	**File ID**	: F608301604
LCSD Sample ID	: WG926422-3	**Analysis Date :**	08/30/16 13:38	**File ID**	: F608301605

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (ug/l)**	**Found (ug/l)**	**%R**	**True (ug/l)**	**Found (ug/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
1,4-Dioxane	5	5.46	109	5	5.58	112	3	40-140	30

Method Blank Summary
Form 4

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Lab Sample ID	: WG926422-1	**Lab File ID**	: F608301603
Instrument ID	: BNA6	**Extraction Date**	: 08/26/16
Matrix	: WATER	**Analysis Date**	: 08/30/16 12:11
Level	: LOW		

Client Sample No.	Lab Sample ID	Analysis Date
WG926422-2LCS	WG926422-2	08/30/16 12:54
WG926422-3LCSD	WG926422-3	08/30/16 13:38
PMP-POND-082216	L1626448-01	08/30/16 14:22
DUP-03-082216	L1626448-02	08/30/16 15:06
SW-PAB-02-082216	L1626448-03	08/30/16 15:50
SW-PAB-03-082216	L1626448-04	08/30/16 16:34
SW-PMB-02-082216	L1626448-05	08/30/16 18:55
SW-MRB-01-082216	L1626448-06	08/30/16 19:39
SW-NOB-01-082216	L1626448-07	08/30/16 20:23
RW-12 (55-65)-082216	L1626448-08	08/30/16 21:07
RW-2 (452-462)-082216	L1626448-09	08/30/16 21:51
RW-2 (279-289)-082216	L1626448-10	08/30/16 22:35
CMP-160-082216	L1626448-11	08/30/16 23:18
CMP-100-082216	L1626448-12	08/31/16 00:02
CMP-275-082216	L1626448-13	08/31/16 00:46
CMP-50-082216	L1626448-14	08/31/16 01:29
SW-PMB-01-082316	L1626448-15	08/31/16 02:13

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Instrument ID	: BNA6	**Analysis Date**	: 08/10/16 13:25
Tune Standard	: R891220-9	**Tune File ID**	: F608101603_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	28.1
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	38.3
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.8
275	10.0 - 60.0% of Base Peak	28.4
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	15.6
442	Base Peak, or >50% of mass 198	94.3
443	15.0 - 24.0% of mass 442	18.3 (19.4)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD 10	R891220-2	F608101604	08/10/16 14:22
STD 50	R891220-3	F608101605	08/10/16 15:07
STD 100	R891220-4	F608101606	08/10/16 15:51
STD 500	R891220-5	F608101607	08/10/16 16:36
STD 1000	R891220-1	F608101608	08/10/16 17:21
STD 5000	R891220-6	F608101609	08/10/16 18:06
STD 10000	R891220-7	F608101610	08/10/16 18:51
ICV Quant Report STD 1000	R891220-8	F608101611	08/10/16 19:36

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Instrument ID	: BNA6	**Analysis Date**	: 08/30/16 09:47
Tune Standard	: WG927023-1	**Tune File ID**	: F608301601_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	28
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.1 (.6)1
127	10.0 - 80.0% of Base Peak	38.2
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.8
275	10.0 - 60.0% of Base Peak	28.3
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	15.7
442	Base Peak, or >50% of mass 198	95.2
443	15.0 - 24.0% of mass 442	18 (18.9)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG927023-3CCAL	WG927023-3	F608301602	08/30/16 10:42
WG926422-1BLANK	WG926422-1	F608301603	08/30/16 12:11
WG926422-2LCS	WG926422-2	F608301604	08/30/16 12:54
WG926422-3LCSD	WG926422-3	F608301605	08/30/16 13:38
PMP-POND-082216	L1626448-01	F608301606	08/30/16 14:22
DUP-03-082216	L1626448-02	F608301607	08/30/16 15:06
SW-PAB-02-082216	L1626448-03	F608301608	08/30/16 15:50
SW-PAB-03-082216	L1626448-04	F608301609	08/30/16 16:34

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Instrument ID	: BNA6	**Analysis Date**	: 08/30/16 17:14
Tune Standard	: WG927023-4	**Tune File ID**	: F608301610_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	27.7
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	37.6
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.8
275	10.0 - 60.0% of Base Peak	28.8
365	Greater than 1.0% of mass 198	2.9
441	Present, but less than 24% of mass 442	15.6
442	Base Peak, or >50% of mass 198	96.1
443	15.0 - 24.0% of mass 442	18.4 (19.2)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG927023-6CCAL	WG927023-6	F608301611	08/30/16 18:11
SW-PMB-02-082216	L1626448-05	F608301612	08/30/16 18:55
SW-MRB-01-082216	L1626448-06	F608301613	08/30/16 19:39
SW-NOB-01-082216	L1626448-07	F608301614	08/30/16 20:23
RW-12 (55-65)-082216	L1626448-08	F608301615	08/30/16 21:07
RW-2 (452-462)-082216	L1626448-09	F608301616	08/30/16 21:51
RW-2 (279-289)-082216	L1626448-10	F608301617	08/30/16 22:35
CMP-160-082216	L1626448-11	F608301618	08/30/16 23:18
CMP-100-082216	L1626448-12	F608301619	08/31/16 00:02
CMP-275-082216	L1626448-13	F608301620	08/31/16 00:46
CMP-50-082216	L1626448-14	F608301621	08/31/16 01:29
SW-PMB-01-082316	L1626448-15	F608301622	08/31/16 02:13

Initial Calibration Summary
Form 6

Client	**: Cornerstone Environmental Group, LL**	**Lab Number**	**: L1626448**
Project Name	**: FORD-RIDGEWOOD**	**Project Number**	**:**
Instrument ID	**: BNA6**	**Ical Ref**	**: ICAL12751**
Calibration dates	**: 08/10/16 14:22 08/10/16 18:51**		

Calibration Files
10 =F608101604.D 50 =F608101605.D 100 =F608101606.D 500 =F608101607.D 1000=F608101608.D
5000=F608101609.D 1e4 =F608101610.D

	Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)	1,4-Dioxane-d8 (IS)	----------ISTD----------								
2)	1,4-dioxane	1.556	1.402	1.394	1.386	1.470	1.417	1.405	1.433	4.24
3) I	1,4-Dichlorobenzene-d4	----------ISTD----------								
4) s	1,4-dioxane-d8	0.428	0.444	0.423	0.441	0.417	0.442	0.435	0.433	2.41

Continuing Calibration
Form 7

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448	
Project Name	: FORD-RIDGEWOOD	**Project Number**	:	
Instrument ID	: BNA6	**Calibration Date**	: 08/30/16 10:42	
Lab File ID	: F608301602	**Init. Calib. Date(s)**	: 08/10/16	08/10/16
Sample No	: WG927023-3	**Init. Calib. Times**	: 14:22	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	84	-.06
1,4-dioxane	1.433	1.43	-	0.2	20	82	-.06
1,4-Dichlorobenzene-d4	1	1	-	0	20	90	-.09
1,4-dioxane-d8	0.433	0.391	-	9.7	20	83	-.06

* Value outside of QC limits.

Continuing Calibration
Form 7

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448	
Project Name	: FORD-RIDGEWOOD	**Project Number**	:	
Instrument ID	: BNA6	**Calibration Date**	: 08/30/16 18:11	
Lab File ID	: F608301611	**Init. Calib. Date(s)**	: 08/10/16	08/10/16
Sample No	: WG927023-6	**Init. Calib. Times**	: 14:22	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	84	-.06
1,4-dioxane	1.433	1.43	-	0.2	20	82	-.06
1,4-Dichlorobenzene-d4	1	1	-	0	20	92	-.09
1,4-dioxane-d8	0.433	0.38	-	12.2	20	83	-.06

* Value outside of QC limits.

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Instrument ID	: BNA6	**Analysis Date**	: 08/30/16 10:42
Sample No	: WG927023-3	**Lab File ID**	: F608301602

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG927023-3	180519	15.42				
Upper Limit	361038	15.92				
Lower Limit	90260	14.92				
Sample ID						
WG926422-1 BLANK	186407	15.41				
WG926422-2 LCS	176001	15.42				
WG926422-3 LCSD	169901	15.42				
PMP-POND-082216	171207	15.42				
DUP-03-082216	174846	15.43				
SW-PAB-02-082216	161848	15.42				
SW-PAB-03-082216	160241	15.42				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626448
Project Name	: FORD-RIDGEWOOD	**Project Number**	:
Instrument ID	: BNA6	**Analysis Date**	: 08/30/16 18:11
Sample No	: WG927023-6	**Lab File ID**	: F608301611

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG927023-6	184642	15.42				
Upper Limit	369284	15.92				
Lower Limit	92321	14.92				
Sample ID						
SW-PMB-02-082216	173138	15.42				
SW-MRB-01-082216	162401	15.42				
SW-NOB-01-082216	164023	15.42				
RW-12 (55-65)-082216	188663	15.42				
RW-2 (452-462)-082216	187078	15.42				
RW-2 (279-289)-082216	179436	15.42				
CMP-160-082216	173156	15.42				
CMP-100-082216	164116	15.42				
CMP-275-082216	165213	15.42				
CMP-50-082216	168343	15.42				
SW-PMB-01-082316	168202	15.42				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

ALPHA ANALYTICAL

World Class Chemistry

www.alphalab.com

Lab Number: L1626610

Client: Cornerstone/Cadena Co. joint acc

ATTN: Jim Tomalia

Project Name: FORD-RINGWOOD

Project Number: 140802-015

September 20, 2016

Data Deliverable Revision Narrative
Alpha SDG: L1626610
Client: Cornerstone Environmental Group, LLC
Site: FORD-RINGWOOD

This data package replaces the data package issued on September 9, 2016. The package type has changed to DPKG-FULL.

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Sample Delivery Group Information

Sample Delivery Group Form

Laboratory Job number: L1626610
Project Manager: Nichole Hunt **Review Date:** 08/26/2016
Project Number: 140802-015
Project Name: FORD-RINGWOOD **Received:** 08/24/2016 07:20
Client Account: Cornerstone/Cadena Co. joint account **Received by:** BB

Samples Delivered by: COURIER **Call Tracker #**
Bill Of Laden N/A **Trackingnum**
Coc Present Present

Container Status Intact **Sample IDs**

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt 7 **Are samples Properly Preserved?** Yes
Initial pH **preserved in house with** **Final pH**
Other Issues
Chlorine Check N/A

Are VOA/VPH Vials Present? No
Aqueous: Do Vials Contain Head Space? N/A
Soils: Is MeOHCovering the Soil? N/A
Reagent H2O Preserved vials Frozen on N/A
Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
A	Absent	Yes	No	3.7 - IR Gun	No	No

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 29 2016, 05:54 pm

Login Number: L1626610

Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015

Received: 24AUG16 Due Date: 31AUG16

Sample #	Client ID	Mat	PR	Collected	Container
L1626610-01	RW-11D (262-267)-08	1	S0	23AUG16 09:05	2-Amber-A.5
| DPKG-FULL Package Due Date: 08/31/16					
A2-14-DIOXANESIM-PPB,DPKG-FULL,NJDEP					
L1626610-02	PMP-AS-180-082316	1	S0	23AUG16 10:25	2-Amber-A.5
| Package Due Date: 08/31/16					
A2-14-DIOXANESIM-PPB					
L1626610-03	PMP-AS-50-082316	1	S0	23AUG16 09:10	2-Amber-A.5
| Package Due Date: 08/31/16					
A2-14-DIOXANESIM-PPB					
L1626610-04	PMP-AS-230-082316	1	S0	23AUG16 13:25	2-Amber-A.5
| Package Due Date: 08/31/16					
A2-14-DIOXANESIM-PPB					
L1626610-05	RW-11S (236-244)-08	1	S0	23AUG16 12:15	2-Amber-A.5
| Package Due Date: 08/31/16					
A2-14-DIOXANESIM-PPB					
L1626610-06	RW-3DD (125-180)-08	1	S0	23AUG16 13:25	2-Amber-A.5
| Package Due Date: 08/31/16					
A2-14-DIOXANESIM-PPB					
L1626610-07	RW-3DS (155-160)-08	1	S0	23AUG16 15:00	2-Amber-A.5
| Package Due Date: 08/31/16					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 29 2016, 05:54 pm

Login Number: L1626610

Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015

Received: 24AUG16 Due Date: 31AUG16

Sample #	Client ID	Mat	PR	Collected	Container
A2-14-DIOXANESIM-PPB					

Logged By: Nichole Hunt

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1626610-01A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626610-01A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626610-01A	Amber-A.5	INTACT	25-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L1626610-01A	Amber-A.5	INTACT	25-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626610-01B	Amber-A.5	DISPOSED	27-SEP-16	CUSTODY	A2-CUSTODY-REFRIG-B1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1626610-01B	Amber-A.5	INTACT	25-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L1626610-01B	Amber-A.5	INTACT	25-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626610-02A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626610-02A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626610-02A	Amber-A.5	INTACT	25-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L1626610-02A	Amber-A.5	INTACT	25-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626610-02B	Amber-A.5	DISPOSED	27-SEP-16	CUSTODY	A2-CUSTODY-REFRIG-B1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1626610-02B	Amber-A.5	INTACT	25-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L1626610-02B	Amber-A.5	INTACT	25-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626610-03A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626610-03A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626610-03A	Amber-A.5	INTACT	25-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L1626610-03A	Amber-A.5	INTACT	25-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626610-03B	Amber-A.5	DISPOSED	27-SEP-16	CUSTODY	A2-CUSTODY-REFRIG-B1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1626610-03B	Amber-A.5	INTACT	25-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L1626610-03B	Amber-A.5	INTACT	25-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626610-04A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626610-04A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626610-04A	Amber-A.5	INTACT	25-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L1626610-04A	Amber-A.5	INTACT	25-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1626610-04B	Amber-A.5	DISPOSED	27-SEP-16	CUSTODY	A2-CUSTODY-REFRIG-B1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1626610-04B	Amber-A.5	INTACT	25-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L1626610-04B	Amber-A.5	INTACT	25-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626610-05A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626610-05A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626610-05A	Amber-A.5	INTACT	25-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L1626610-05A	Amber-A.5	INTACT	25-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626610-05B	Amber-A.5	DISPOSED	27-SEP-16	CUSTODY	A2-CUSTODY-REFRIG-B1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1626610-05B	Amber-A.5	INTACT	25-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L1626610-05B	Amber-A.5	INTACT	25-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626610-06A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626610-06A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626610-06A	Amber-A.5	INTACT	25-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L1626610-06A	Amber-A.5	INTACT	25-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626610-06B	Amber-A.5	EMPTY	06-SEP-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Daniel Robbins	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Daniel Robbins
L1626610-06B	Amber-A.5	INTACT	06-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1626610-06B	Amber-A.5	INTACT	25-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L1626610-06B	Amber-A.5	INTACT	25-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard
L1626610-07A	Amber-A.5	EMPTY	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1626610-07A	Amber-A.5	INTACT	26-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-B1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626610-07A	Amber-A.5	INTACT	25-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L1626610-07A	Amber-A.5	INTACT	25-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1626610-07B	Amber-A.5	DISPOSED	27-SEP-16	CUSTODY	A2-CUSTODY-REFRIG-B1	Michael Haley	A2-DISPOSAL	A2-DISPOSAL	Michael Haley
L1626610-07B	Amber-A.5	INTACT	25-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-B1	A2-CUSTODY-REFRIG-B1	Bethany Bedard
L1626610-07B	Amber-A.5	INTACT	25-AUG-16	LOGIN	LOGIN	Bethany Bedard	CUSTODY	CUSTODY	Bethany Bedard

Chain of Custody

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab 8/25/16

ALPHA Job # L1626610

Client Information

Client: Comstock Env. Group
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information

Project Name: Ford - Ringwood
Project Location: Ringwood, NJ
Project # 140802-015
(Use Project name as Project #) ☐
Project Manager: Tim Cooper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information

☐ Same as Client Info
PO #

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

1,4 Dioxane SIM - PP8

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	1,4 Dioxane SIM - PP8	Sample Specific Comments
26600-01	RW-11D(262-267)-082316	8/23/16	09:05	GW	[illegible]	✓	
-02	PMP-AS-180-082316	8/23/16	10:25	GW	[illegible]	✓	
-03	PMP-AS-50-082316	8/23/16	09:10	GW	[illegible]	✓	
-04	PMP-AS-230-082316	8/23/16	13:25	GW	[illegible]	✓	
-05	RW-11S(236-241)-082316	8/23/16	12:15	GW	[illegible]	✓	
-06	RW-3DD(175-180)-082316	8/23/16	13:25	GW	[illegible]	✓	
-07	RW-3DS(155-160)-082316	8/23/16	15:00	GW	[illegible]	✓	

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
F = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	A
Preservative	A

Relinquished By:	Date/Time	Received By:	Date/Time
[illegible]	8/24/16 07:20	BOBaler APC	8-24-16 7:38
BOBaler	8-24-16 1810	Tom Tobin	8-24-16 1810
Tom Tobin	8-25-16 0135	[illegible]	8/25/16 00:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Organics

GCMS Extractables 1,4-Dioxane By SIM

Initial Calibration

Response Factor Report BNA6

Method Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Method File : 14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016
Response Via : Initial Calibration

Calibration Files
10 =F608101604.D 50 =F608101605.D 100 =F608101606.D 500 =F608101607.D 1000=F608101608.D
5000=F608101609.D 1e4 =F608101610.D

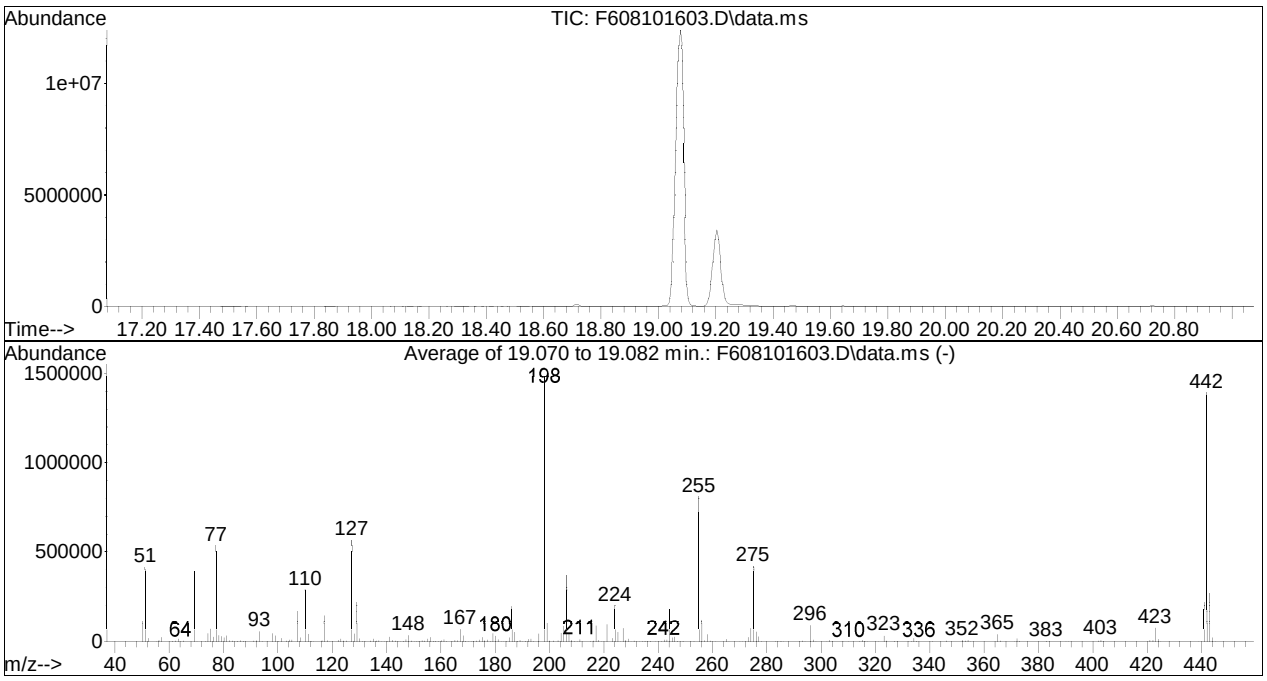
	Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)	1,4-Dioxane-d8 (IS)	ISTD								
2)	1,4-dioxane	1.556	1.402	1.394	1.386	1.470	1.417	1.405	1.433	4.24
3) I	1,4-Dichlorobenzene-d4	ISTD								
4) s	1,4-dioxane-d8	0.428	0.444	0.423	0.441	0.417	0.442	0.435	0.433	2.41

(#) = Out of Range

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101603.D
Acq On : 10 Aug 2016 1:25 pm
Operator : BNA6:SF
Sample : T608101601
Misc : WG921943,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



AutoFind: Scans 1879, 1880, 1881; Background Corrected with Scan 1856

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.1	414533	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2219	PASS
127	198	10	80	38.3	565504	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1476097	PASS
199	198	5	9	6.8	100408	PASS
275	198	10	60	28.4	419669	PASS
365	198	1	100	2.8	40728	PASS
441	442	0.01	24	15.6	217472	PASS
442	198	50	100	94.3	1392469	PASS
443	442	15	24	19.4	270059	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101604.D
Acq On : 10 Aug 2016 2:22 pm
Operator : BNA6:SF
Sample : I608101601
Misc : WG921943,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 12:53:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	85056	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.503	152	198789	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	85056	494.380	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 98.88%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.980	88	2647	10.858	ng/mL	98

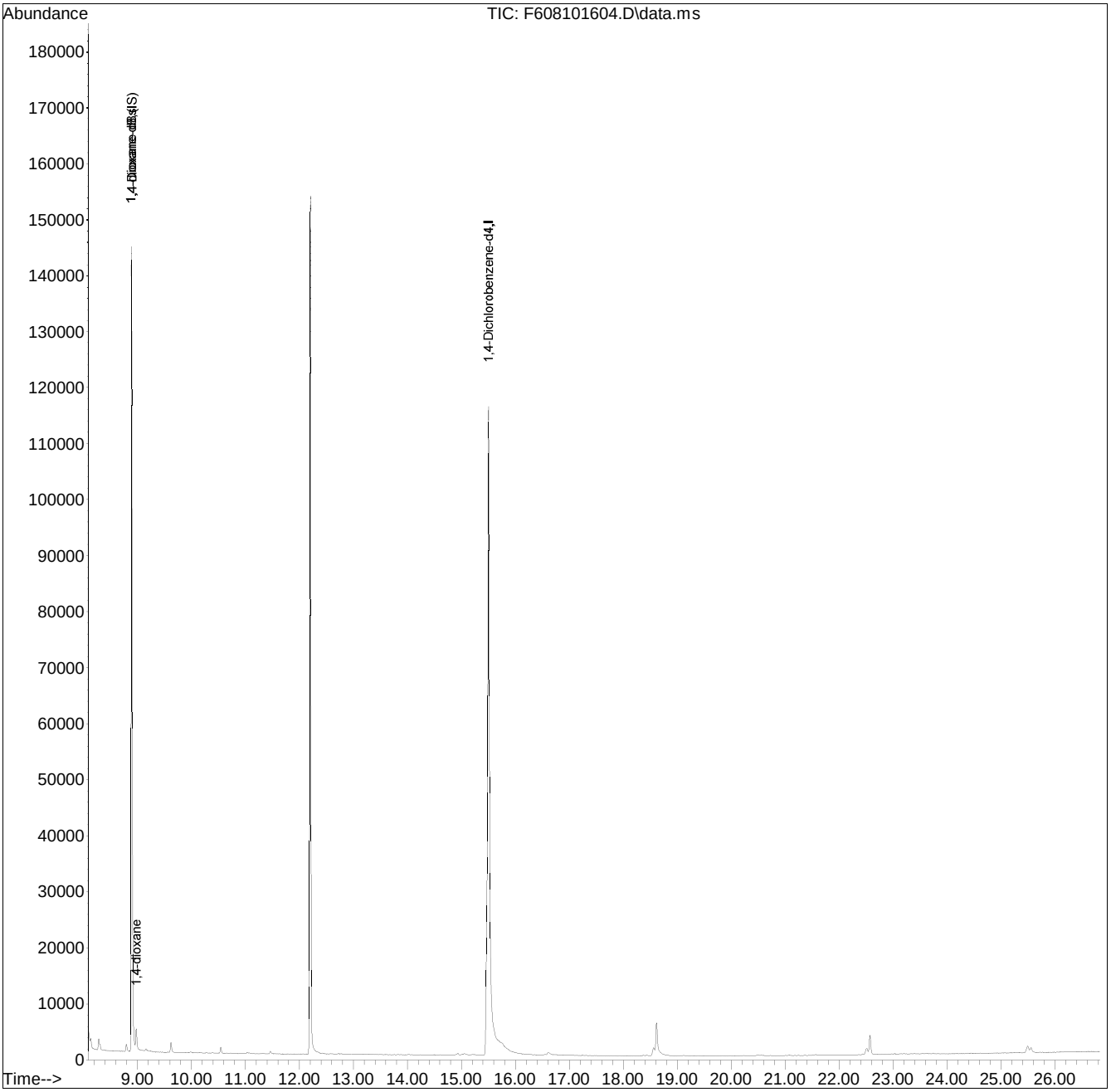
(#) = qualifier out of range (m) = manual integration (+) = signals summed

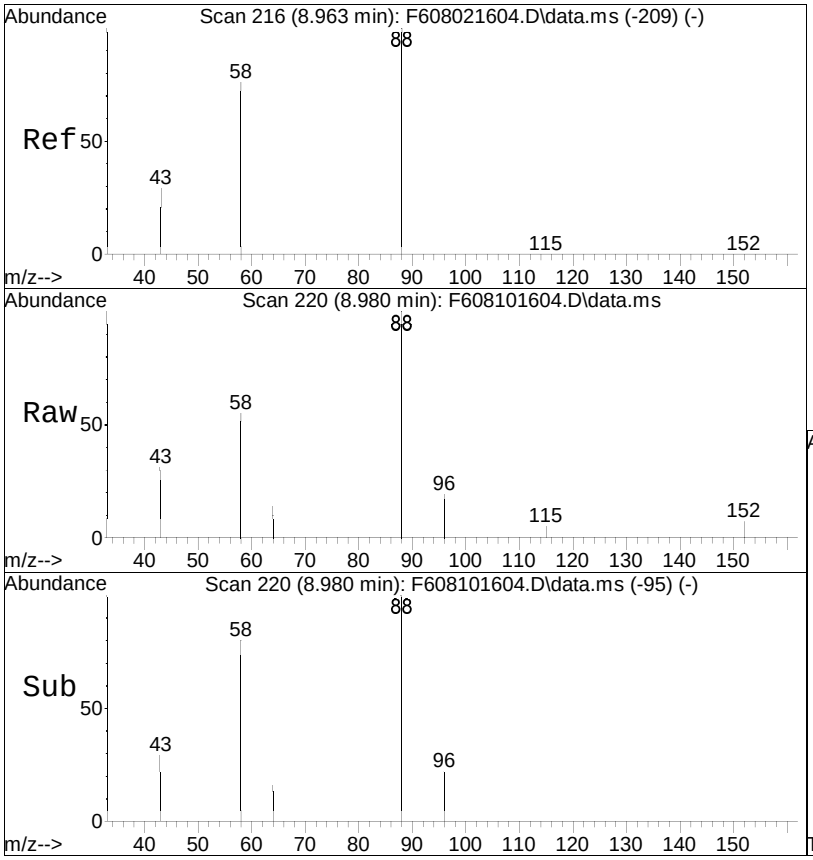
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101604.D
Acq On : 10 Aug 2016 2:22 pm
Operator : BNA6:SF
Sample : I608101601
Misc : WG921943,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 12:53:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

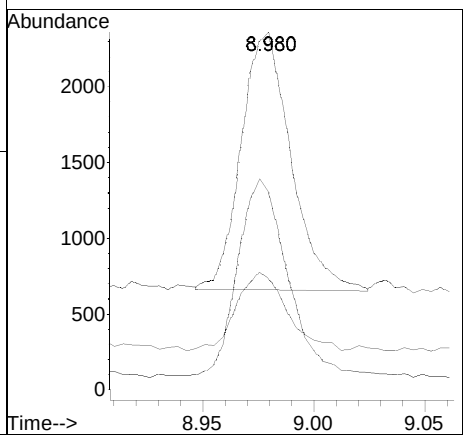




#2
1,4-dioxane
Concen: 10.86 ng/mL
RT: 8.980 min Scan# 220
Delta R.T. 0.008 min
Lab File: F608101604.D
Acq: 10 Aug 2016 2:22 pm

Tgt Ion: 88 Resp: 2647

Ion	Ratio	Lower	Upper
88	100		
58	76.2	62.1	93.1
43	31.4	24.4	36.6



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101604.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 2:22 pm	Instrument	: BNA6
Sample	: I608101601	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101605.D
Acq On : 10 Aug 2016 3:07 pm
Operator : BNA6:SF
Sample : I608101602
Misc : WG921943,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 11 12:53:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	88228	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	198548	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	88228	513.440	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.69%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.984	88	12373	48.930	ng/mL	100

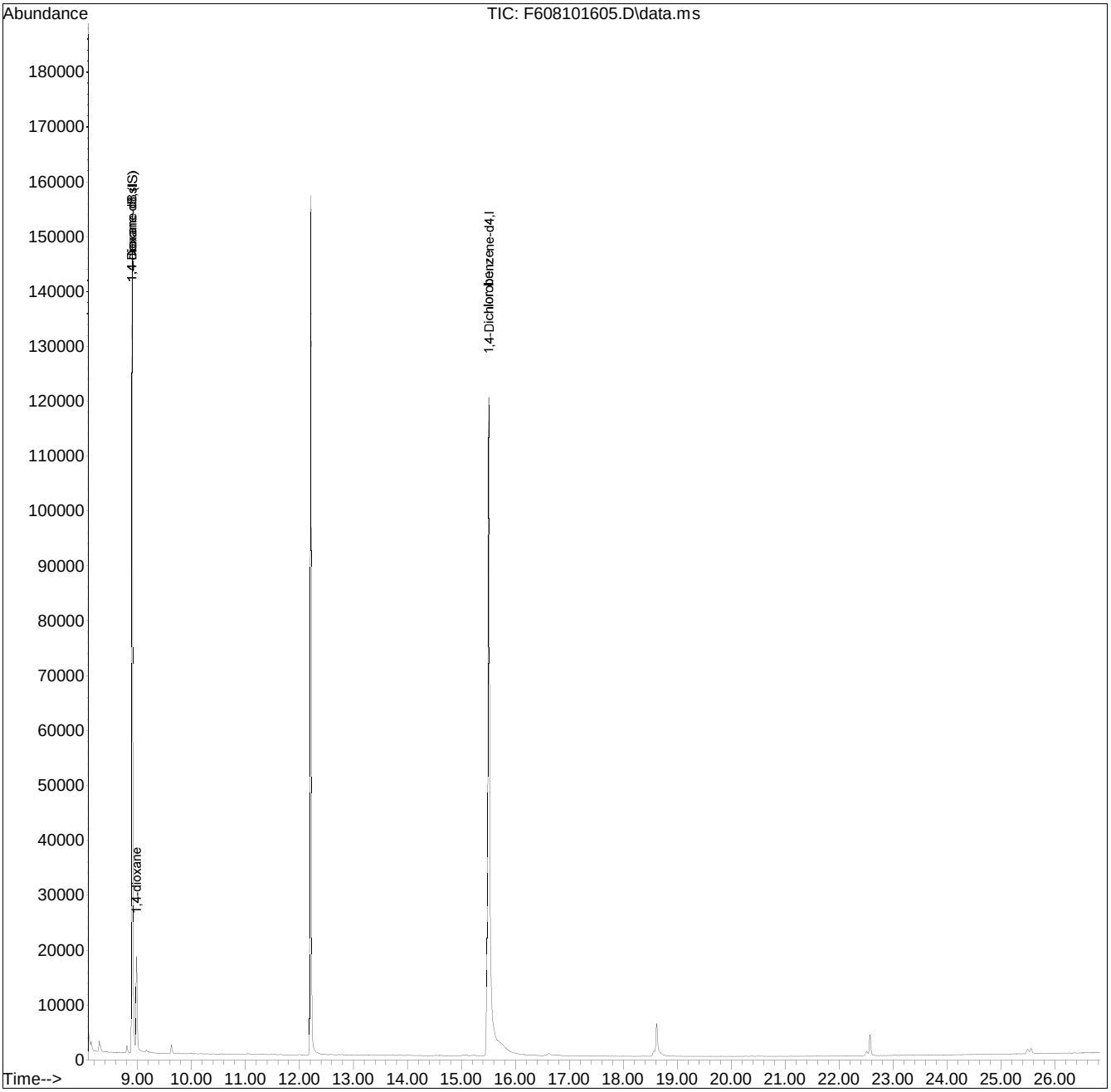
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101605.D
Acq On : 10 Aug 2016 3:07 pm
Operator : BNA6:SF
Sample : I608101602
Misc : WG921943,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 11 12:53:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101605.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 3:07 pm	Instrument	: BNA6
Sample	: I608101602	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101606.D
Acq On : 10 Aug 2016 3:51 pm
Operator : BNA6:SF
Sample : I608101603
Misc : WG921943,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 11 12:53:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

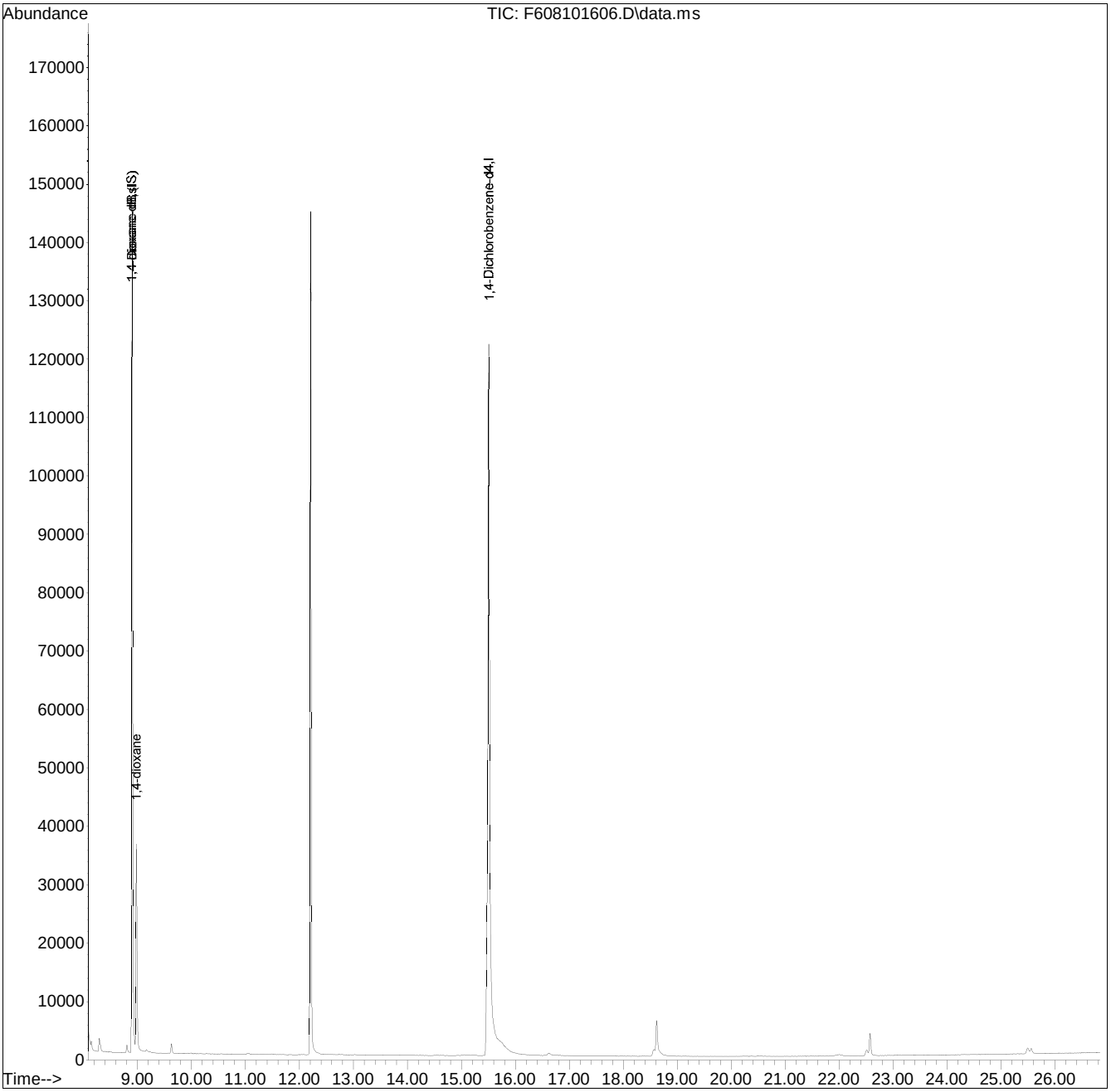
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	86899	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	205668	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	86899	488.199	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 97.64%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.980	88	24230	97.284	ng/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101606.D
Acq On : 10 Aug 2016 3:51 pm
Operator : BNA6:SF
Sample : I608101603
Misc : WG921943,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 11 12:53:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101606.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 3:51 pm	Instrument	: BNA6
Sample	: I608101603	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101607.D
Acq On : 10 Aug 2016 4:36 pm
Operator : BNA6:SF
Sample : I608101604
Misc : WG921943,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 11 12:53:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

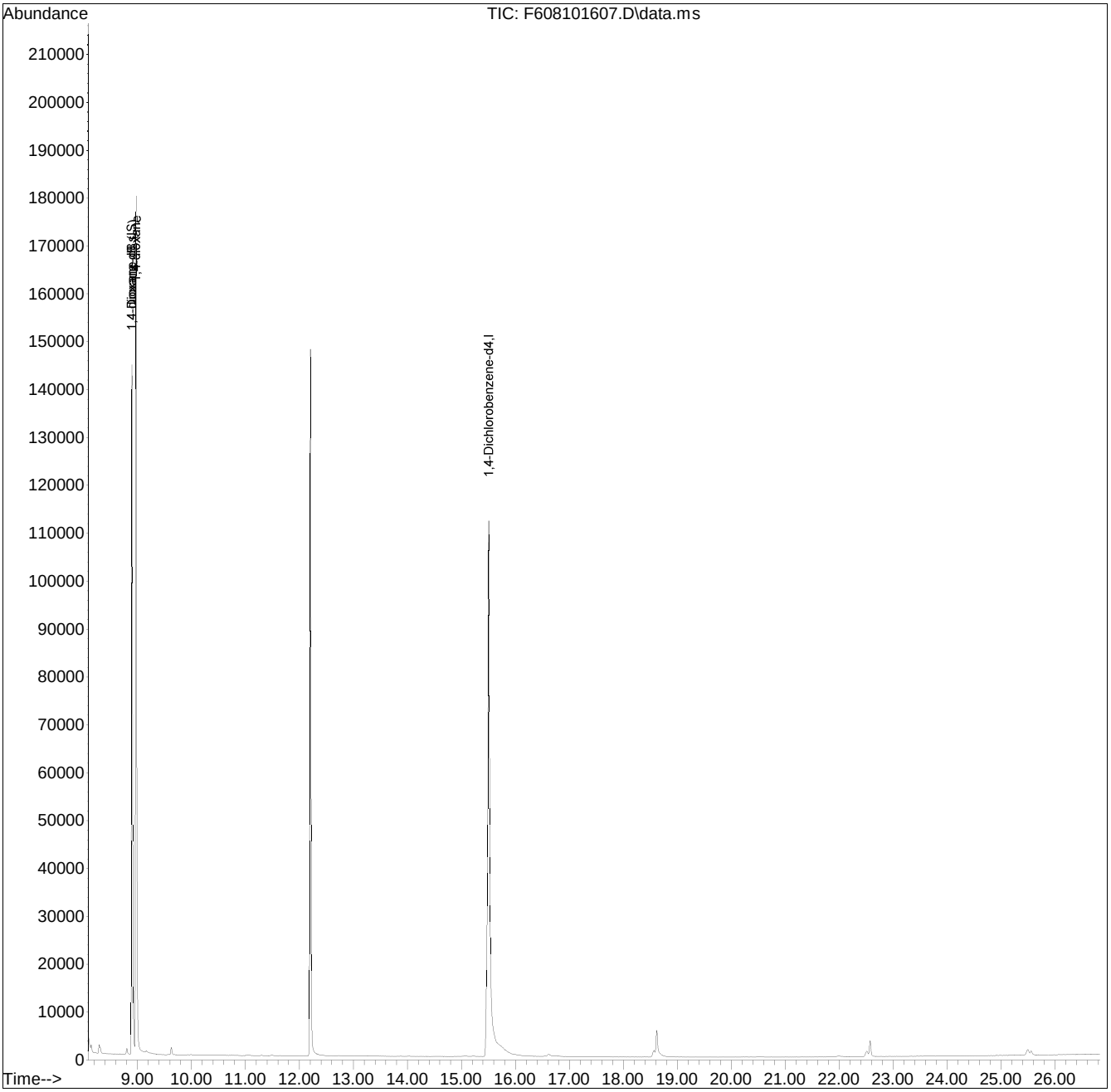
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	86585	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	196925	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	86794M4	509.257	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 101.85%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.972	88	120017M4	483.619	ng/mL	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101607.D
Acq On : 10 Aug 2016 4:36 pm
Operator : BNA6:SF
Sample : I608101604
Misc : WG921943,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 11 12:53:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

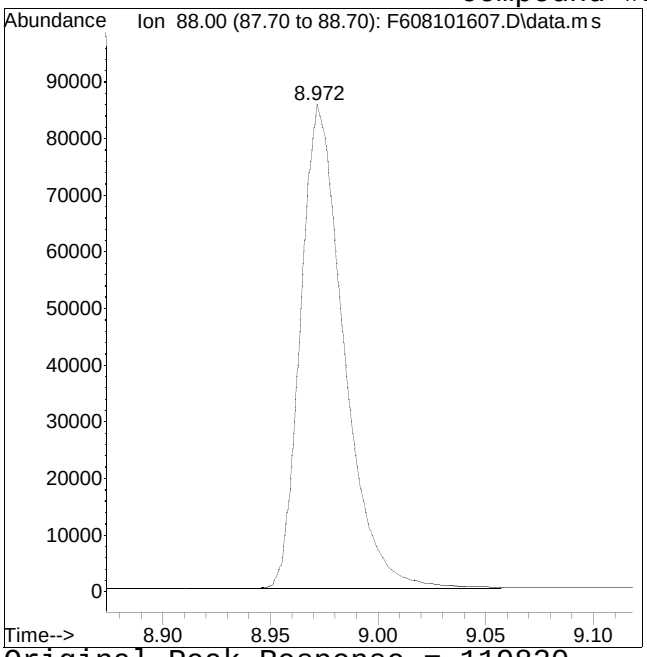
Sub List : Default - All compounds listed



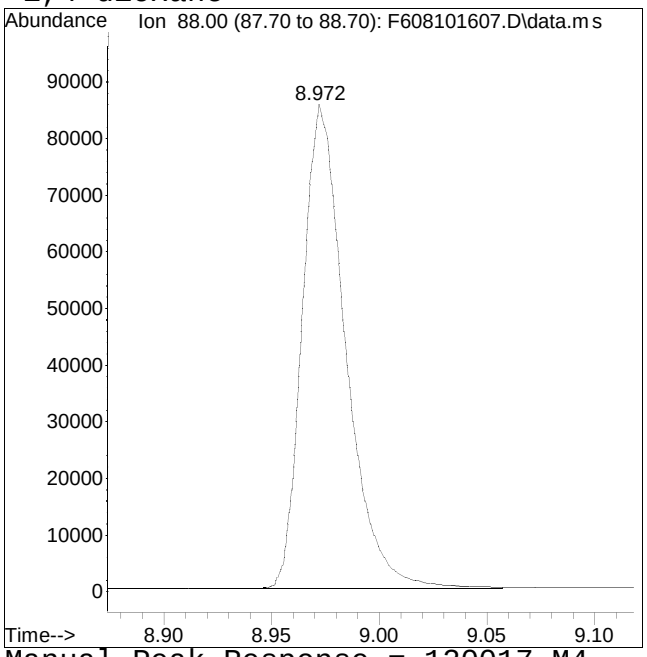
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101607.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 4:36 pm Instrument : BNA6
Sample : I608101604 Quant Date : 8/11/2016 12:53 pm

Compound #2: 1,4-dioxane



Original Peak Response = 119820



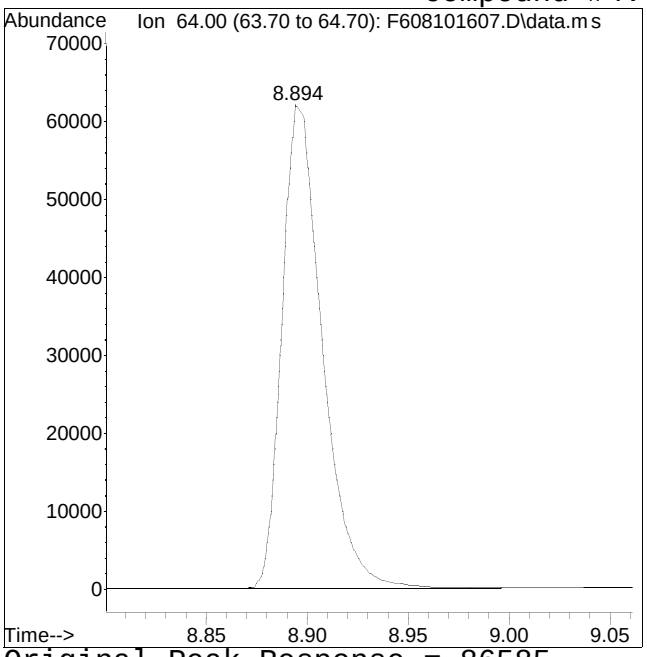
Manual Peak Response = 120017 M4

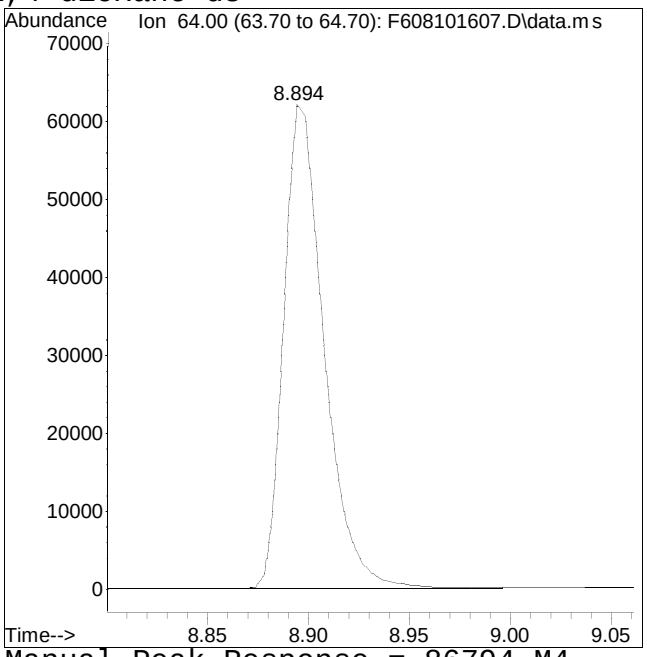
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101607.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 4:36 pm Instrument : BNA6
Sample : I608101604 Quant Date : 8/11/2016 12:53 pm

Compound #4: 1,4-dioxane-d8





Original Peak Response = 86585 Manual Peak Response = 86794 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101608.D
Acq On : 10 Aug 2016 5:21 pm
Operator : BNA6:SF
Sample : I608101605
Misc : WG921943,MSAK15
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 11 12:53:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	83650	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	200518	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	83650	482.016	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 96.40%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.971	88	245983	1025.987	ng/mL	99

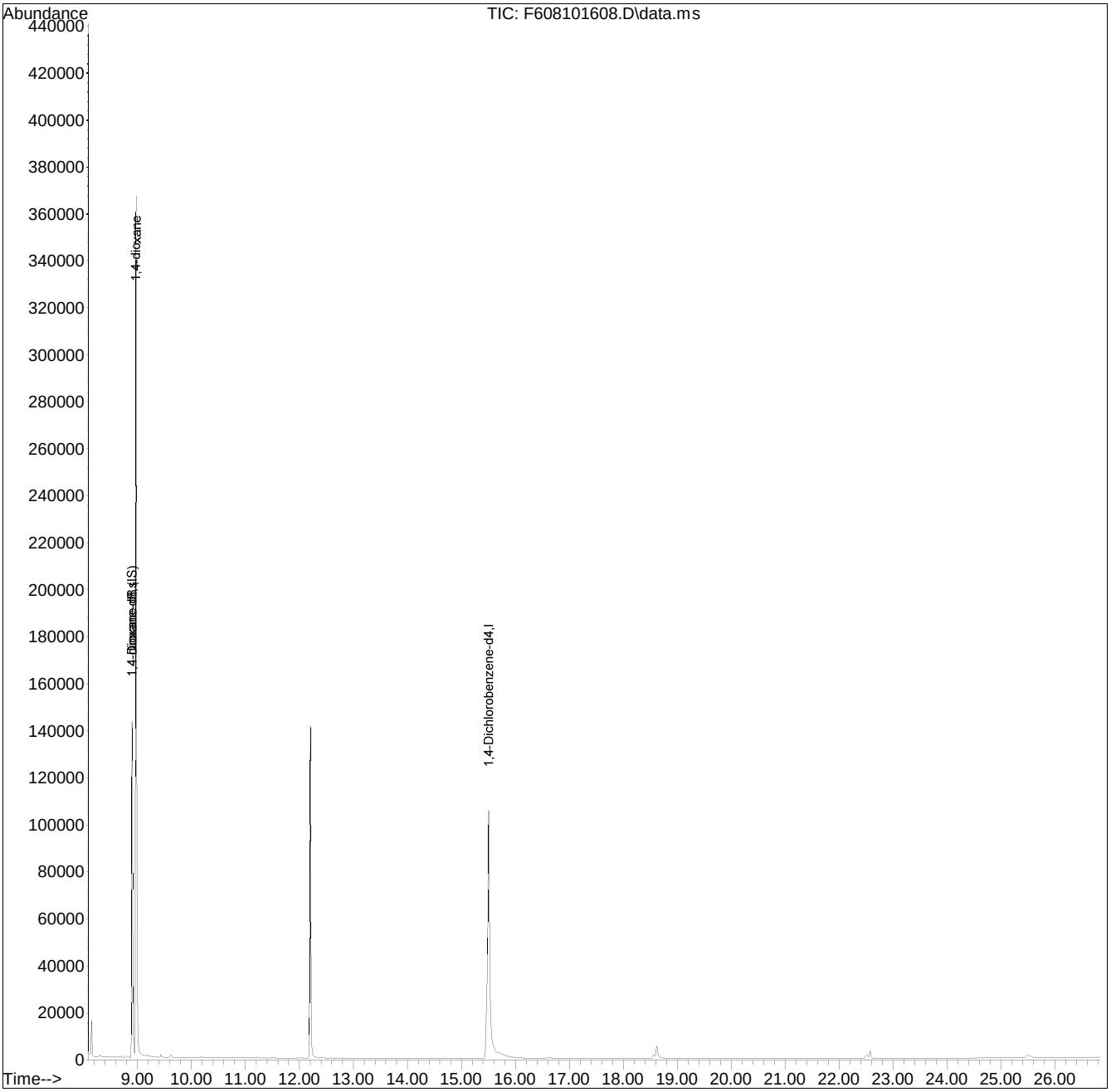
(#) = qualifier out of range (m) = manual integration (+) = signals summed

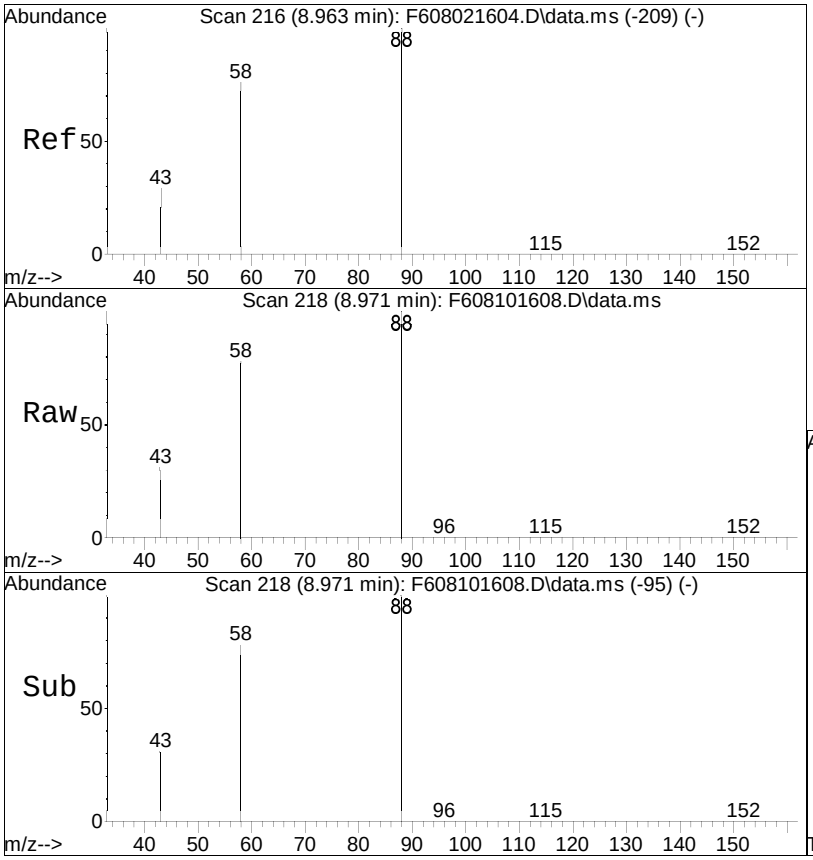
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101608.D
Acq On : 10 Aug 2016 5:21 pm
Operator : BNA6:SF
Sample : I608101605
Misc : WG921943,MSAK15
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 11 12:53:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

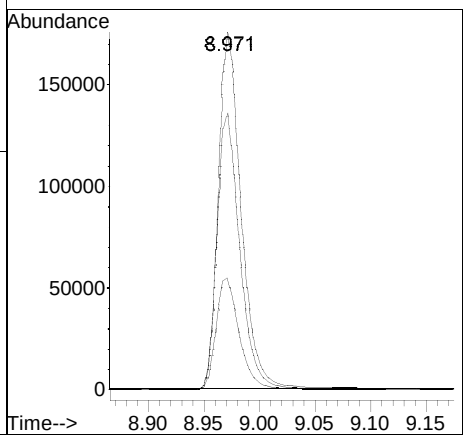




#2
1,4-dioxane
Concen: 1025.99 ng/mL
RT: 8.971 min Scan# 218
Delta R.T. 0.000 min
Lab File: F608101608.D
Acq: 10 Aug 2016 5:21 pm

Tgt Ion: 88 Resp: 245983

Ion	Ratio	Lower	Upper
88	100		
58	78.3	62.1	93.1
43	31.7	24.4	36.6



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101608.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 5:21 pm	Instrument	: BNA6
Sample	: I608101605	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101609.D
Acq On : 10 Aug 2016 6:06 pm
Operator : BNA6:SF
Sample : I608101606
Misc : WG921943,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 11 12:53:40 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

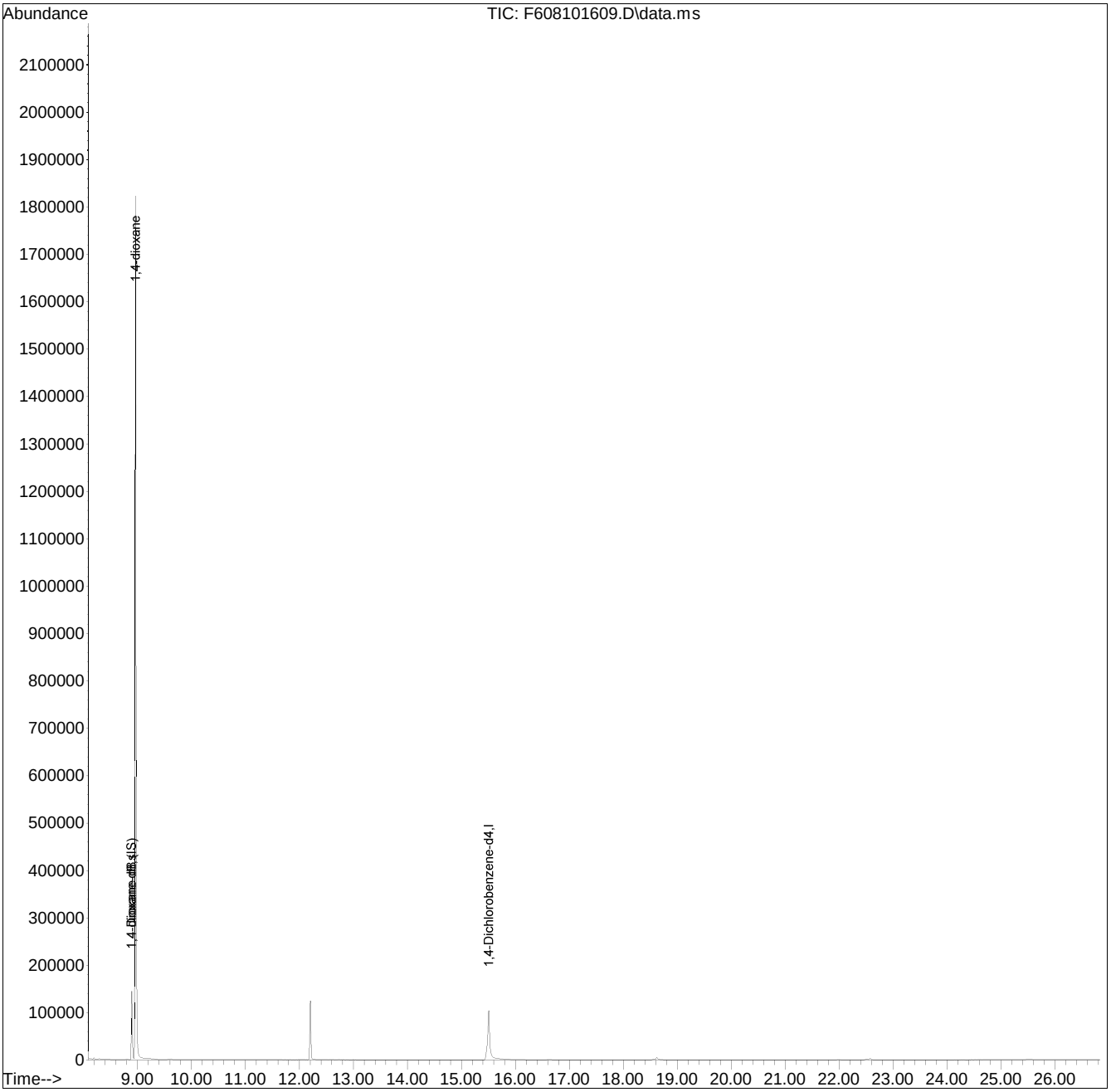
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	84632M4	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	191584	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	84626M4	510.379	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.08%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.963	88	1199636	4945.586	ng/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101609.D
Acq On : 10 Aug 2016 6:06 pm
Operator : BNA6:SF
Sample : I608101606
Misc : WG921943,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 11 12:53:40 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

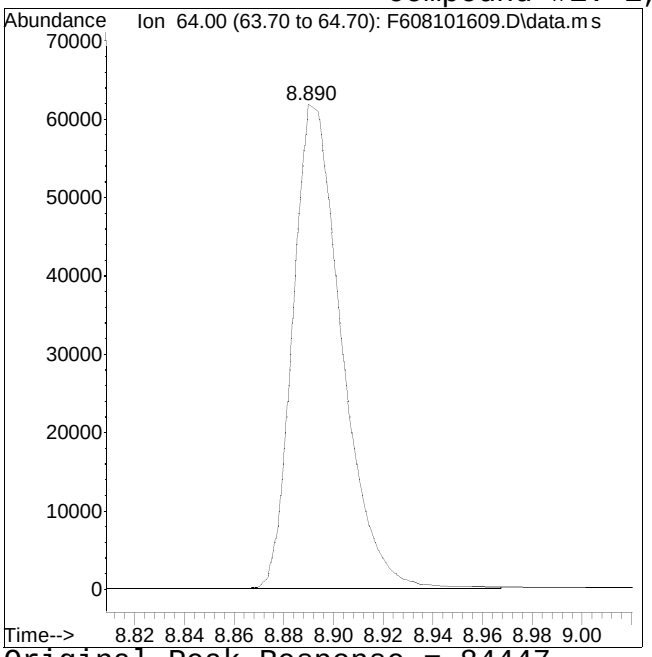
Sub List : Default - All compounds listed

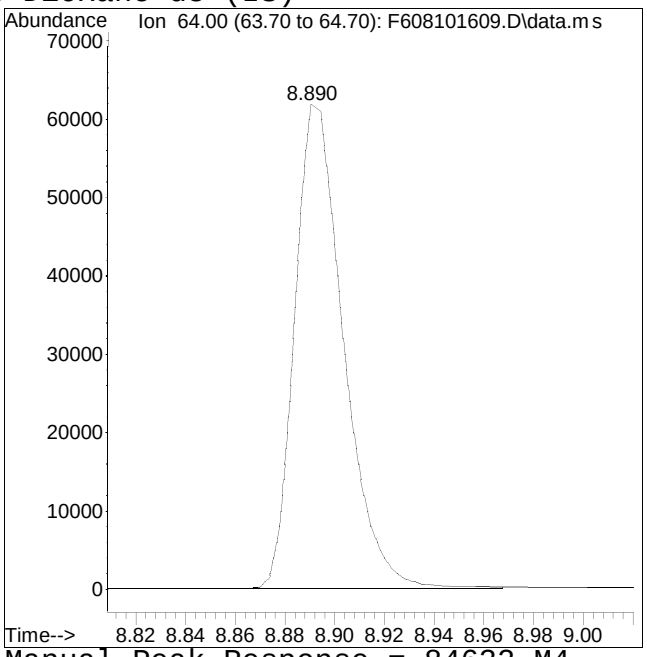


Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101609.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 6:06 pm Instrument : BNA6
Sample : I608101606 Quant Date : 8/11/2016 12:53 pm

Compound #1: 1,4-Dioxane-d8 (IS)



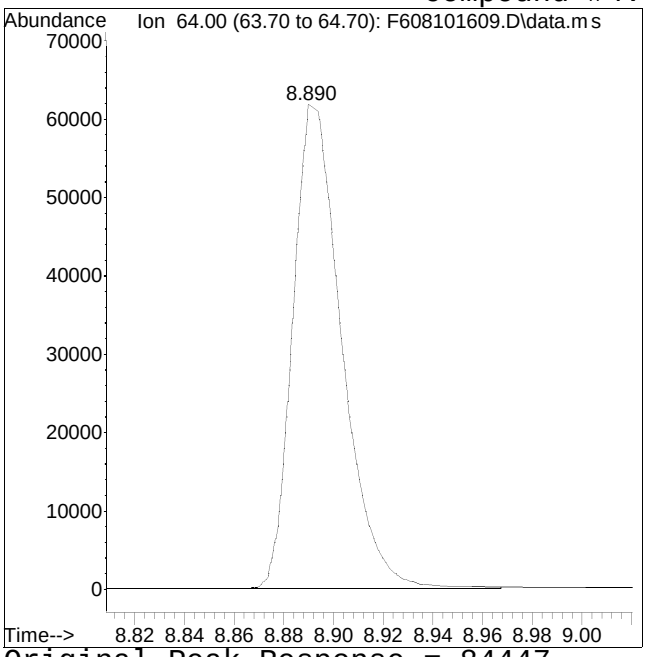


Original Peak Response = 84447 Manual Peak Response = 84632 M4
M4 = Poor automated baseline construction.

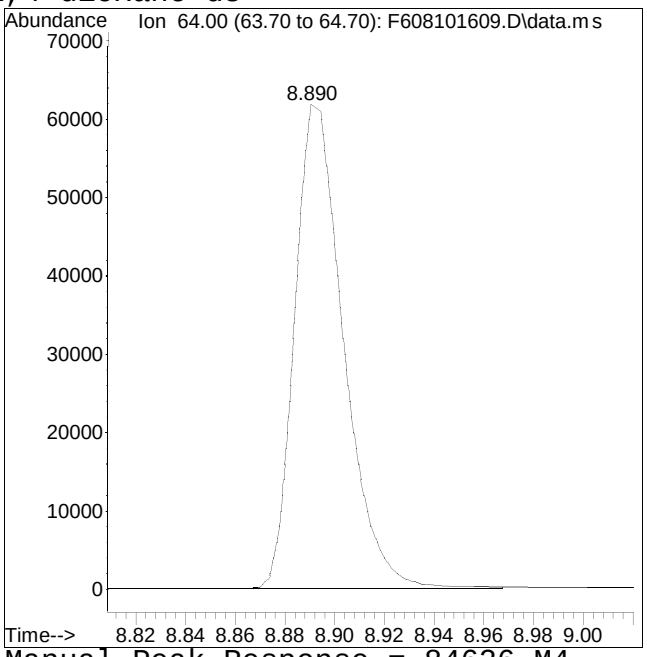
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101609.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 6:06 pm Instrument : BNA6
Sample : I608101606 Quant Date : 8/11/2016 12:53 pm

Compound #4: 1,4-dioxane-d8



Original Peak Response = 84447



Manual Peak Response = 84626 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101610.D
Acq On : 10 Aug 2016 6:51 pm
Operator : BNA6:SF
Sample : I608101607
Misc : WG921943,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 11 12:53:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.882	64	82789	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.503	152	190429	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.882	64	82789	502.329	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 100.47%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	2326389	9804.210	ng/mL	99

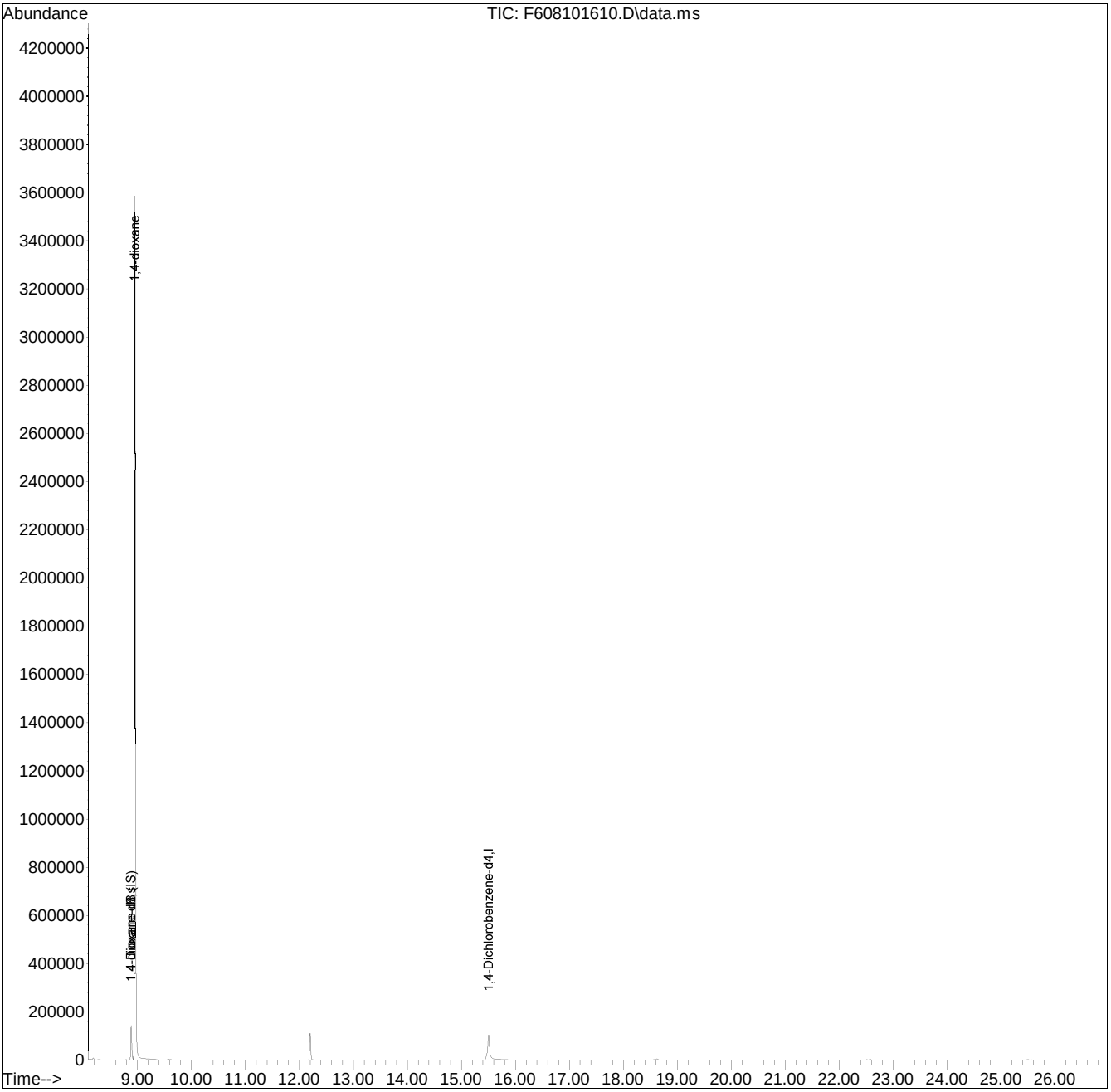
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101610.D
Acq On : 10 Aug 2016 6:51 pm
Operator : BNA6:SF
Sample : I608101607
Misc : WG921943,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 11 12:53:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101610.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 6:51 pm	Instrument	: BNA6
Sample	: I608101607	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	98	0.00
2	1,4-dioxane	1.433	1.360	5.1	91	0.00
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
4 s	1,4-dioxane-d8	0.433	0.442	-2.1	97	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	82343	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	186413	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	82343	510.386	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.08%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.968	88	223932	948.839	ng/mL	99

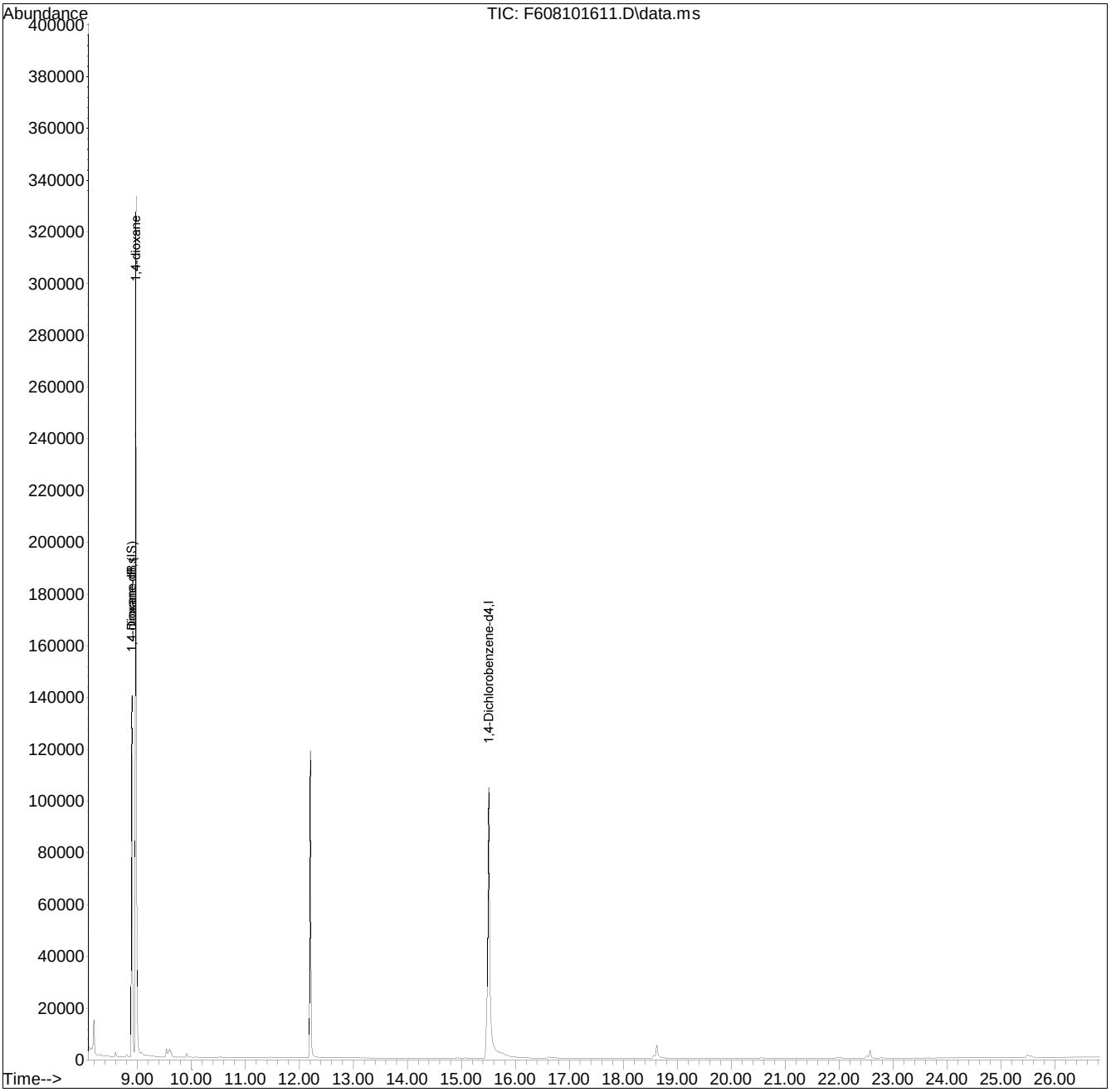
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101611.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 7:36 pm	Instrument	: BNA6
Sample	: CQ608101601	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Response Factor Report BNA6

Method Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Method File : 14DIOX0906BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Wed Sep 07 11:02:54 2016
Response Via : Initial Calibration

Calibration Files
10 =F609061602.D 50 =F609061603.D 100 =F609061604.D 500 =F609061605.D 1000=F609061606.D
5000=F609061607.D 1e4 =F609061608.D

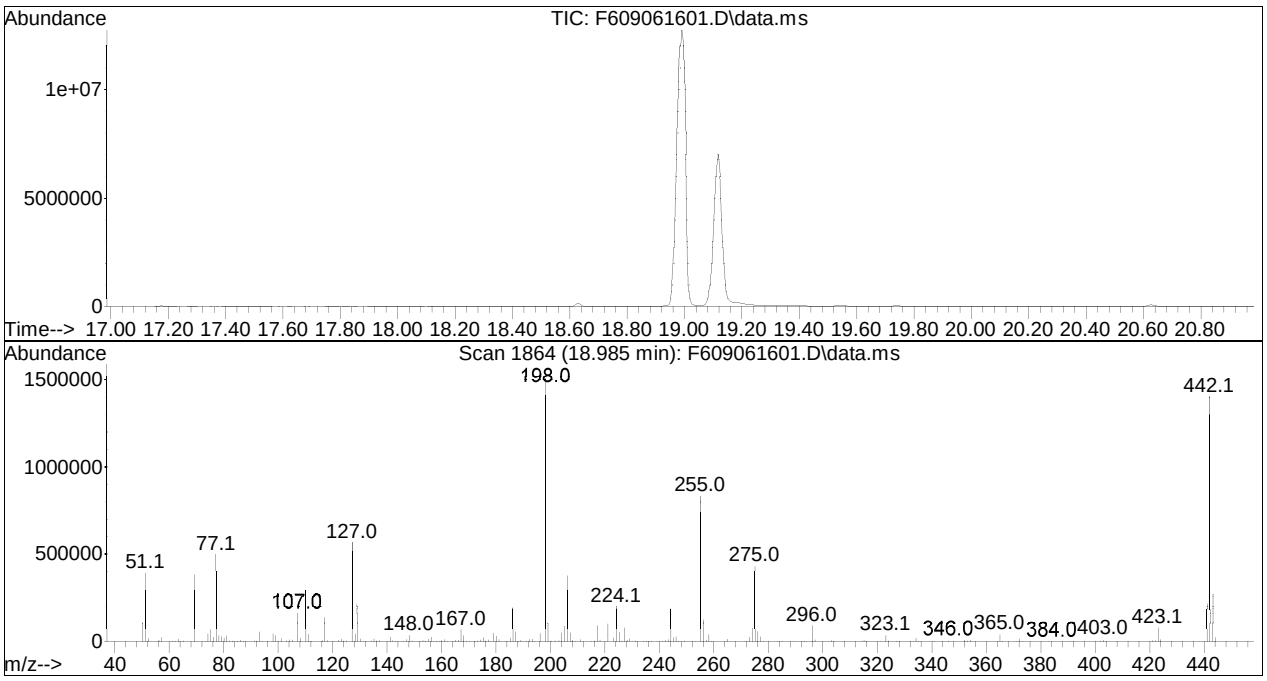
	Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)	1,4-Dioxane-d8 (IS)	ISTD								
2)	1,4-dioxane	1.336	1.277	1.306	1.290	1.366	1.328	1.317	1.317	2.28
3) I	1,4-Dichlorobenzene-d4	ISTD								
4) s	1,4-dioxane-d8	0.346	0.363	0.371	0.372	0.369	0.367	0.394	0.369	3.87

(#) = Out of Range

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061601.D
Acq On : 6 Sep 2016 11:33 am
Operator : BNA6:WR
Sample : T609061601
Misc : WG929479,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Wed Sep 07 08:54:35 2016



Spectrum Information: Scan 1864

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	25.8	390720	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2331	PASS
127	198	10	80	37.3	563520	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1512448	PASS
199	198	5	9	6.9	103672	PASS
275	198	10	60	28.4	429952	PASS
365	198	1	100	2.6	39368	PASS
441	442	0.01	24	15.5	217216	PASS
442	198	50	100	92.7	1401856	PASS
443	442	15	24	19.1	268096	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061602.D
Acq On : 6 Sep 2016 12:28 pm
Operator : BNA6:WR
Sample : I609061601
Misc : WG929479,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 07 09:05:18 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 08:54:35 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.833	64	87625	500.000	ng/mL	0.02
3) 1,4-Dichlorobenzene-d4	15.418	152	253192	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.833	64	87625	474.433	ng/mL	0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 94.89%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.923	88	2342M4	10.146	ng/mL	

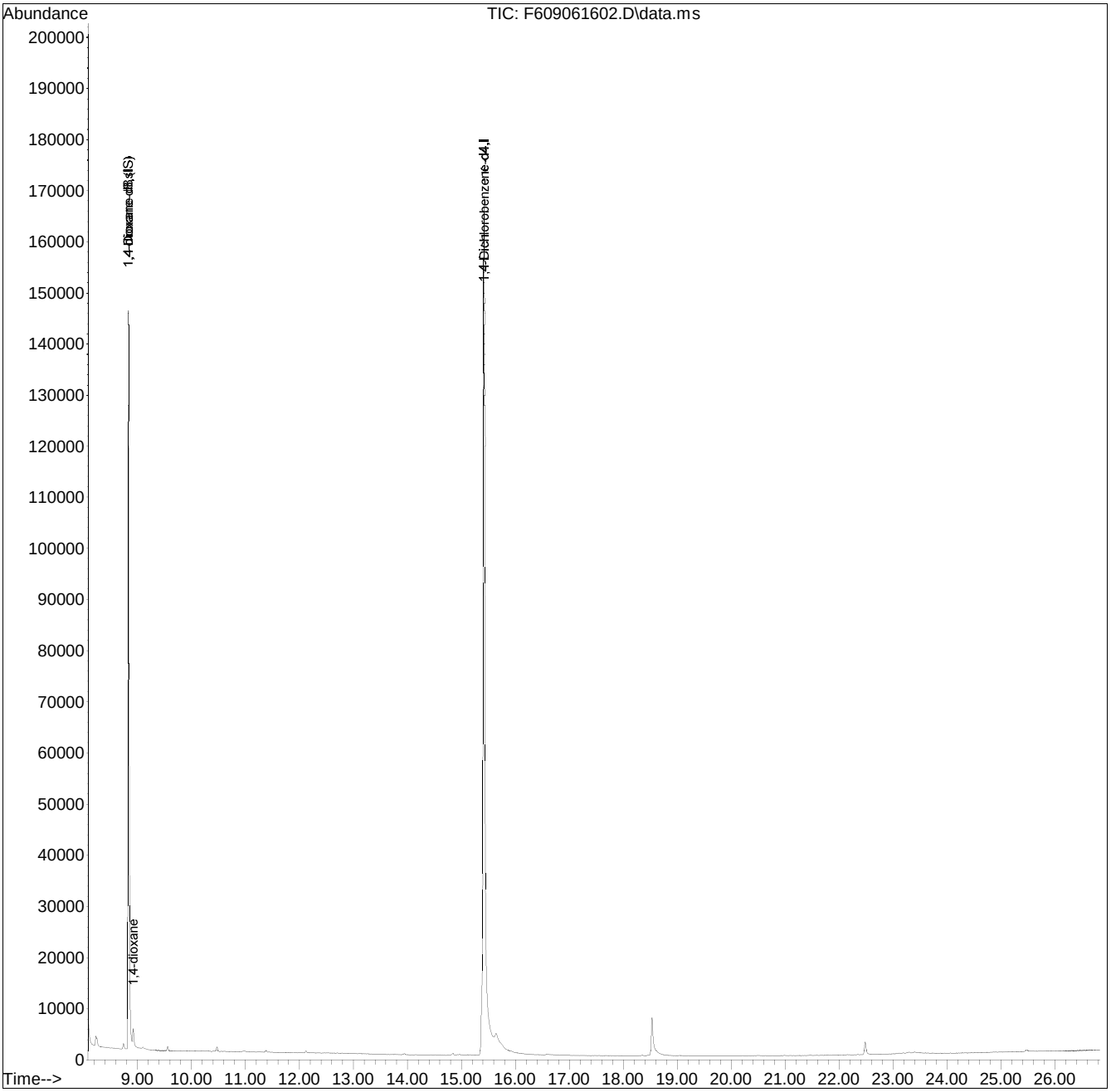
(#) = qualifier out of range (m) = manual integration (+) = signals summed

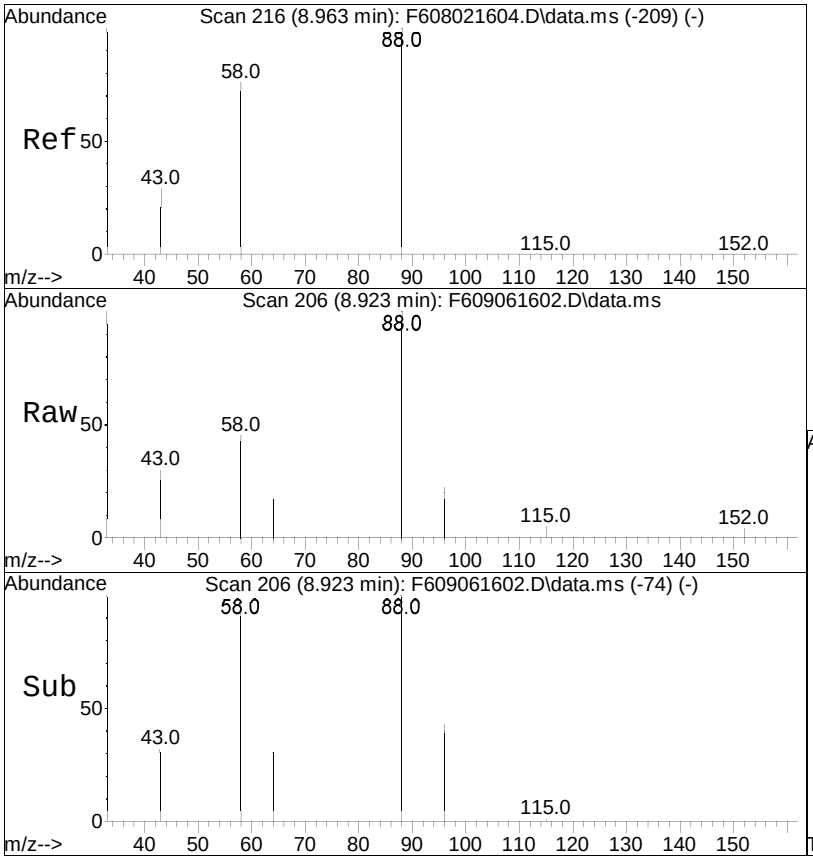
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061602.D
Acq On : 6 Sep 2016 12:28 pm
Operator : BNA6:WR
Sample : I609061601
Misc : WG929479,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 07 09:05:18 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 08:54:35 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

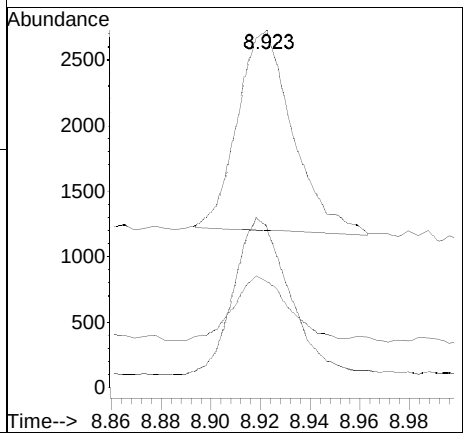




#2
1,4-dioxane
Concen: 10.15 ng/mL M4
RT: 8.923 min Scan# 206
Delta R.T. 0.037 min
Lab File: F609061602.D
Acq: 6 Sep 2016 12:28 pm

Tgt Ion: 88 Resp: 2342

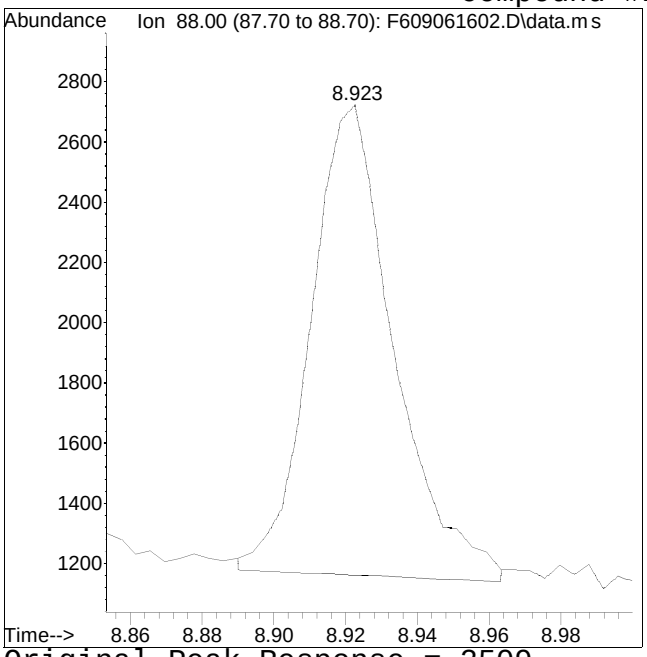
Ion	Ratio	Lower	Upper
88	100		
58	78.2	62.1	93.1
43	32.0	24.4	36.6



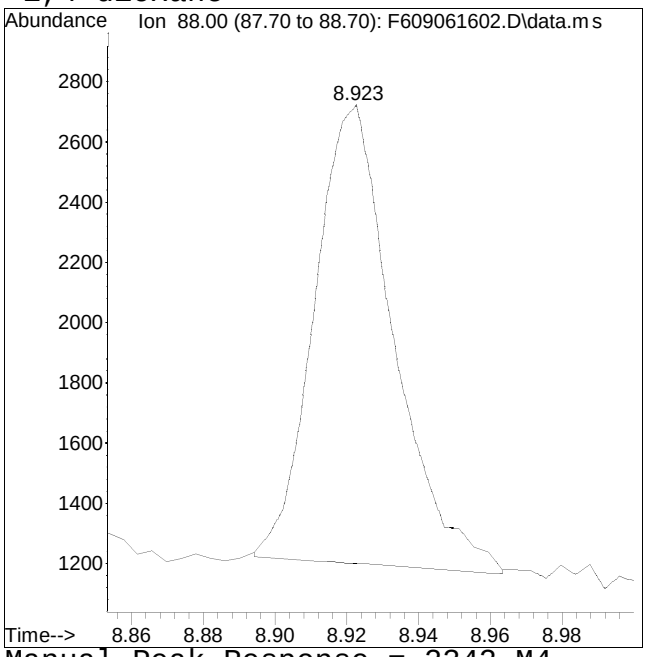
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0906BNA6.M
Data File : F609061602.D Operator : BNA6:WR
Date Inj'd : 9/6/2016 12:28 pm Instrument : BNA6
Sample : I609061601 Quant Date : 9/7/2016 9:05 am

Compound #2: 1,4-dioxane



Original Peak Response = 2509



Manual Peak Response = 2342 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061603.D
Acq On : 6 Sep 2016 1:12 pm
Operator : BNA6:WR
Sample : I609061602
Misc : WG929479,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 07 09:05:21 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 08:54:35 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.833	64	92167	500.000	ng/mL	0.02
3) 1,4-Dichlorobenzene-d4	15.422	152	253825	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.833	64	92167	497.780	ng/mL	0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 99.56%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.919	88	11766M4	48.459	ng/mL	

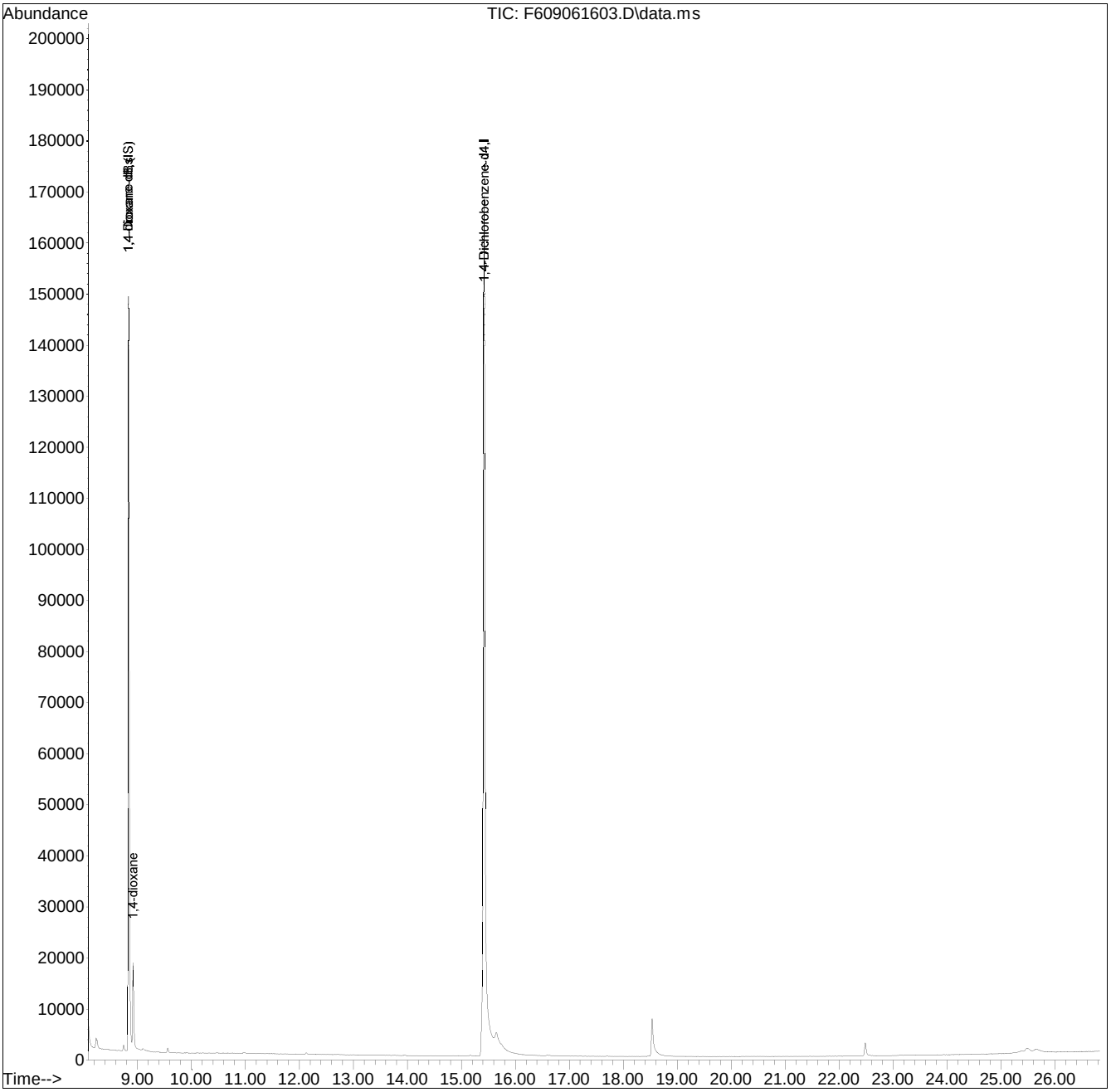
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061603.D
Acq On : 6 Sep 2016 1:12 pm
Operator : BNA6:WR
Sample : I609061602
Misc : WG929479,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 07 09:05:21 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 08:54:35 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

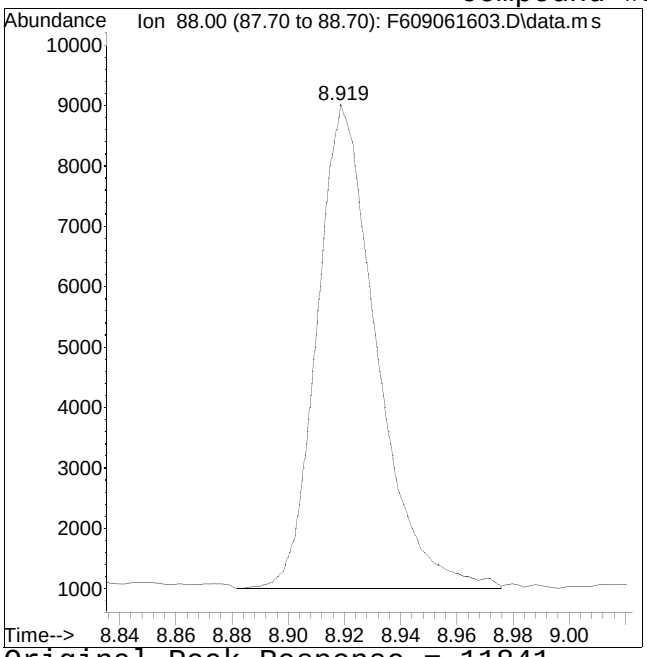


Manual Integration/Negative Proof Report

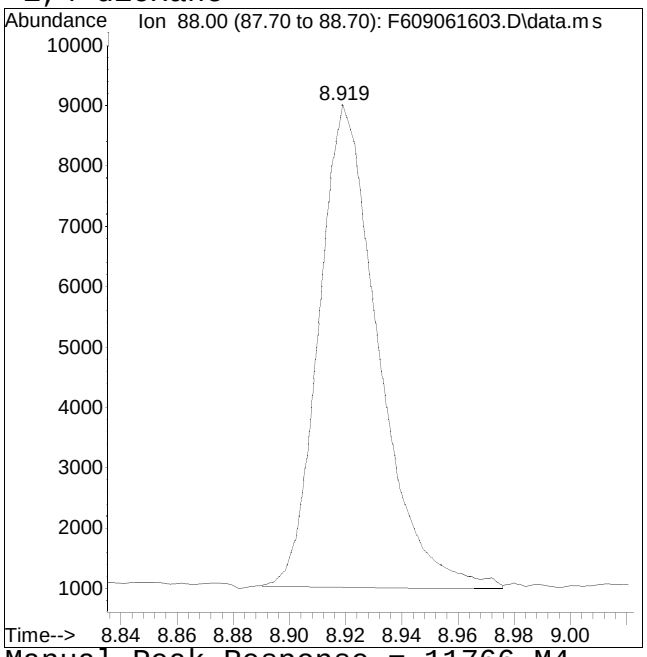
Data Path : O:\Organics\DATA\BNA6\2016\
Data File : F609061603.D
Date Inj'd : 9/6/2016 1:12 pm
Sample : I609061602

QMethod : 14DIOX0906BNA6.M
Operator : BNA6:WR
Instrument : BNA6
Quant Date : 9/7/2016 9:05 am

Compound #2: 1,4-dioxane



Original Peak Response = 11841



Manual Peak Response = 11766 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061604.D
Acq On : 6 Sep 2016 1:56 pm
Operator : BNA6:WR
Sample : I609061603
Misc : WG929479,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 07 09:05:24 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 08:54:35 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.833	64	88711	500.000	ng/mL	0.02
3) 1,4-Dichlorobenzene-d4	15.422	152	239355M4	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.833	64	88711	508.080	ng/mL	0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 101.62%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.914	88	23173M4	99.157	ng/mL	

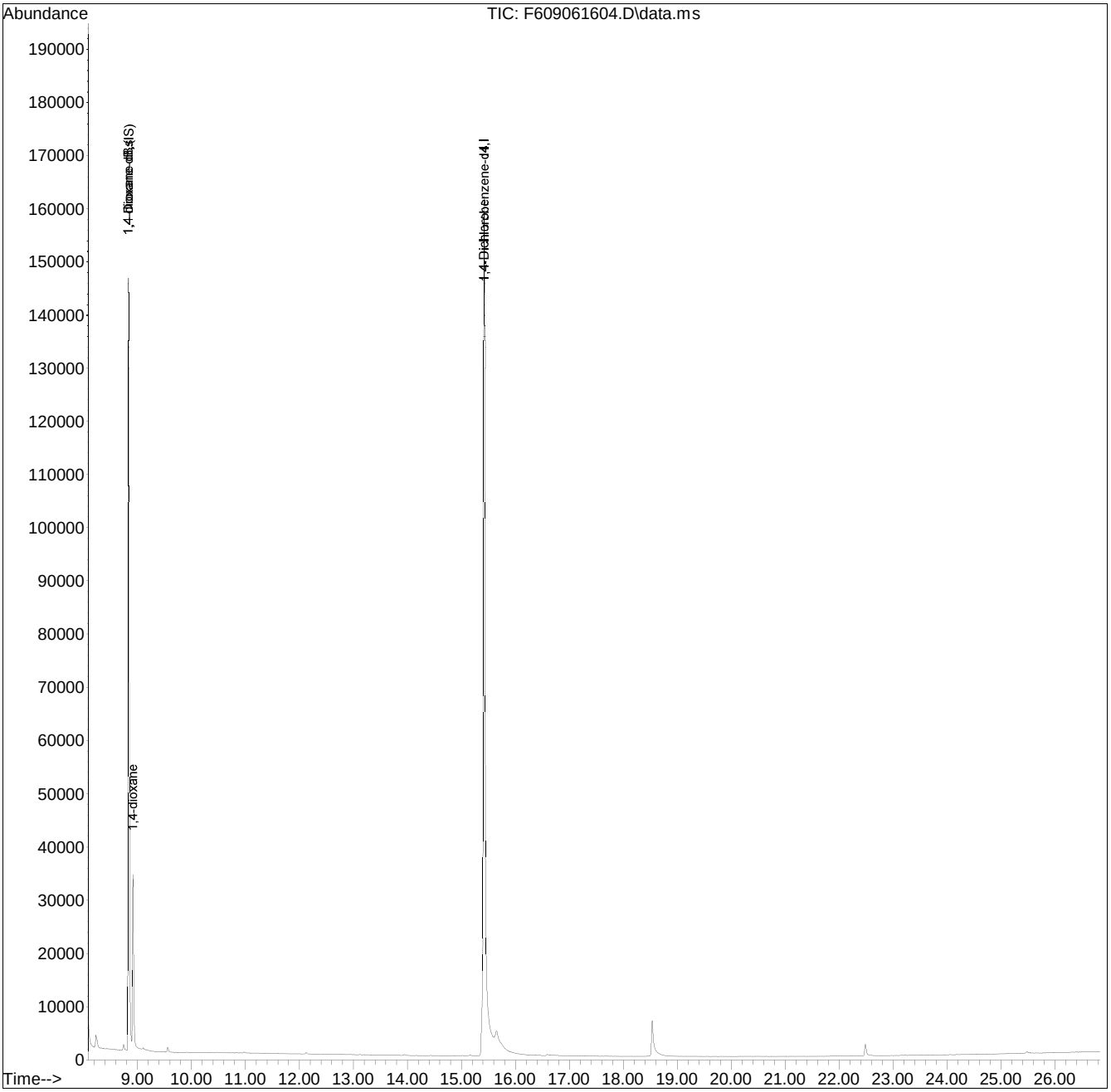
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061604.D
Acq On : 6 Sep 2016 1:56 pm
Operator : BNA6:WR
Sample : I609061603
Misc : WG929479,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 07 09:05:24 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 08:54:35 2016
Response via : Initial Calibration

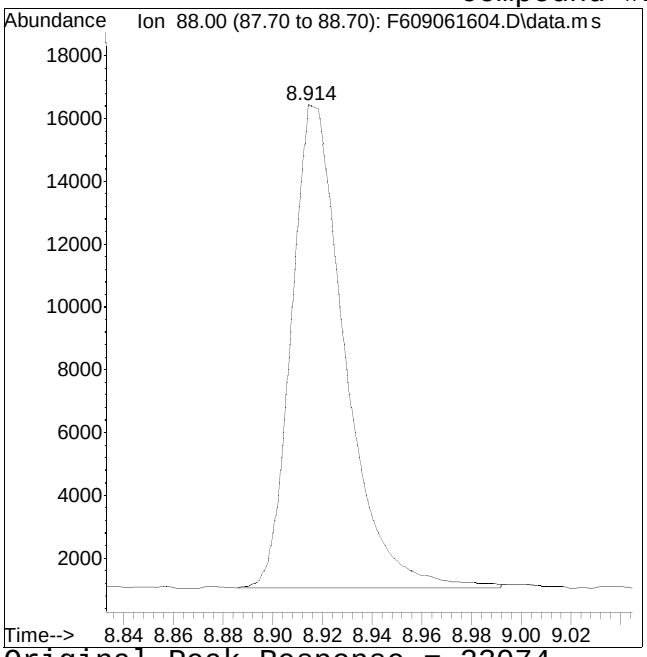
Sub List : Default - All compounds listed



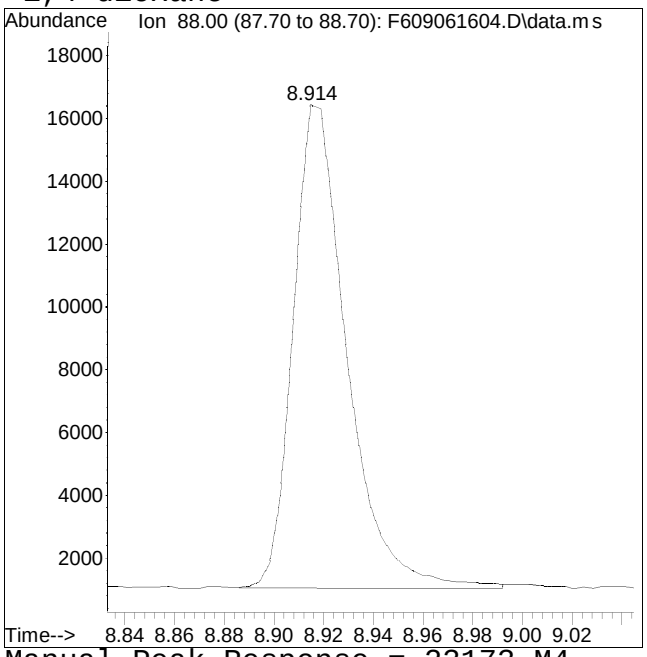
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0906BNA6.M
Data File : F609061604.D Operator : BNA6:WR
Date Inj'd : 9/6/2016 1:56 pm Instrument : BNA6
Sample : I609061603 Quant Date : 9/7/2016 9:05 am

Compound #2: 1,4-dioxane



Original Peak Response = 23074



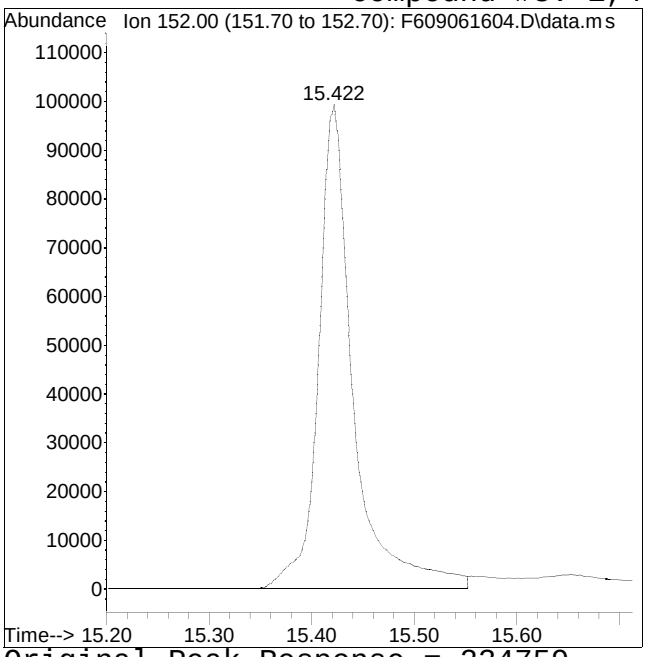
Manual Peak Response = 23173 M4

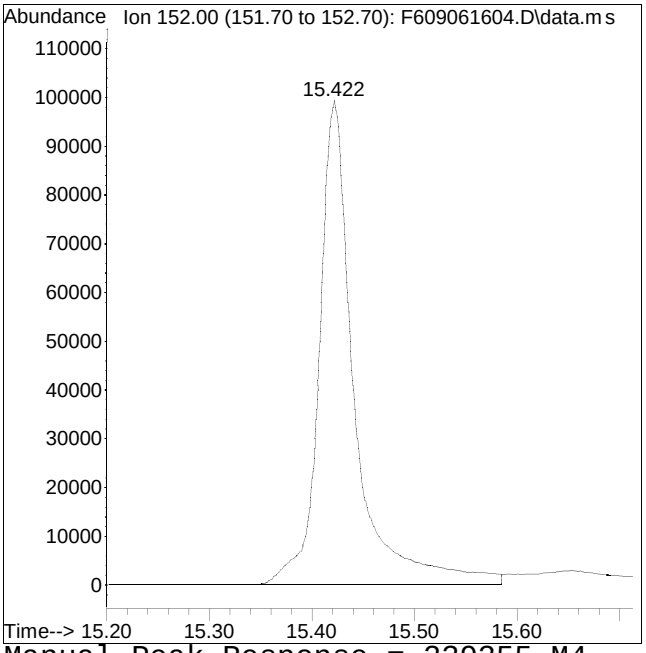
M4 = Poor automated baseline construction.

Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0906BNA6.M
Data File : F609061604.D Operator : BNA6:WR
Date Inj'd : 9/6/2016 1:56 pm Instrument : BNA6
Sample : I609061603 Quant Date : 9/7/2016 9:05 am

Compound #3: 1,4-Dichlorobenzene-d4





Original Peak Response = 234759 Manual Peak Response = 239355 M4
M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061605.D
Acq On : 6 Sep 2016 2:40 pm
Operator : BNA6:WR
Sample : I609061604
Misc : WG929479,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 07 09:05:27 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 08:54:35 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.833	64	87417	500.000	ng/mL	0.02
3) 1,4-Dichlorobenzene-d4	15.418	152	235035	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.833	64	87417	509.871	ng/mL	0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 101.97%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.911	88	112783M4	489.742	ng/mL	

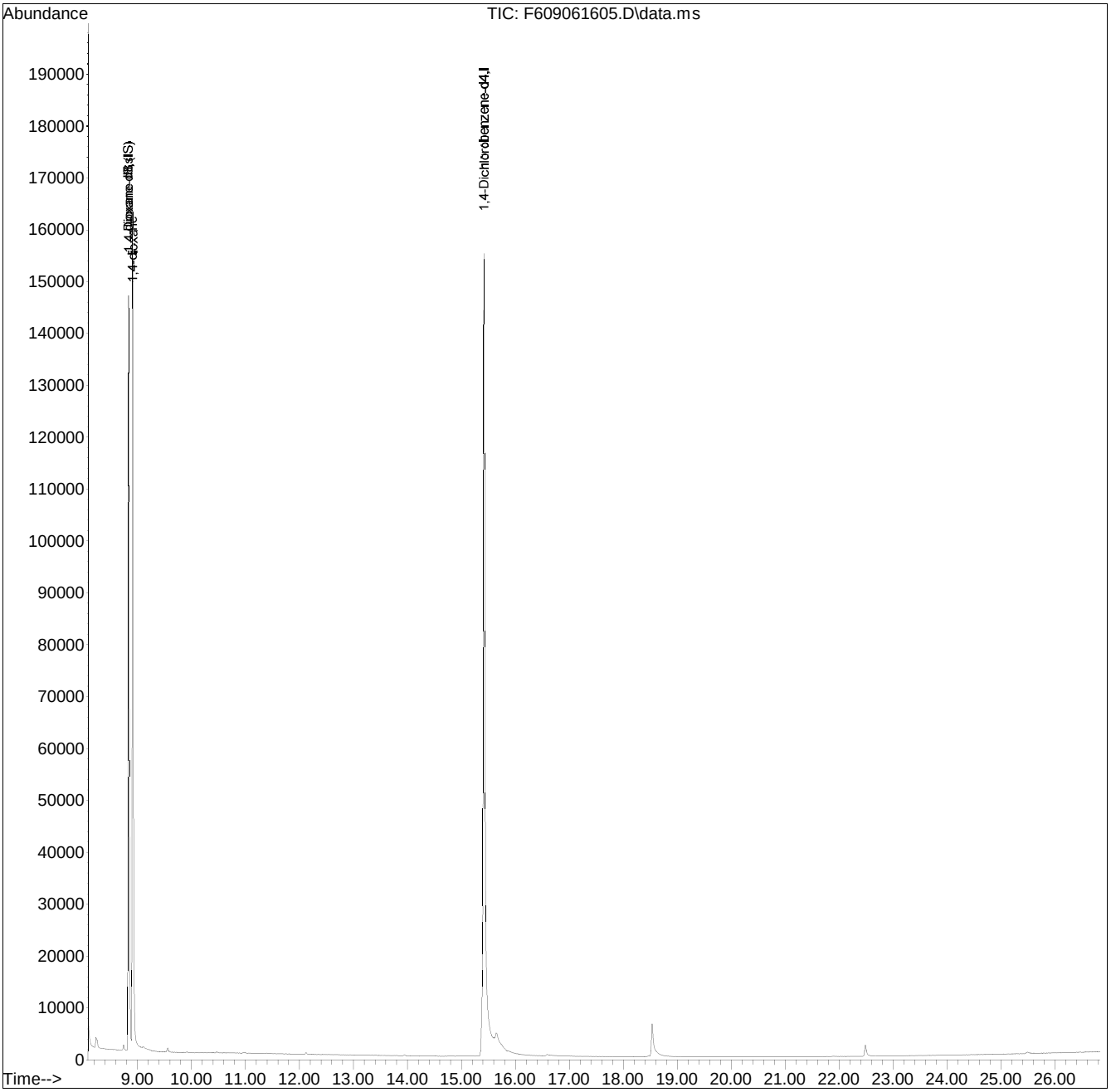
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061605.D
Acq On : 6 Sep 2016 2:40 pm
Operator : BNA6:WR
Sample : I609061604
Misc : WG929479,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 07 09:05:27 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 08:54:35 2016
Response via : Initial Calibration

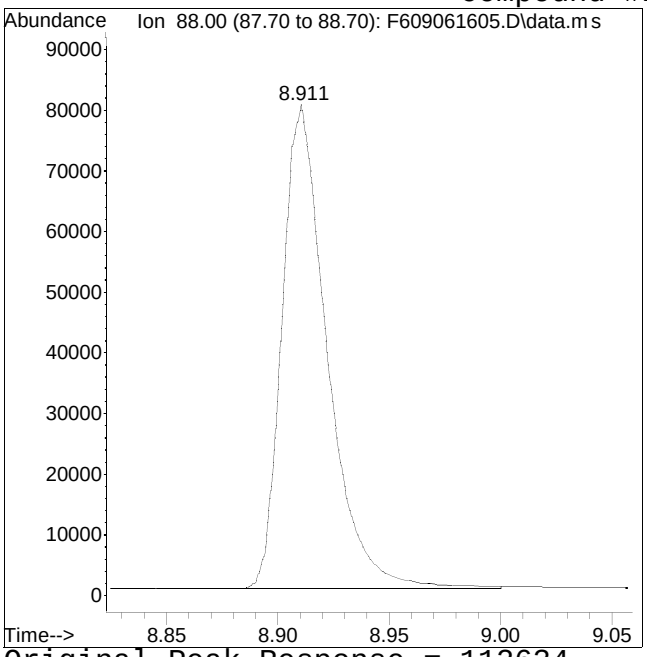
Sub List : Default - All compounds listed



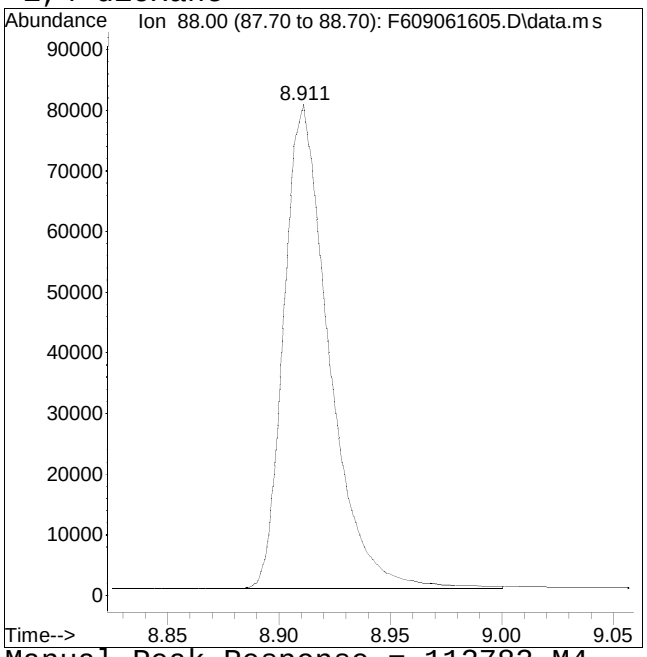
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0906BNA6.M
Data File : F609061605.D Operator : BNA6:WR
Date Inj'd : 9/6/2016 2:40 pm Instrument : BNA6
Sample : I609061604 Quant Date : 9/7/2016 9:05 am

Compound #2: 1,4-dioxane



Original Peak Response = 112634



Manual Peak Response = 112783 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061606.D
Acq On : 6 Sep 2016 3:24 pm
Operator : BNA6:WR
Sample : I609061605
Misc : WG929479,MSAK46
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 07 09:05:29 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 08:54:35 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.813	64	82626	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.418	152	223825	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.813	64	82626	506.063	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 101.21%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.886	88	225783	1037.277	ng/mL	100

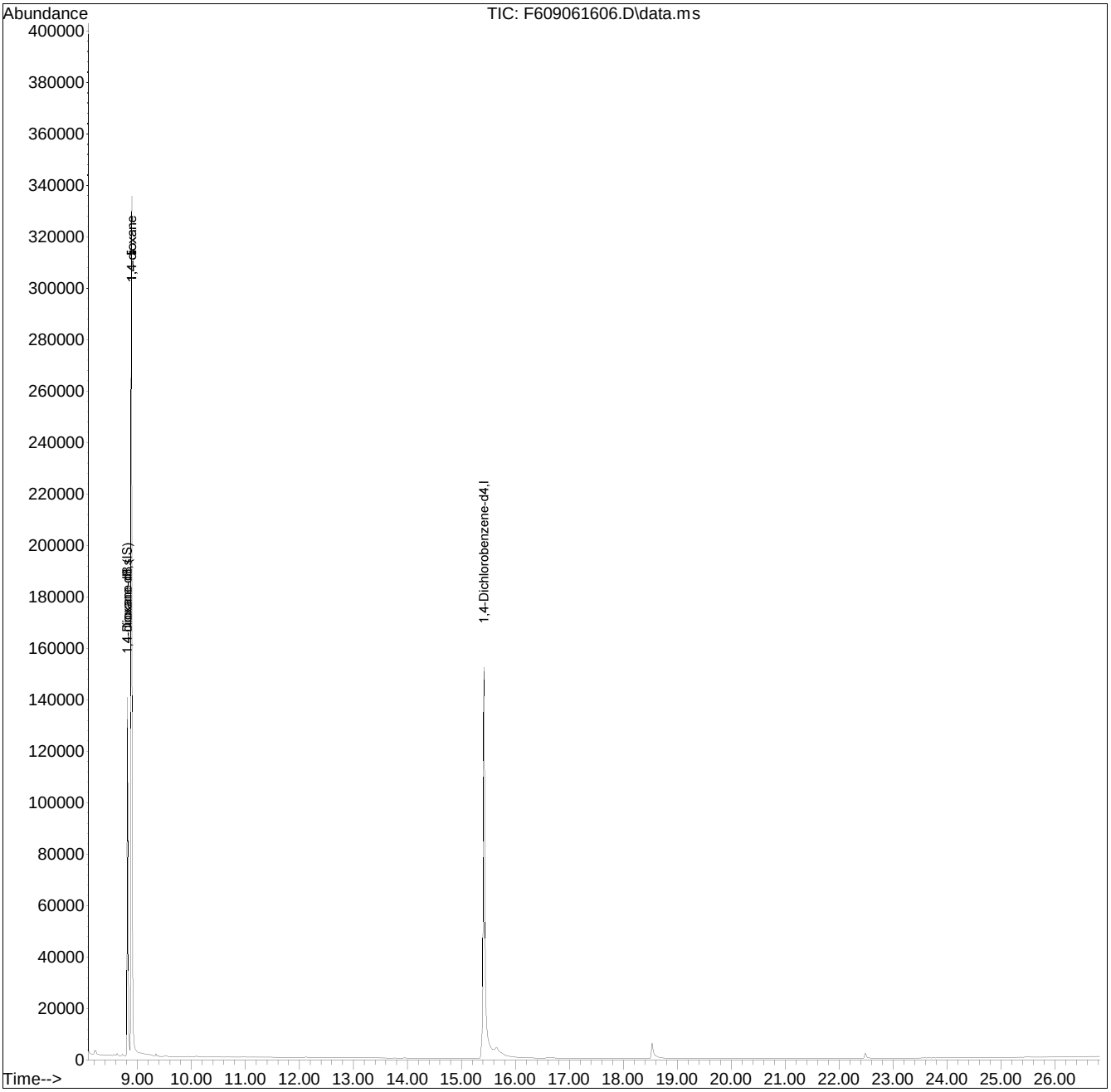
(#) = qualifier out of range (m) = manual integration (+) = signals summed

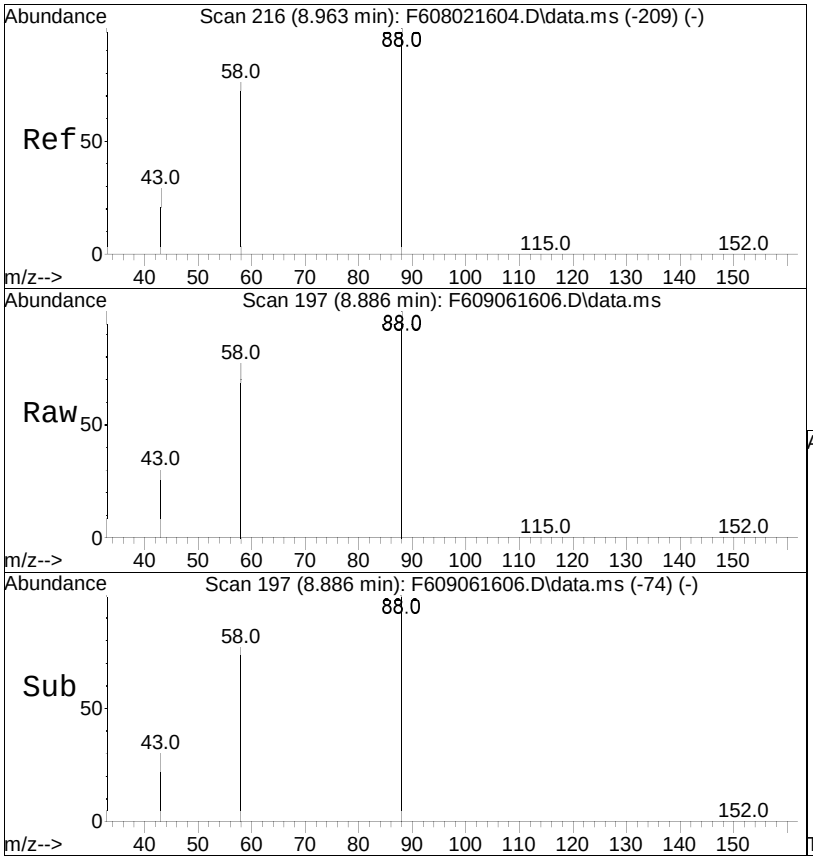
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061606.D
Acq On : 6 Sep 2016 3:24 pm
Operator : BNA6:WR
Sample : I609061605
Misc : WG929479,MSAK46
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 07 09:05:29 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 08:54:35 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

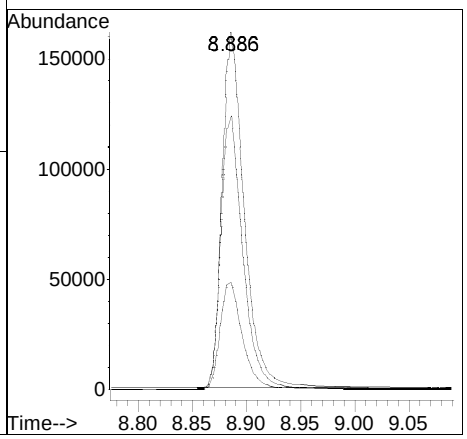




#2
1,4-dioxane
Concen: 1037.28 ng/mL
RT: 8.886 min Scan# 197
Delta R.T. -0.000 min
Lab File: F609061606.D
Acq: 6 Sep 2016 3:24 pm

Tgt Ion: 88 Resp: 225783

Ion	Ratio	Lower	Upper
88	100		
58	77.9	62.1	93.1
43	30.3	24.4	36.6



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0906BNA6.M
Data File	: F609061606.D	Operator	: BNA6:WR
Date Inj'd	: 9/6/2016 3:24 pm	Instrument	: BNA6
Sample	: I609061605	Quant Date	: 9/7/2016 9:05 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061607.D
Acq On : 6 Sep 2016 4:08 pm
Operator : BNA6:WR
Sample : I609061606
Misc : WG929479,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 07 09:05:33 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 08:54:35 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.800	64	81725M4	500.000	ng/mL	-0.01
3) 1,4-Dichlorobenzene-d4	15.418	152	222380	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.800	64	81721M4	503.773	ng/mL	-0.01
Spiked Amount 500.000	Range 15 - 115		Recovery = 100.75%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.874	88	1085008	5039.623	ng/mL	100

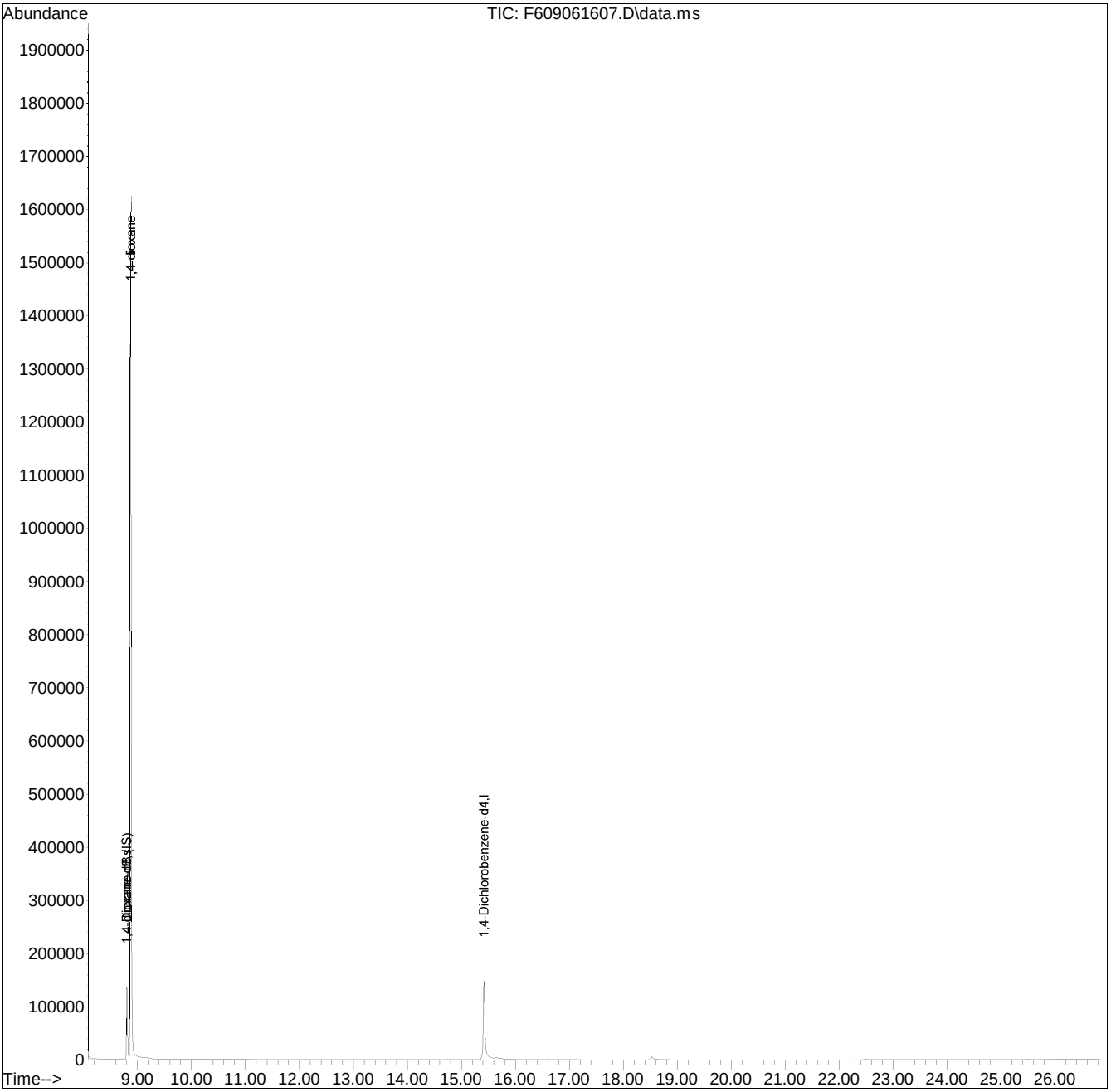
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061607.D
Acq On : 6 Sep 2016 4:08 pm
Operator : BNA6:WR
Sample : I609061606
Misc : WG929479,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 07 09:05:33 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 08:54:35 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

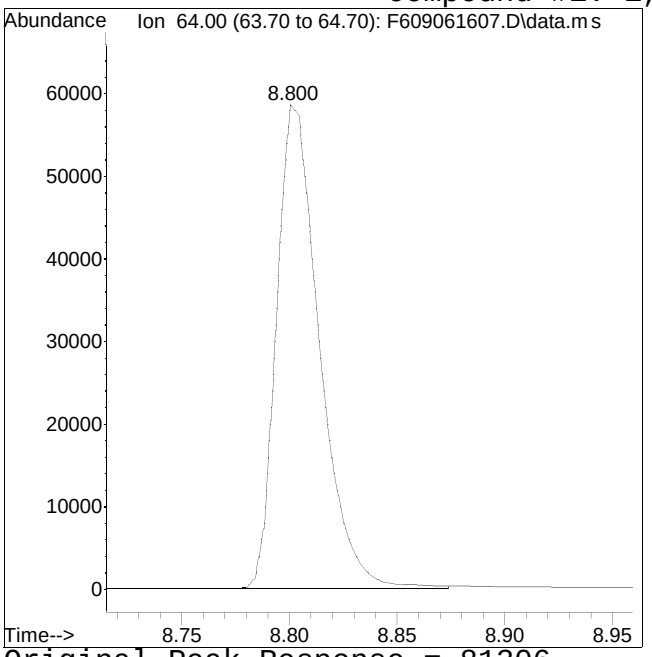


Manual Integration/Negative Proof Report

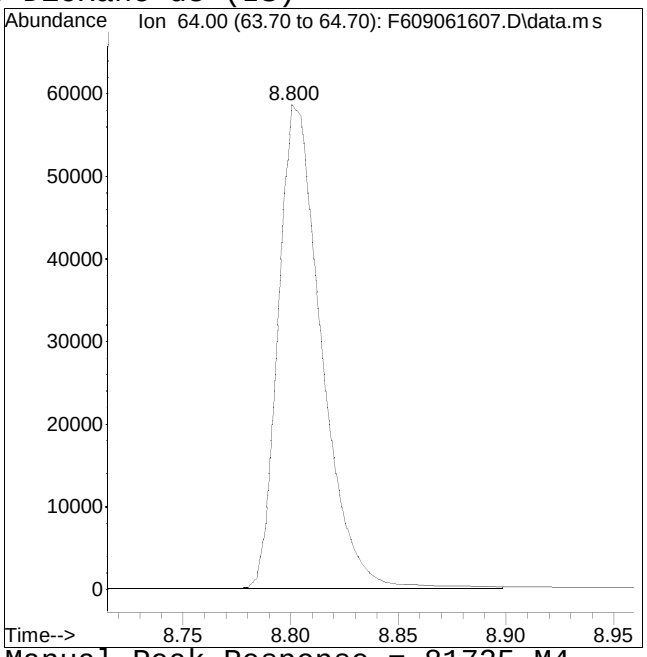
Data Path : O:\Organics\DATA\BNA6\2016\
Data File : F609061607.D
Date Inj'd : 9/6/2016 4:08 pm
Sample : I609061606

QMethod : 14DIOX0906BNA6.M
Operator : BNA6:WR
Instrument : BNA6
Quant Date : 9/7/2016 9:05 am

Compound #1: 1,4-Dioxane-d8 (IS)



Original Peak Response = 81306



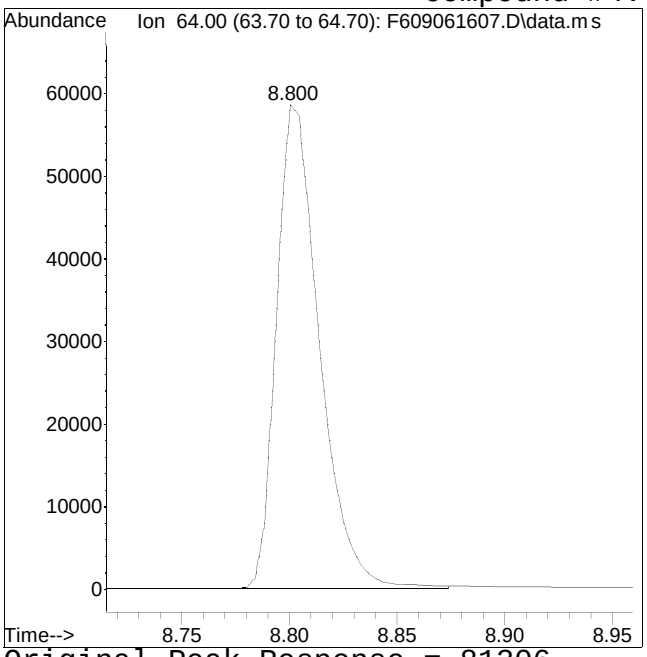
Manual Peak Response = 81725 M4

M4 = Poor automated baseline construction.

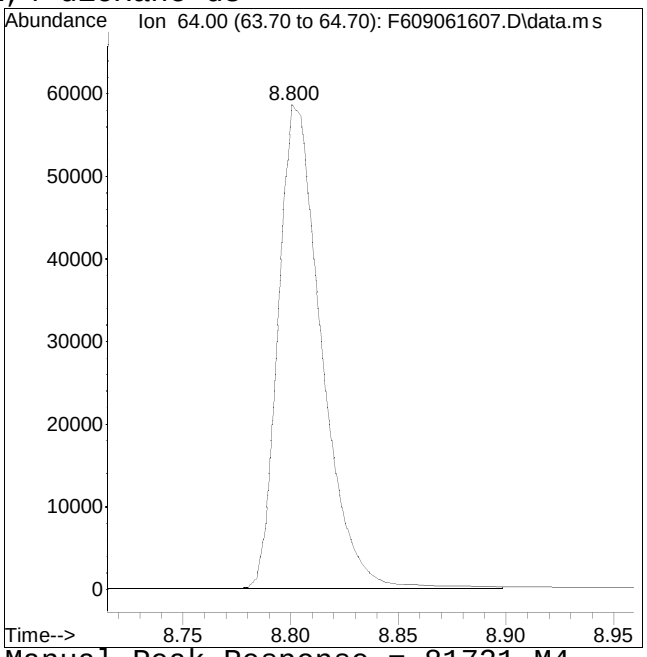
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0906BNA6.M
Data File : F609061607.D Operator : BNA6:WR
Date Inj'd : 9/6/2016 4:08 pm Instrument : BNA6
Sample : I609061606 Quant Date : 9/7/2016 9:05 am

Compound #4: 1,4-dioxane-d8



Original Peak Response = 81306



Manual Peak Response = 81721 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061608.D
Acq On : 6 Sep 2016 4:52 pm
Operator : BNA6:WR
Sample : I609061607
Misc : WG929479,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 07 11:03:44 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:02:54 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

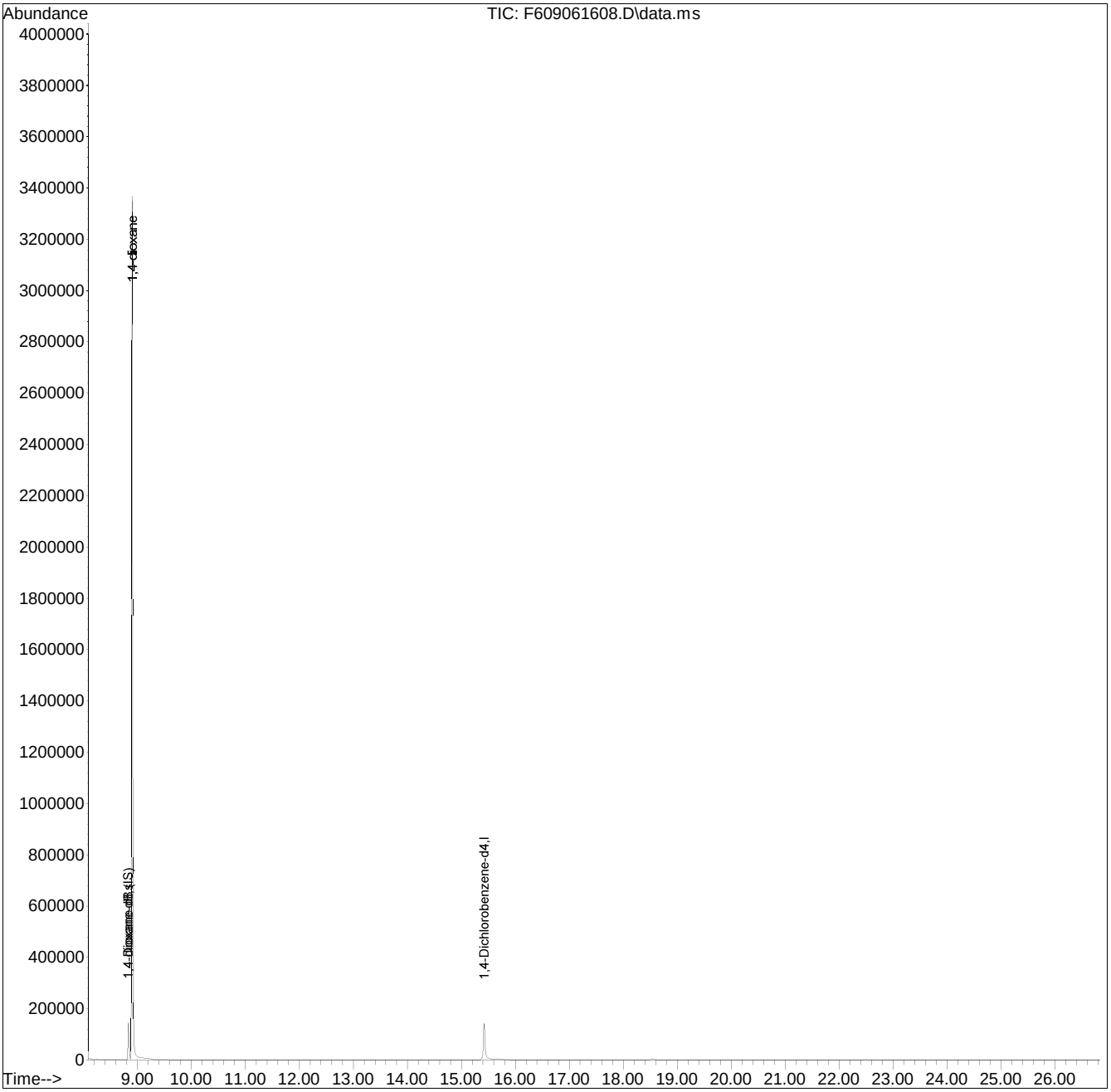
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.829	64	85243	500.000	ng/mL	0.02
3) 1,4-Dichlorobenzene-d4	15.422	152	216108	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.829	64	85243	534.514	ng/mL	0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 106.90%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.898	88	2245019M4	9997.658	ng/mL	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061608.D
Acq On : 6 Sep 2016 4:52 pm
Operator : BNA6:WR
Sample : I609061607
Misc : WG929479,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 07 11:03:44 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:02:54 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061609.D
Acq On : 6 Sep 2016 5:37 pm
Operator : BNA6:WR
Sample : CQ609061601
Misc : WG929479,MSAK65
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 07 11:04:04 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:02:54 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	98	0.01
2	1,4-dioxane	1.317	1.238	6.0	88	0.01
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00
4 s	1,4-dioxane-d8	0.369	0.369	0.0	92	0.01

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061609.D
Acq On : 6 Sep 2016 5:37 pm
Operator : BNA6:WR
Sample : CQ609061601
Misc : WG929479,MSAK65
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 07 11:04:04 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:02:54 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.825	64	80719	500.000	ng/mL	0.01
3) 1,4-Dichlorobenzene-d4	15.422	152	218530	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.825	64	80719	500.537	ng/mL	0.01
Spiked Amount 500.000	Range 15 - 115		Recovery = 100.11%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.898	88	199815	939.700	ng/mL	99

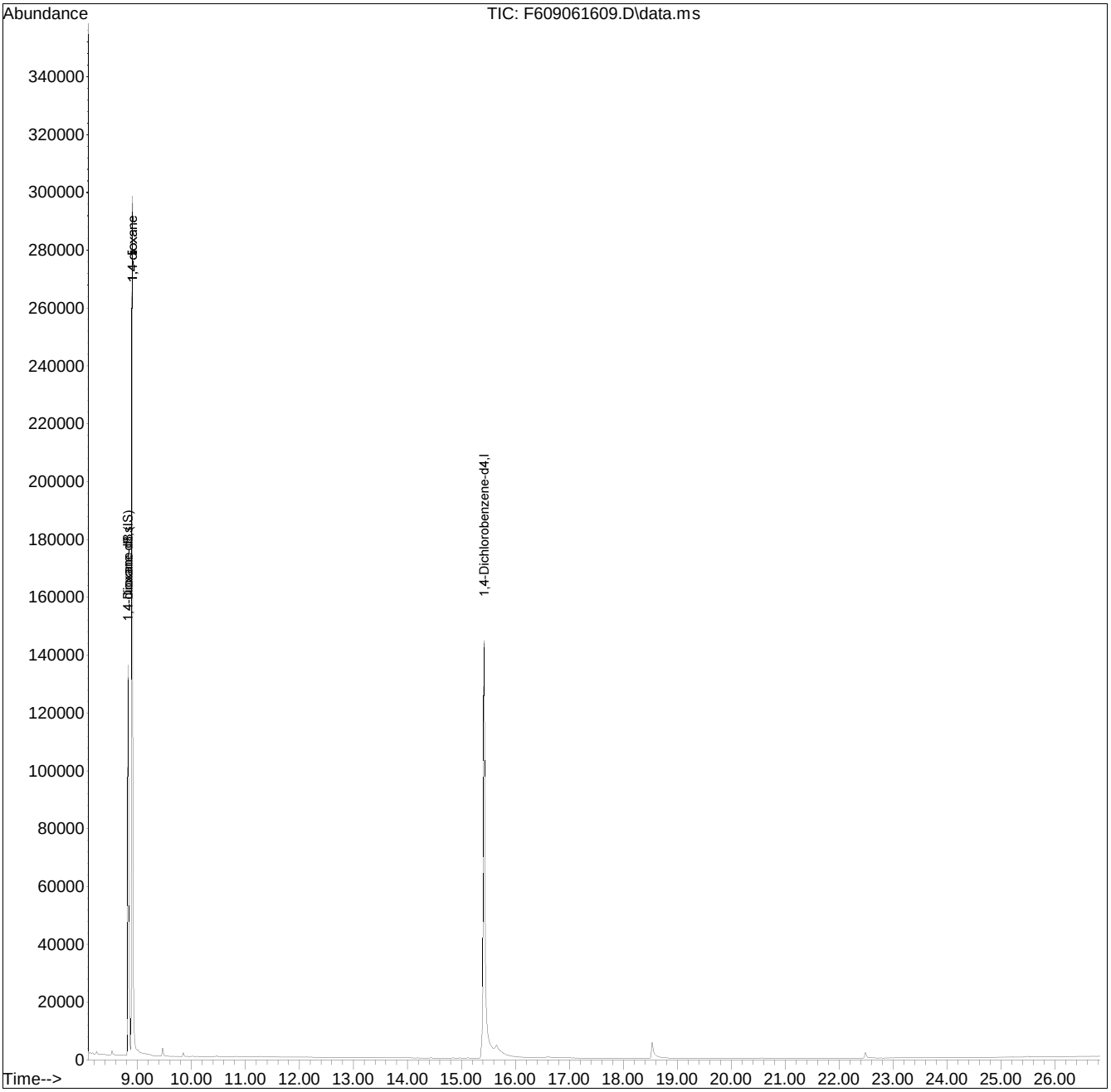
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061609.D
Acq On : 6 Sep 2016 5:37 pm
Operator : BNA6:WR
Sample : CQ609061601
Misc : WG929479,MSAK65
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 07 11:04:04 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:02:54 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 28 2016, 03:30 pm

Work Group: WG926303 for Department: 2 Organic Preparation

Created: 26-AUG-16 Due: Operator: ABS

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1626610-01	RW-11D (262-267)-082	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0830	0831	S0	Amber-A.5
L1626610-02	PMP-AS-180-082316	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0830	0831	S0	Amber-A.5
L1626610-03	PMP-AS-50-082316	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0830	0831	S0	Amber-A.5
L1626610-04	PMP-AS-230-082316	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0830	0831	S0	Amber-A.5
L1626610-05	RW-11S (236-244)-082	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0830	0831	S0	Amber-A.5
L1626610-07	RW-3DS (155-160)-082	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0830	0831	S0	Amber-A.5
WG926303-1	Laboratory Method Bl	S	A2-14-DIOXANESIM-PPB	WATER	EXT	U				
WG926303-2	Laboratory Control S	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG926303-3	LCS Duplicate	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				

Comments:

WG926303-3 WG926303-2

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 28 2016, 03:30 pm

Work Group: WG929215 for Department: 2 Organic Preparation

Created: 06-SEP-16 Due: Operator: AL

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1626610-06	RW-3DD (125-180)-082	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0830	0831	S0	Amber-A.5
L1627335-01	DMW-3C	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0907	0908	S0	Amber-A.5
WG929215-1	Laboratory Method Bl	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG929215-2	Laboratory Control S	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG929215-3	LCS Duplicate	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				

Comments:

WG929215-3	WG929215-2

Sequence Logs

Analysis log File SF 081116

Total Files Reported in Log : 11
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Aug\Aug10\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F608101601.D	14DIOXDFTPPB	TUNE	MSAK38	8/10/2016 11:28 am
2	F608101602.D	14DIOXBNA6.M	CCV	MSAK15	8/10/2016 12:25 pm
3	F608101603.D	14DIOXDFTPPB	T608101601	WG921943,MSAK38	8/10/2016 1:25 pm
4	F608101604.D	14DIOXBNA6.M	I608101601	WG921943,MSAJ77	8/10/2016 2:22 pm
5	F608101605.D	14DIOXBNA6.M	I608101602	WG921943,MSAJ78	8/10/2016 3:07 pm
6	F608101606.D	14DIOXBNA6.M	I608101603	WG921943,MSAJ79	8/10/2016 3:51 pm
7	F608101607.D	14DIOXBNA6.M	I608101604	WG921943,MSAJ80	8/10/2016 4:36 pm
8	F608101608.D	14DIOXBNA6.M	I608101605	WG921943,MSAK15	8/10/2016 5:21 pm
9	F608101609.D	14DIOXBNA6.M	I608101606	WG921943,MSAJ82	8/10/2016 6:06 pm
10	F608101610.D	14DIOXBNA6.M	I608101607	WG921943,MSAJ76	8/10/2016 6:51 pm
11	F608101611.D	14DIOXBNA6.M	CQ608101601	WG921943,MSAJ49	8/10/2016 7:36 pm

Analysis log File

Total Files Reported in Log : 28
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Sep\Sep06\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F609061601.D	14DIOXDFTPPB	T609061601	WG929479,MSAK38	9/6/2016 11:33 am
2	F609061602.D	14DIOXBNA6.M	I609061601	WG929479,MSAJ77	9/6/2016 12:28 pm
3	F609061603.D	14DIOXBNA6.M	I609061602	WG929479,MSAJ78	9/6/2016 1:12 pm
4	F609061604.D	14DIOXBNA6.M	I609061603	WG929479,MSAJ79	9/6/2016 1:56 pm
5	F609061605.D	14DIOXBNA6.M	I609061604	WG929479,MSAJ80	9/6/2016 2:40 pm
6	F609061606.D	14DIOXBNA6.M	I609061605	WG929479,MSAK46	9/6/2016 3:24 pm
7	F609061607.D	14DIOXBNA6.M	I609061606	WG929479,MSAJ82	9/6/2016 4:08 pm
8	F609061608.D	14DIOXBNA6.M	I609061607	WG929479,MSAJ76	9/6/2016 4:52 pm
9	F609061609.D	14DIOXBNA6.M	CQ609061601	WG929479,MSAK65	9/6/2016 5:37 pm
10	F609061610.D	14DIOXDFTPPB	TUNE	MSAK38	9/6/2016 6:17 pm
11	F609061611.D	14DIOXBNA6.M	CCV	MSAK46	9/6/2016 7:13 pm
12	F609061612.D	14DIOXBNA6.M	WG928760-1		9/6/2016 7:57 pm
13	F609061613.D	14DIOXBNA6.M	WG928760-2		9/6/2016 8:41 pm
14	F609061614.D	14DIOXBNA6.M	WG928760-3		9/6/2016 9:25 pm
15	F609061615.D	14DIOXBNA6.M	L1627501-01		9/6/2016 10:09 pm
16	F609061616.D	14DIOXBNA6.M	L1627553-01		9/6/2016 10:53 pm
17	F609061617.D	14DIOXBNA6.M	L1627608-01		9/6/2016 11:37 pm
18	F609061618.D	14DIOXBNA6.M	L1627699-03		9/7/2016 12:21 am
19	F609061619.D	14DIOXBNA6.M	L1627699-06		9/7/2016 1:05 am
20	F609061620.D	14DIOXBNA6.M	L1627581-02		9/7/2016 1:49 am
21	F609061621.D	14DIOXBNA6.M	L1627700-01		9/7/2016 2:33 am
22	F609061622.D	14DIOXBNA6.M	L1627700-02		9/7/2016 3:17 am
23	F609061623.D	14DIOXBNA6.M	L1627700-03		9/7/2016 4:01 am
24	F609061624.D	14DIOXDFTPPB	TUNE	MSAK38	9/7/2016 4:42 am
25	F609061625.D	14DIOXBNA6.M	CCV	MSAK46	9/7/2016 5:38 am
26	F609061626.D	14DIOXBNA6.M	L1627700-04		9/7/2016 6:22 am
27	F609061627.D	14DIOXBNA6.M	L1627700-05		9/7/2016 7:06 am
28	F609061628.D	14DIOXBNA6.M	L1627700-06		9/7/2016 7:50 am

Total Files Reported in Log : 46
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Aug\Aug26\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F608261601.D	14DIOXDFTPPB	WG926415-1	WG926415,MSAK38	8/26/2016 12:45 pm
2	F608261602.D	14DIOXBNA6.M	WG926415-3	WG926415,MSAK15	8/26/2016 1:42 pm
3	F608261603.D	14DIOXBNA6.M	WG926246-1	WG926415,WG926246..	8/26/2016 2:49 pm
4	F608261604.D	14DIOXBNA6.M	WG926246-2	WG926415,WG926246..	8/26/2016 3:34 pm
5	F608261605.D	14DIOXBNA6.M	WG926246-3	WG926415,WG926246..	8/26/2016 4:19 pm
6	F608261606.D	14DIOXBNA6.M	L1626513-01	WG926415,WG926243..	8/26/2016 5:04 pm
7	F608261607.D	14DIOXBNA6.M	L1626513-03	WG926415,WG926243..	8/26/2016 5:49 pm
8	F608261608.D	14DIOXBNA6.M	L1626513-05	WG926415,WG926243..	8/26/2016 6:34 pm
9	F608261609.D	14DIOXBNA6.M	L1626513-07	WG926415,WG926243..	8/26/2016 7:19 pm
10	F608261610.D	14DIOXBNA6.M	WG926243-4	WG926415,WG926243..	8/26/2016 8:04 pm
11	F608261611.D	14DIOXBNA6.M	WG926243-5	WG926415,WG926243..	8/26/2016 8:49 pm
12	F608261612.D	14DIOXBNA6.M	L1626513-09	WG926415,WG926243..	8/26/2016 9:33 pm
13	F608261613.D	14DIOXDFTPPB	WG926828-1	WG926828,MSAK38	8/26/2016 10:14 pm
14	F608261614.D	14DIOXBNA6.M	WG926828-3	WG926828,MSAK15	8/26/2016 11:10 pm
15	F608261615.D	14DIOXBNA6.M	L1626513-10	WG926415,WG926243..	8/26/2016 11:54 pm
16	F608261616.D	14DIOXBNA6.M	L1626513-11	WG926415,WG926243..	8/27/2016 12:38 am
17	F608261617.D	14DIOXBNA6.M	L1626513-13	WG926415,WG926243..	8/27/2016 1:23 am
18	F608261618.D	14DIOXBNA6.M	L1626513-15	WG926415,WG926243..	8/27/2016 2:07 am
19	F608261619.D	14DIOXBNA6.M	L1626340-01	WG926415,WG926246..	8/27/2016 2:50 am
20	F608261620.D	14DIOXBNA6.M	WG926303-1	WG926828,WG926303..	8/27/2016 3:34 am
21	F608261621.D	14DIOXBNA6.M	WG926303-2	WG926828,WG926303..	8/27/2016 4:18 am
22	F608261622.D	14DIOXBNA6.M	WG926303-3	WG926828,WG926303..	8/27/2016 5:01 am
23	F608261623.D	14DIOXBNA6.M	L1626575-01	WG926828,WG926302..	8/27/2016 5:45 am
24	F608261624.D	14DIOXBNA6.M	L1626575-02	WG926828,WG926302..	8/27/2016 6:29 am
25	F608261625.D	14DIOXBNA6.M	L1626575-03	WG926828,WG926302..	8/27/2016 7:12 am
26	F608261626.D	14DIOXBNA6.M	L1626575-04	WG926828,WG926302..	8/27/2016 7:56 am
27	F608261627.D	14DIOXDFTPPB	WG926828-4	WG926828,MSAK38	8/27/2016 8:36 am
28	F608261628.D	14DIOXBNA6.M	WG926828-6	WG926828,MSAK15	8/27/2016 9:31 am
29	F608261629.D	14DIOXBNA6.M	L1626575-05	WG926828,WG926302..	8/27/2016 10:15 am
30	F608261630.D	14DIOXBNA6.M	L1626575-06	WG926828,WG926302..	8/27/2016 10:59 am
31	F608261631.D	14DIOXBNA6.M	L1626575-07	WG926828,WG926302..	8/27/2016 11:43 am
32	F608261632.D	14DIOXBNA6.M	L1626575-08	WG926828,WG926302..	8/27/2016 12:27 pm
33	F608261633.D	14DIOXBNA6.M	L1626712-05	WG926828,WG926302..	8/27/2016 1:11 pm
34	F608261634.D	14DIOXBNA6.M	WG926302-4	WG926828,WG926302..	8/27/2016 1:55 pm
35	F608261635.D	14DIOXBNA6.M	WG926302-5	WG926828,WG926302..	8/27/2016 2:40 pm
36	F608261636.D	14DIOXBNA6.M	L1626712-07	WG926828,WG926302..	8/27/2016 3:24 pm
37	F608261637.D	14DIOXBNA6.M	L1626712-14	WG926828,WG926302..	8/27/2016 4:08 pm
38	F608261638.D	14DIOXBNA6.M	L1626610-01	WG926828,WG926303..	8/27/2016 4:52 pm
39	F608261639.D	14DIOXBNA6.M	L1626610-02	WG926828,WG926303..	8/27/2016 5:36 pm
40	F608261640.D	14DIOXBNA6.M	L1626610-03	WG926828,WG926303..	8/27/2016 6:20 pm
41	F608261641.D	14DIOXDFTPPB	WG926828-7	WG926828,MSAK38	8/27/2016 7:01 pm
42	F608261642.D	14DIOXBNA6.M	WG926828-9	WG926828,MSAK15	8/27/2016 7:56 pm
43	F608261643.D	14DIOXBNA6.M	L1626610-04	WG926828,WG926303..	8/27/2016 8:40 pm
44	F608261644.D	14DIOXBNA6.M	L1626610-05	WG926828,WG926303..	8/27/2016 9:24 pm
45	F608261645.D	14DIOXBNA6.M	L1626610-06	WG926828,WG926303..	8/27/2016 10:07 pm
46	F608261646.D	14DIOXBNA6.M	L1626610-07	WG926828,WG926303..	8/27/2016 10:51 pm

Analysis log File

Total Files Reported in Log : 34
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Sep\Sep06\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F609061601.D	14DIOXDFTPPB	T609061601	WG929479,MSAK38	9/6/2016 11:33 am
2	F609061602.D	14DIOXBNA6.M	I609061601	WG929479,MSAJ77	9/6/2016 12:28 pm
3	F609061603.D	14DIOXBNA6.M	I609061602	WG929479,MSAJ78	9/6/2016 1:12 pm
4	F609061604.D	14DIOXBNA6.M	I609061603	WG929479,MSAJ79	9/6/2016 1:56 pm
5	F609061605.D	14DIOXBNA6.M	I609061604	WG929479,MSAJ80	9/6/2016 2:40 pm
6	F609061606.D	14DIOXBNA6.M	I609061605	WG929479,MSAK46	9/6/2016 3:24 pm
7	F609061607.D	14DIOXBNA6.M	I609061606	WG929479,MSAJ82	9/6/2016 4:08 pm
8	F609061608.D	14DIOXBNA6.M	I609061607	WG929479,MSAJ76	9/6/2016 4:52 pm
9	F609061609.D	14DIOXBNA6.M	CQ609061601	WG929479,MSAK65	9/6/2016 5:37 pm
10	F609061610.D	14DIOXDFTPPB	WG929257-1	WG929257,MSAK38	9/6/2016 6:17 pm
11	F609061611.D	14DIOXBNA6.M	WG929257-3	WG929257,MSAK46	9/6/2016 7:13 pm
12	F609061612.D	14DIOXBNA6.M	WG928759-1	WG929257,WG928759..	9/6/2016 7:57 pm
13	F609061613.D	14DIOXBNA6.M	WG928759-2	WG929257,WG928759..	9/6/2016 8:41 pm
14	F609061614.D	14DIOXBNA6.M	WG928759-3	WG929257,WG928759..	9/6/2016 9:25 pm
15	F609061615.D	14DIOXBNA6.M	L1627501-01	WG929257,WG928756..	9/6/2016 10:09 pm
16	F609061616.D	14DIOXBNA6.M	L1627553-01	WG929257,WG928758..	9/6/2016 10:53 pm
17	F609061617.D	14DIOXBNA6.M	L1627608-01	WG929257,WG928759..	9/6/2016 11:37 pm
18	F609061618.D	14DIOXBNA6.M	L1627699-03	WG929257,WG928759..	9/7/2016 12:21 am
19	F609061619.D	14DIOXBNA6.M	L1627699-06	WG929257,WG928759..	9/7/2016 1:05 am
20	F609061620.D	14DIOXBNA6.M	L1627581-02	WG929257,WG928758..	9/7/2016 1:49 am
21	F609061621.D	14DIOXBNA6.M	L1627700-01	WG929257,WG928760..	9/7/2016 2:33 am
22	F609061622.D	14DIOXBNA6.M	L1627700-02	WG929257,WG928760..	9/7/2016 3:17 am
23	F609061623.D	14DIOXBNA6.M	L1627700-03	WG929257,WG928760..	9/7/2016 4:01 am
24	F609061624.D	14DIOXDFTPPB	WG929257-4	WG929257,MSAK38	9/7/2016 4:42 am
25	F609061625.D	14DIOXBNA6.M	WG929257-6	WG929257,MSAK46	9/7/2016 5:38 am
26	F609061626.D	14DIOXBNA6.M	L1627700-04	WG929257,WG928760..	9/7/2016 6:22 am
27	F609061627.D	14DIOXBNA6.M	L1627700-05	WG929257,WG928760..	9/7/2016 7:06 am
28	F609061628.D	14DIOXBNA6.M	L1627700-06	WG929257,WG928760..	9/7/2016 7:50 am
29	F609061629.D	14DIOXBNA6.M	L1627700-07	WG929257,WG928760..	9/7/2016 8:34 am
30	F609061630.D	14DIOXBNA6.M	WG929215-1	WG929257,WG929215..	9/7/2016 9:18 am
31	F609061631.D	14DIOXBNA6.M	WG929215-2	WG929257,WG929215..	9/7/2016 10:02 am
32	F609061632.D	14DIOXBNA6.M	WG929215-3	WG929257,WG929215..	9/7/2016 10:46 am
33	F609061633.D	14DIOXBNA6.M	L1627335-01	WG929257,WG929215..	9/7/2016 11:30 am
34	F609061634.D	14DIOXBNA6.M	L1626610-06	WG929257,WG929215..	9/7/2016 12:15 pm

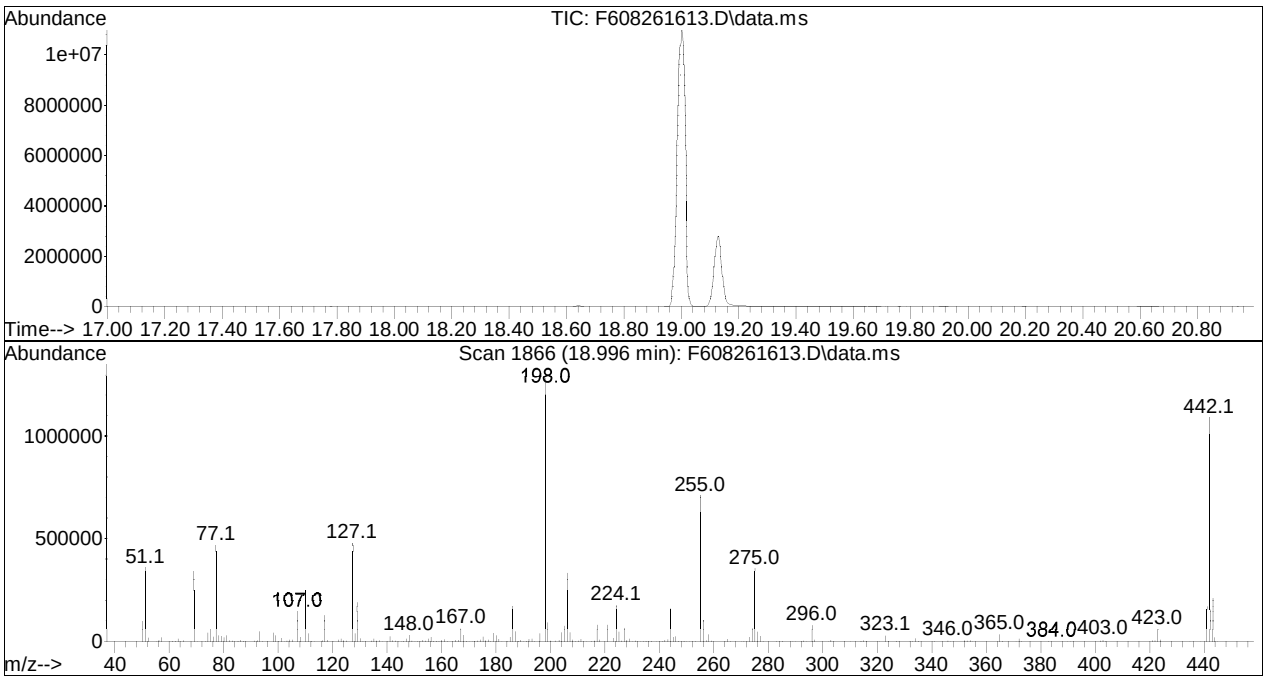
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261613.D
Acq On : 26 Aug 2016 10:14 pm
Operator : BNA6:WR
Sample : WG926828-1
Misc : WG926828,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



Spectrum Information: Scan 1866

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.0	359104	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	1741	PASS
127	198	10	80	37.2	477952	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1284096	PASS
199	198	5	9	7.1	90720	PASS
275	198	10	60	27.6	354496	PASS
365	198	1	100	2.6	33928	PASS
441	442	0.01	24	15.1	164416	PASS
442	198	50	100	84.9	1090048	PASS
443	442	15	24	19.5	212544	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261614.D
Acq On : 26 Aug 2016 11:10 pm
Operator : BNA6:WR
Sample : WG926828-3
Misc : WG926828,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 29 09:22:59 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	85	-0.07
2	1,4-dioxane	1.433	1.370	4.4	79	-0.07
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	85	-0.08
4 s	1,4-dioxane-d8	0.433	0.418	3.5	84	-0.07

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261614.D
Acq On : 26 Aug 2016 11:10 pm
Operator : BNA6:WR
Sample : WG926828-3
Misc : WG926828,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 29 09:22:59 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.829	64	71221	500.000	ng/mL	-0.07
3) 1,4-Dichlorobenzene-d4	15.426	152	170534	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.829	64	71221	482.554	ng/mL	-0.07
Spiked Amount 500.000	Range 15 - 115		Recovery = 96.51%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.902	88	195212	956.316	ng/mL	98

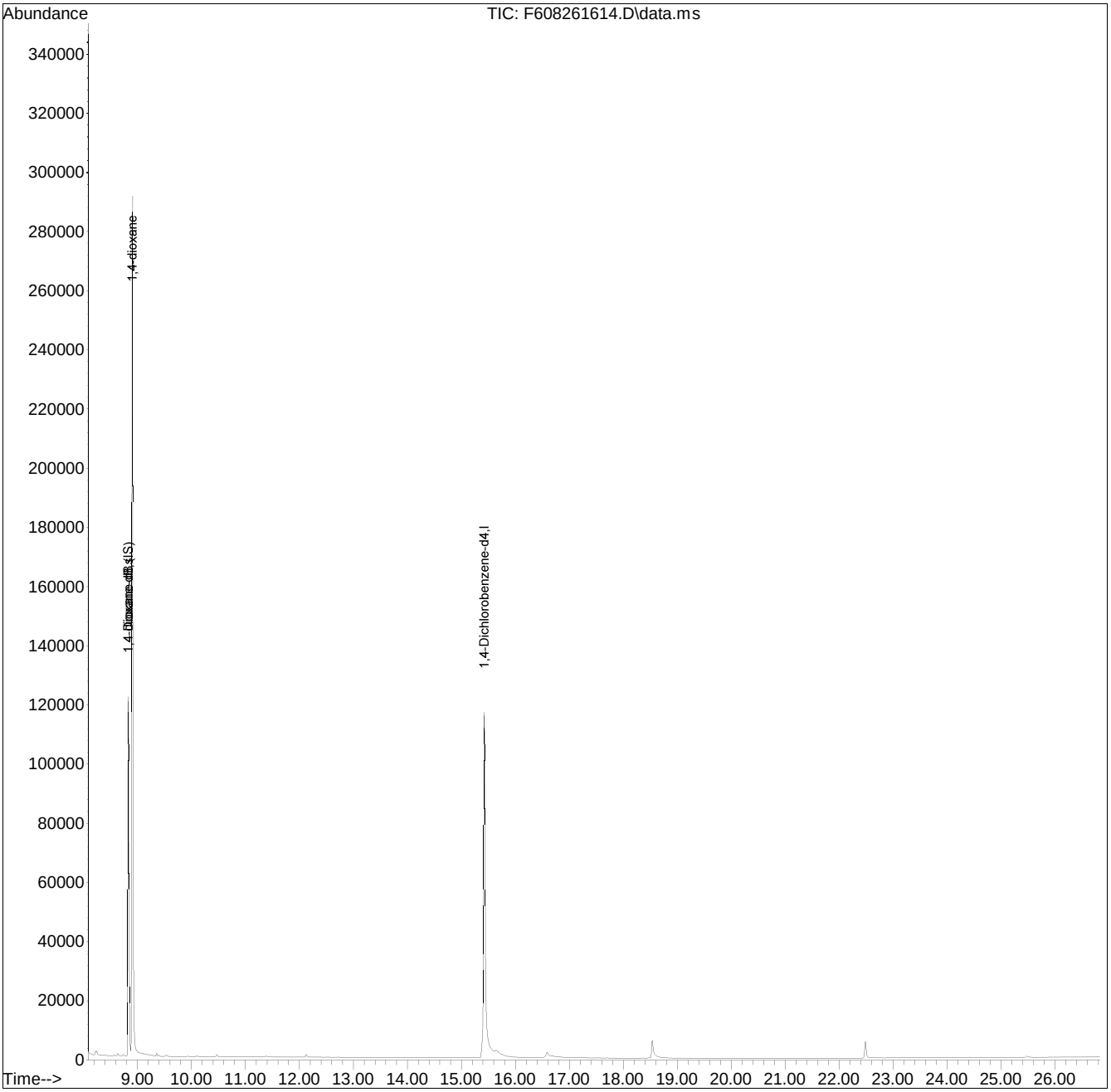
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261614.D
Acq On : 26 Aug 2016 11:10 pm
Operator : BNA6:WR
Sample : WG926828-3
Misc : WG926828,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 29 09:22:59 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



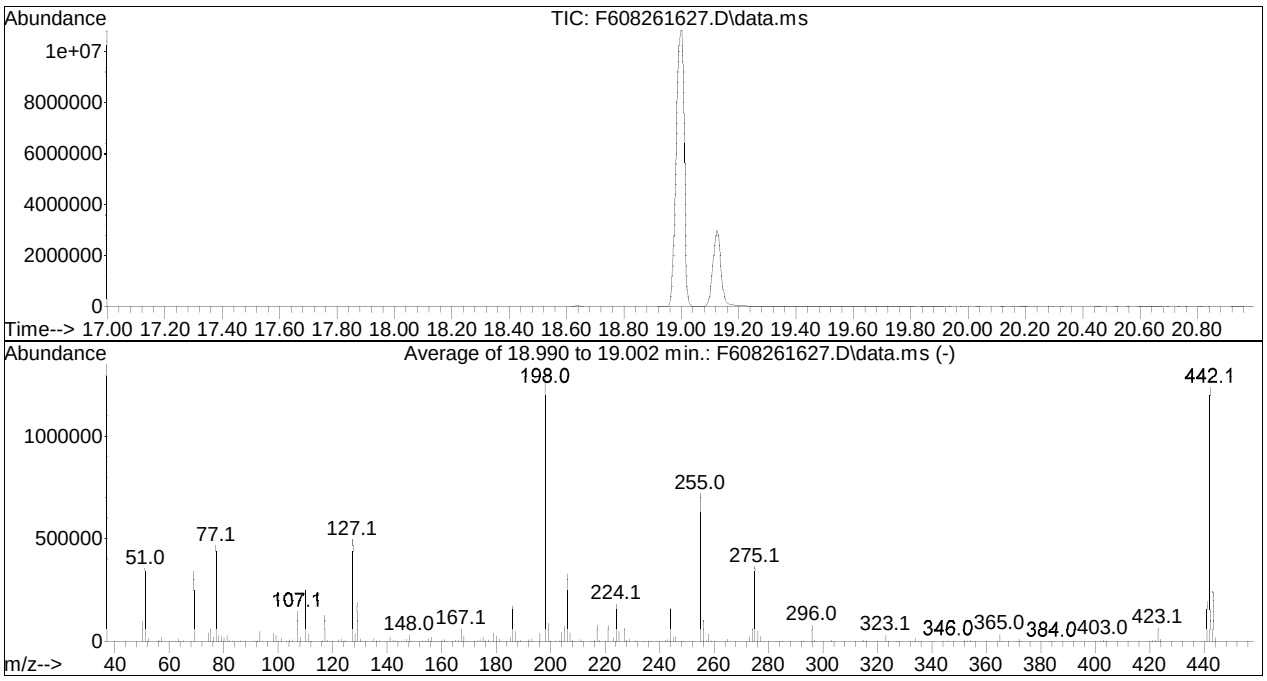
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261627.D
Acq On : 27 Aug 2016 8:36 am
Operator : BNA6:WR
Sample : WG926828-4
Misc : WG926828,MSAK38
ALS Vial : 25 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



AutoFind: Scans 1865, 1866, 1867; Background Corrected with Scan 1851

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	27.6	355372	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2012	PASS
127	198	10	80	38.4	493974	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1285315	PASS
199	198	5	9	6.9	88725	PASS
275	198	10	60	28.2	362005	PASS
365	198	1	100	2.7	35245	PASS
441	442	0.01	24	15.6	193152	PASS
442	198	50	100	96.5	1240811	PASS
443	442	15	24	19.6	242795	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261628.D
Acq On : 27 Aug 2016 9:31 am
Operator : BNA6:WR
Sample : WG926828-6
Misc : WG926828,MSAK15
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Aug 29 09:23:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	78	-0.06
2	1,4-dioxane	1.433	1.470	-2.6	78	-0.06
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	83	-0.09
4 s	1,4-dioxane-d8	0.433	0.393	9.2	77	-0.06

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261628.D
Acq On : 27 Aug 2016 9:31 am
Operator : BNA6:WR
Sample : WG926828-6
Misc : WG926828,MSAK15
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Aug 29 09:23:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.837	64	65633	500.000	ng/mL	-0.06
3) 1,4-Dichlorobenzene-d4	15.422	152	167148	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.837	64	65633	453.701	ng/mL	-0.06
Spiked Amount 500.000	Range 15 - 115		Recovery = 90.74%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.910	88	192922	1025.563	ng/mL	98

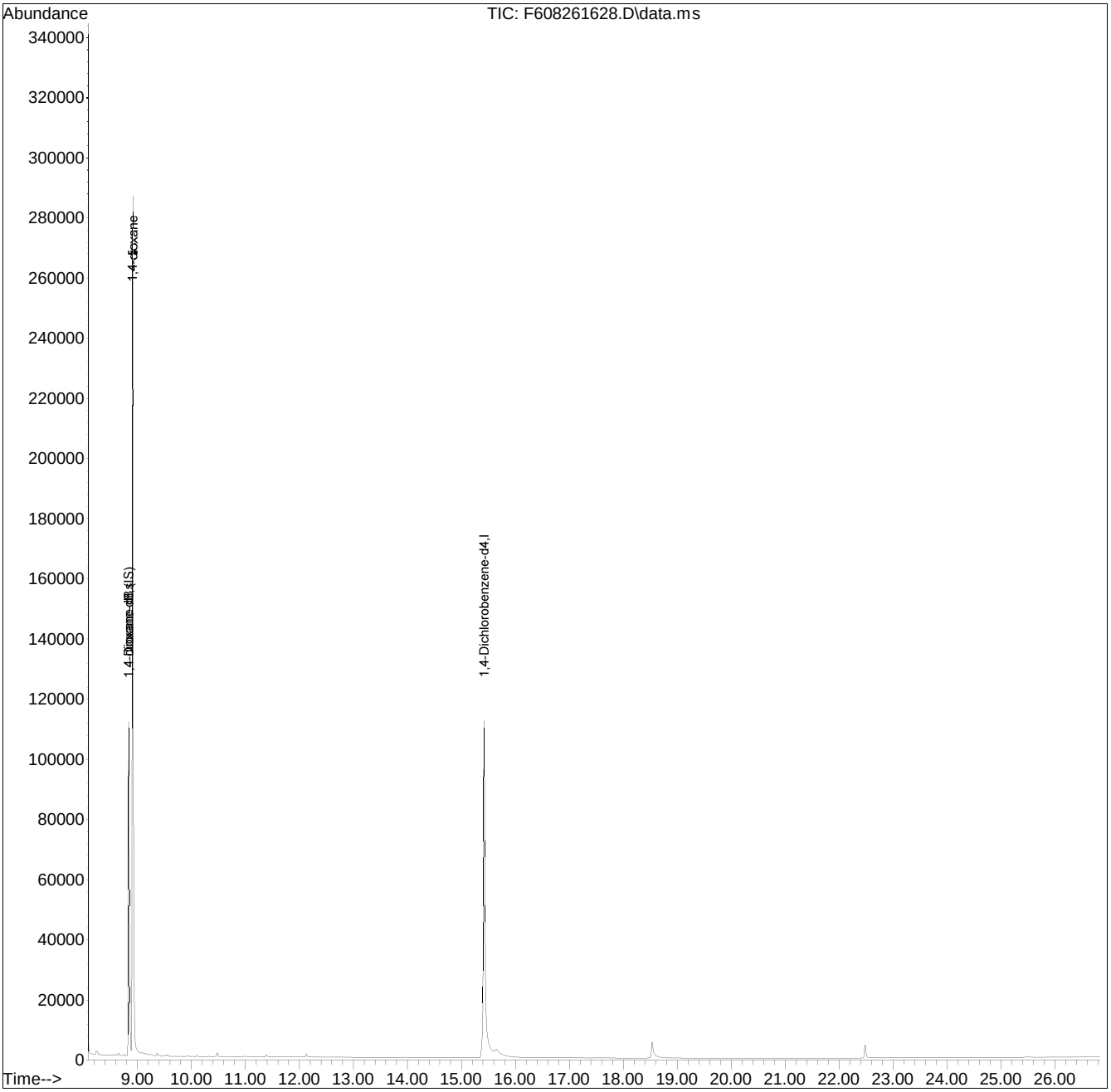
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261628.D
Acq On : 27 Aug 2016 9:31 am
Operator : BNA6:WR
Sample : WG926828-6
Misc : WG926828,MSAK15
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Aug 29 09:23:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261638.D
Acq On : 27 Aug 2016 4:52 pm
Operator : BNA6:WR
Sample : L1626610-01
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Aug 29 09:29:56 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.857	64	18106	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	167786	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.857	64	18106	124.685	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.94%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.923	88	342822	6606.160	ng/mL	97

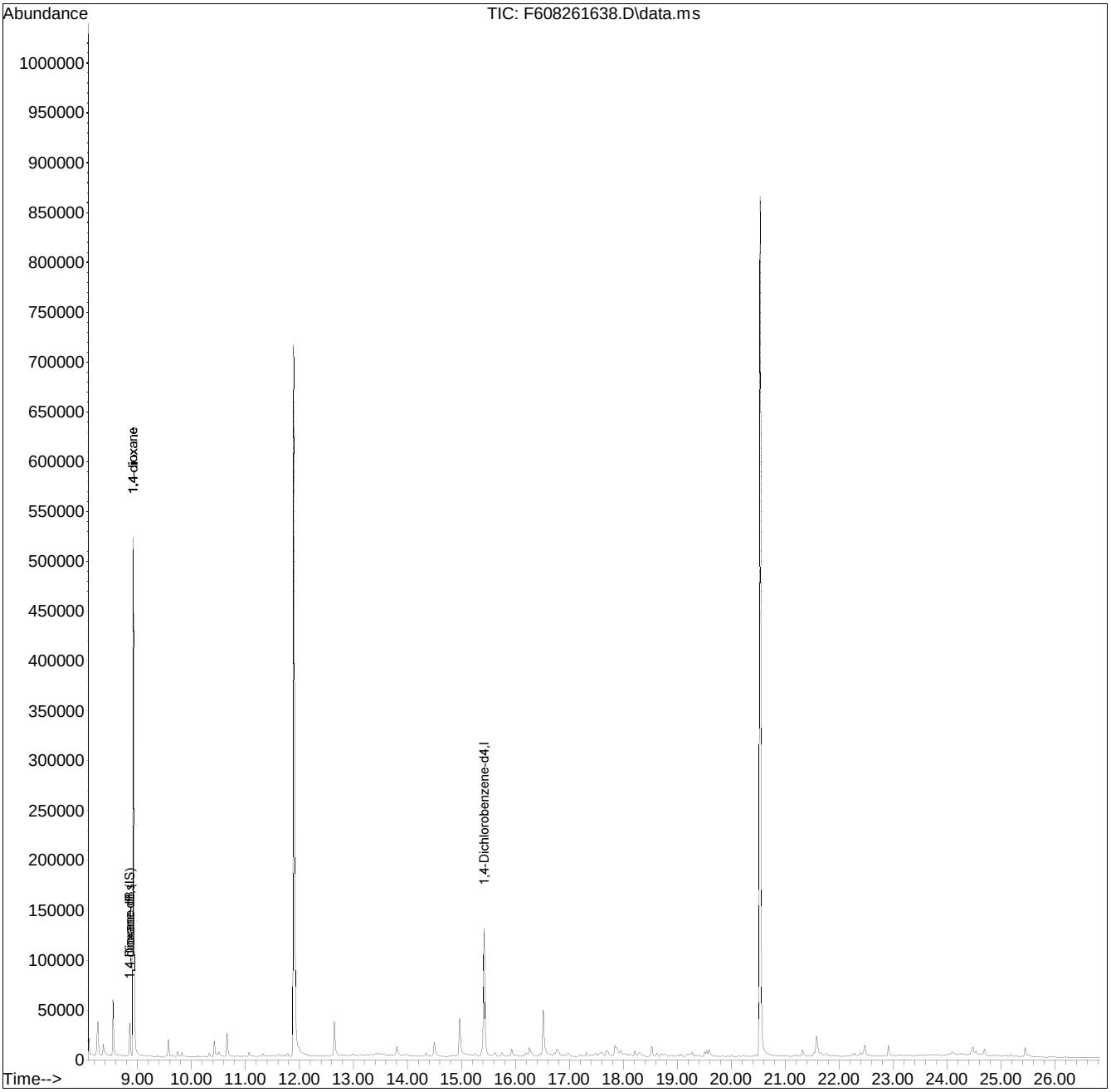
(#) = qualifier out of range (m) = manual integration (+) = signals summed

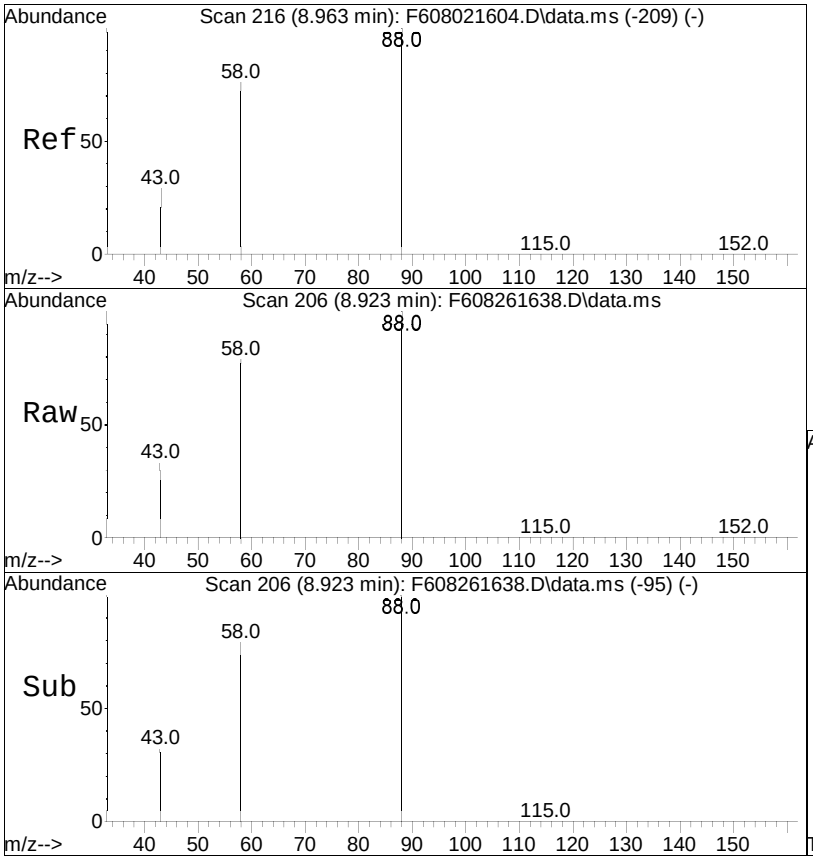
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261638.D
Acq On : 27 Aug 2016 4:52 pm
Operator : BNA6:WR
Sample : L1626610-01
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Aug 29 09:29:56 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

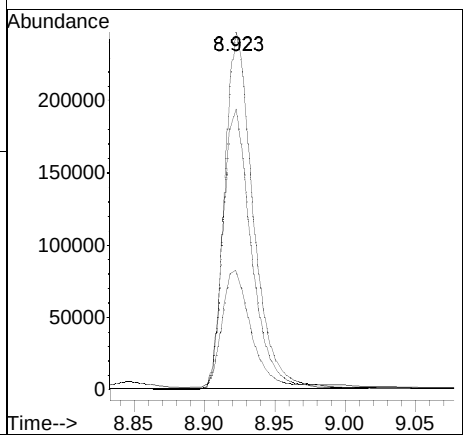




#2
1,4-dioxane
Concen: 6606.16 ng/mL
RT: 8.923 min Scan# 206
Delta R.T. -0.049 min
Lab File: F608261638.D
Acq: 27 Aug 2016 4:52 pm

Tgt Ion: 88 Resp: 342822

Ion	Ratio	Lower	Upper
88	100		
58	79.5	62.1	93.1
43	32.8	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261639.D
Acq On : 27 Aug 2016 5:36 pm
Operator : BNA6:WR
Sample : L1626610-02
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Aug 29 09:29:58 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.853	64	14771	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	171323	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.853	64	14771	99.619	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 19.92%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.923	88	87856	2075.221	ng/mL	98

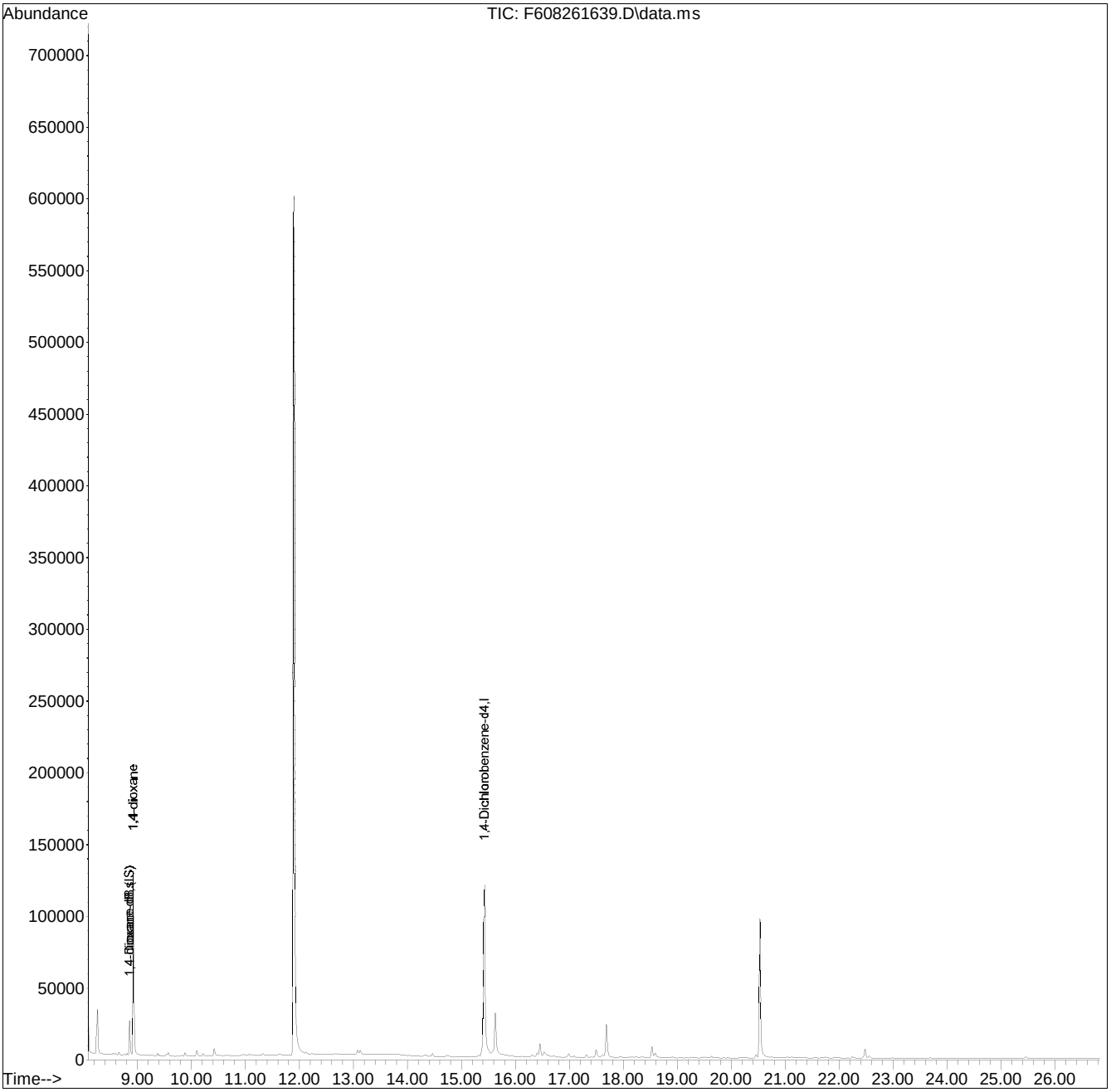
(#) = qualifier out of range (m) = manual integration (+) = signals summed

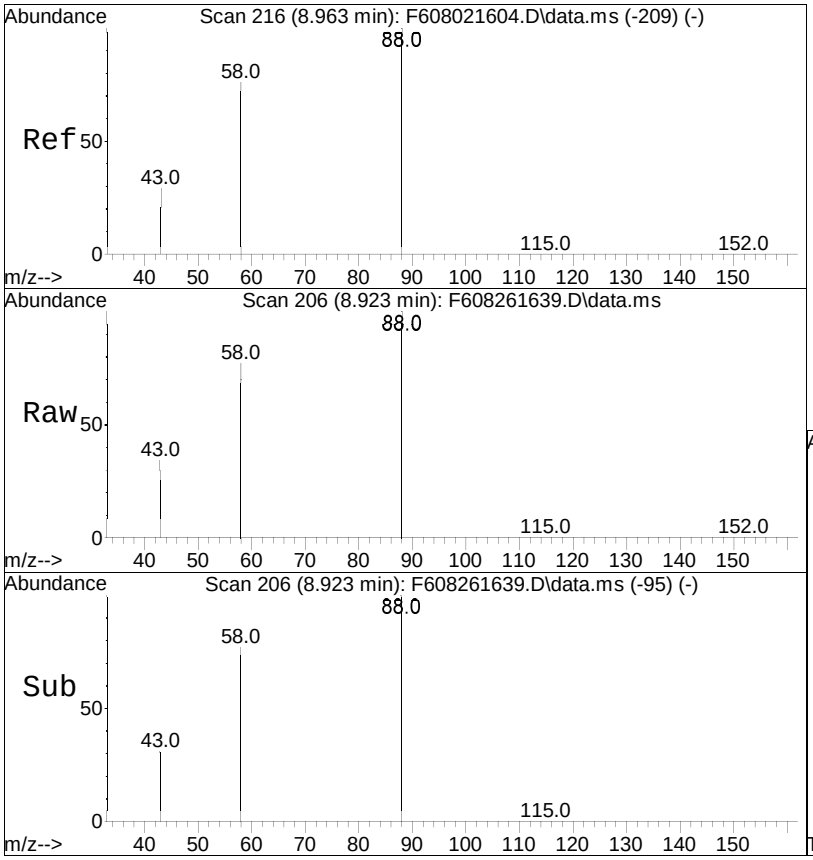
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261639.D
Acq On : 27 Aug 2016 5:36 pm
Operator : BNA6:WR
Sample : L1626610-02
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Aug 29 09:29:58 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

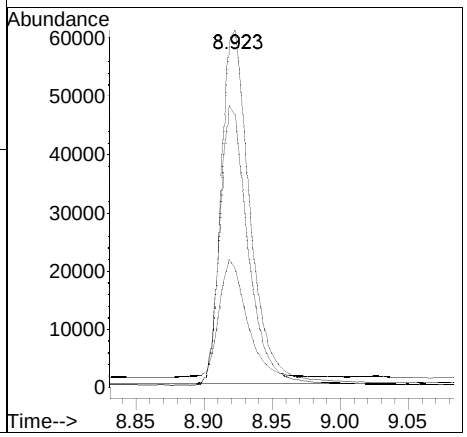




#2
1,4-dioxane
Concen: 2075.22 ng/mL
RT: 8.923 min Scan# 206
Delta R.T. -0.049 min
Lab File: F608261639.D
Acq: 27 Aug 2016 5:36 pm

Tgt Ion: 88 Resp: 87856

Ion	Ratio	Lower	Upper
88	100		
58	78.9	62.1	93.1
43	32.7	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261640.D
Acq On : 27 Aug 2016 6:20 pm
Operator : BNA6:WR
Sample : L1626610-03
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Aug 30 14:17:56 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

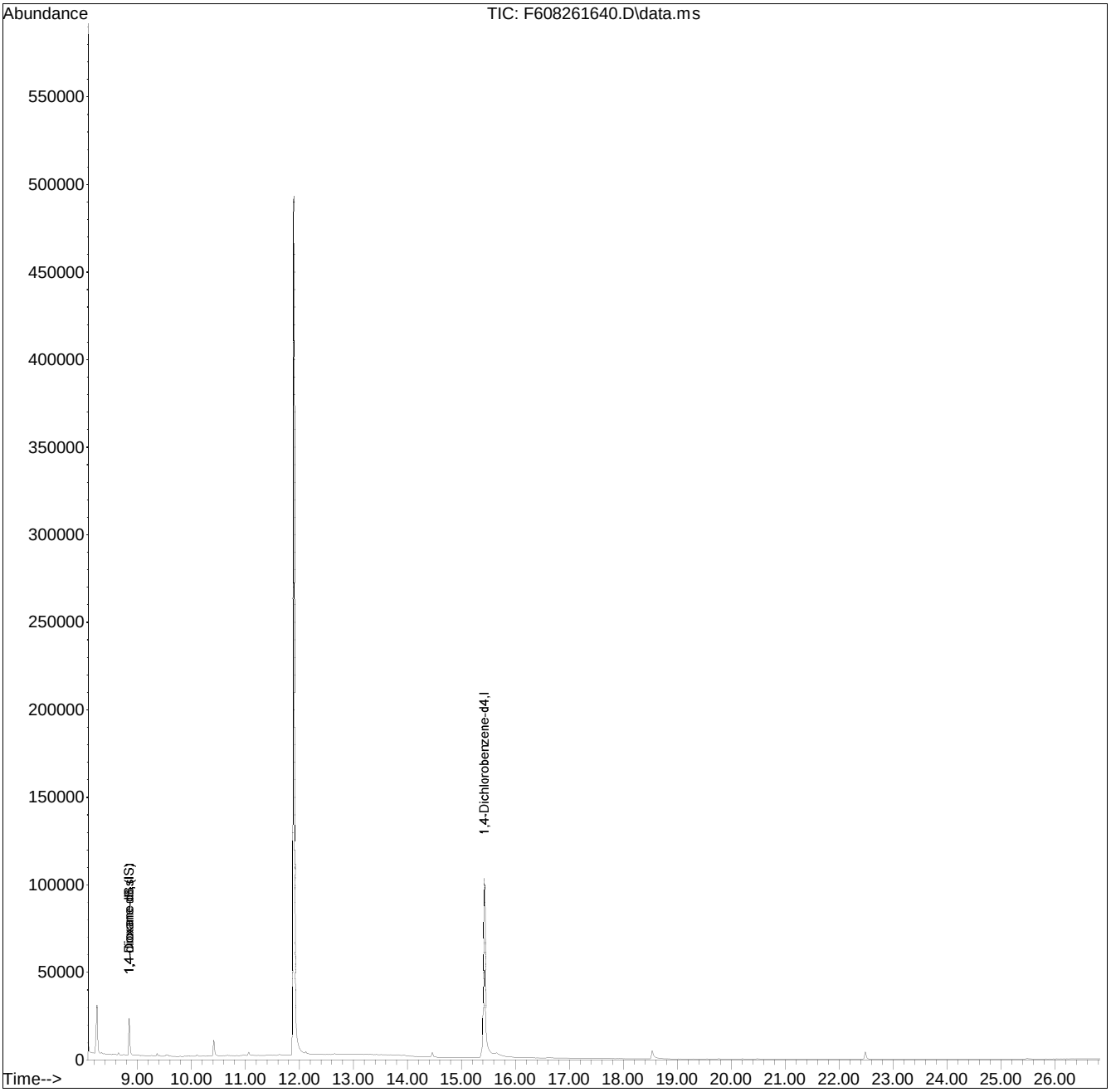
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.849	64	13443	500.000	ng/mL	-0.05
3) 1,4-Dichlorobenzene-d4	15.422	152	156781	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.849	64	13443	99.072	ng/mL	-0.05
Spiked Amount 500.000	Range 15 - 115		Recovery = 19.81%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261640.D
Acq On : 27 Aug 2016 6:20 pm
Operator : BNA6:WR
Sample : L1626610-03
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Aug 30 14:17:56 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



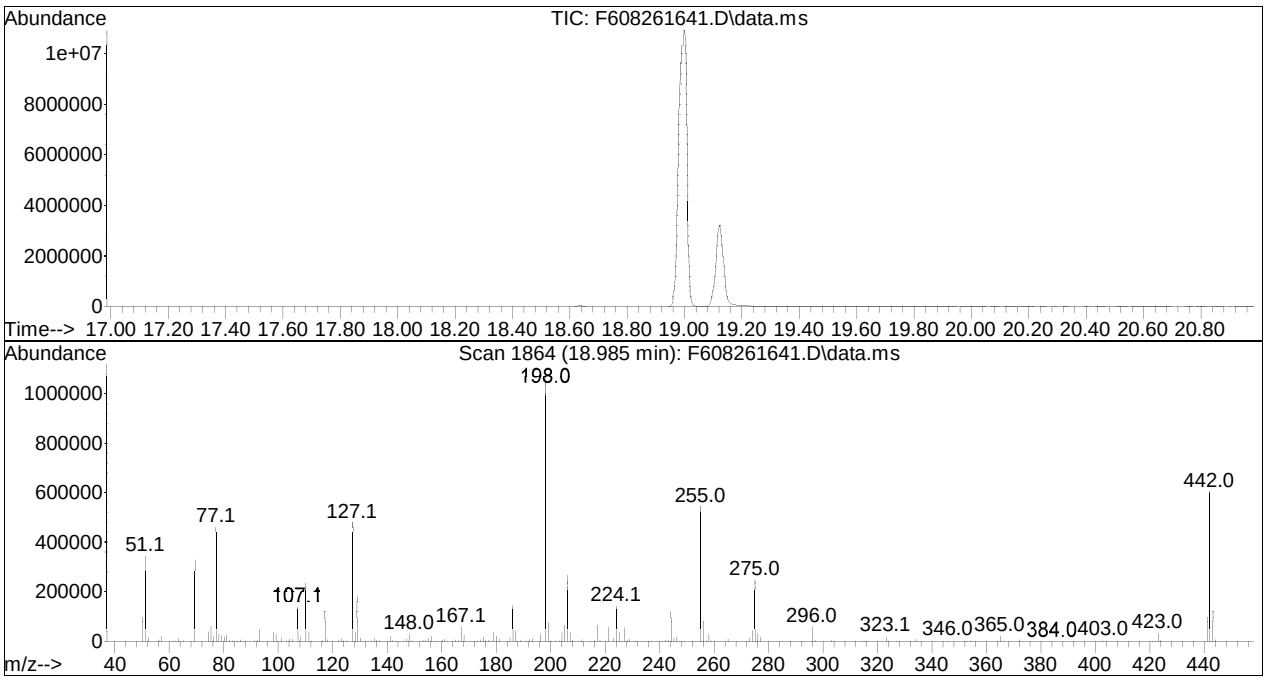
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261641.D
Acq On : 27 Aug 2016 7:01 pm
Operator : BNA6:WR
Sample : WG926828-7
Misc : WG926828,MSAK38
ALS Vial : 39 Sample Multiplier: 1

Integration File: SHCINT2.E

Method : O:\Forensics\Data\FID17\2016\Aug\Aug29\HC17102615F.M
Title : FID Forensics
Last Update : Tue Aug 30 09:55:38 2016



Spectrum Information: Scan 1864

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.2	342912	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	30.8	327680	PASS
70	69	0.00	2	0.5	1713	PASS
127	198	40	60	44.9	478528	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	1064960	PASS
199	198	5	9	7.0	74624	PASS
275	198	10	30	23.2	247424	PASS
365	198	1	100	2.2	23328	PASS
441	443	0.01	100	75.9	95120	PASS
442	198	40	100	56.8	604480	PASS
443	442	17	23	20.7	125344	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261642.D
Acq On : 27 Aug 2016 7:56 pm
Operator : BNA6:WR
Sample : WG926828-9
Misc : WG926828,MSAK15
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Aug 29 09:25:03 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	90	-0.07
2	1,4-dioxane	1.433	1.359	5.2	83	-0.07
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	-0.09
4 s	1,4-dioxane-d8	0.433	0.396	8.5	88	-0.07

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261642.D
Acq On : 27 Aug 2016 7:56 pm
Operator : BNA6:WR
Sample : WG926828-9
Misc : WG926828,MSAK15
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Aug 29 09:25:03 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.825	64	75028	500.000	ng/mL	-0.07
3) 1,4-Dichlorobenzene-d4	15.418	152	189244	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.825	64	75028	458.089	ng/mL	-0.07
Spiked Amount 500.000	Range 15 - 115		Recovery = 91.62%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.898	88	203982	948.574	ng/mL	98

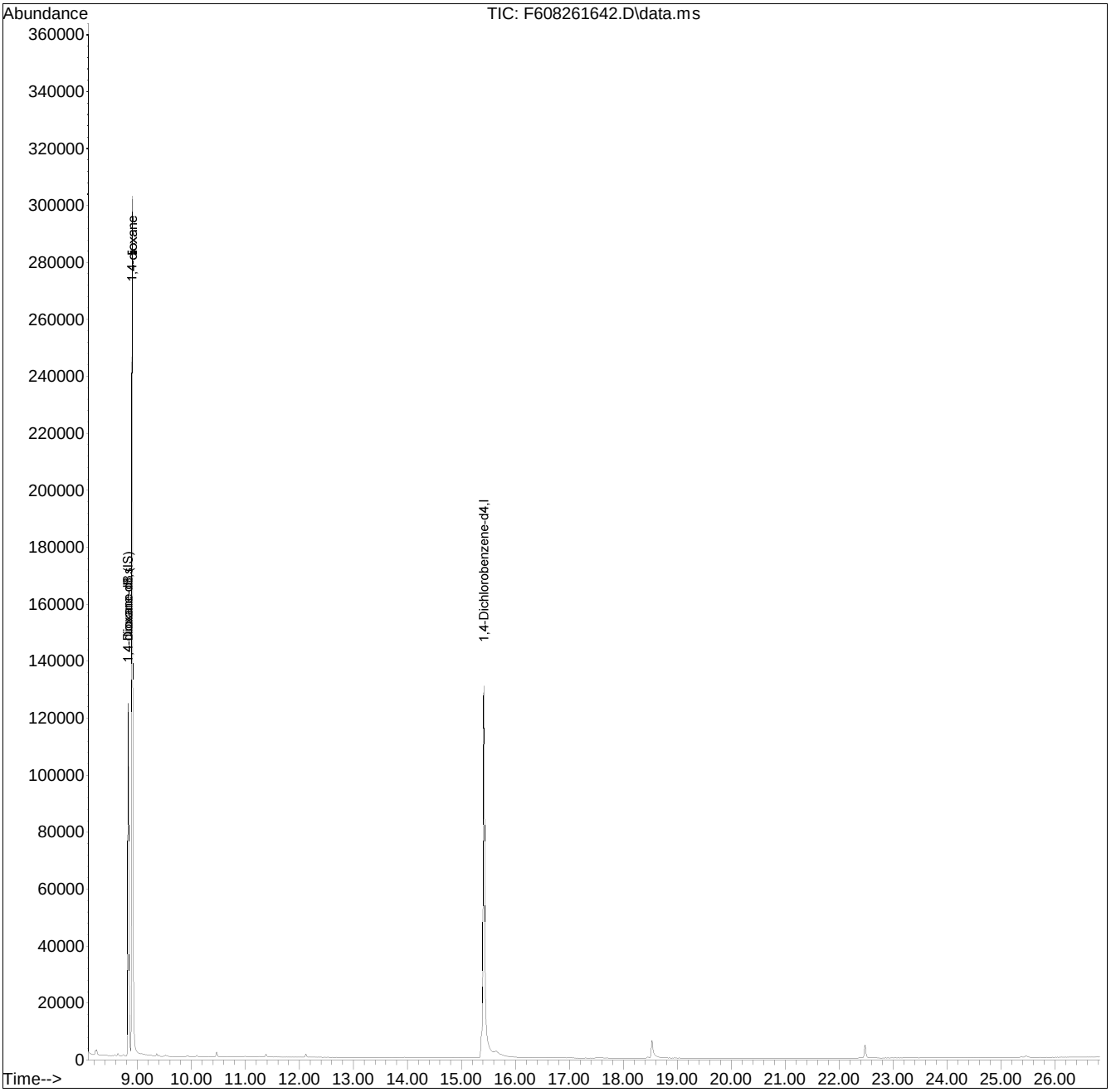
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261642.D
Acq On : 27 Aug 2016 7:56 pm
Operator : BNA6:WR
Sample : WG926828-9
Misc : WG926828,MSAK15
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Aug 29 09:25:03 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261643.D
Acq On : 27 Aug 2016 8:40 pm
Operator : BNA6:WR
Sample : L1626610-04
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Aug 30 14:19:55 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

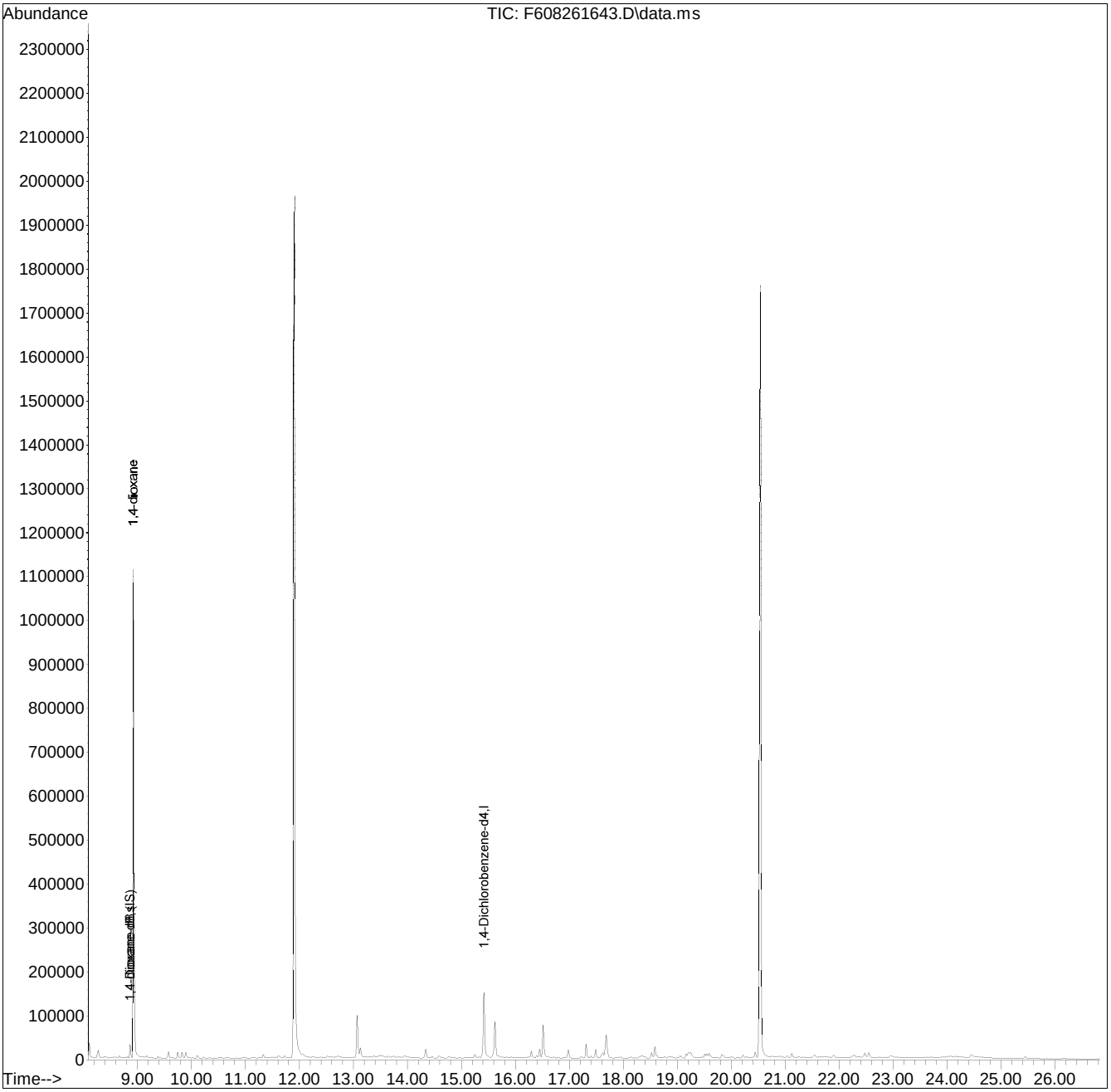
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.861	64	17787	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.418	152	184313	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.861	64	17787	111.505	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 22.30%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.923	88	745671M4	14626.737	ng/mL	

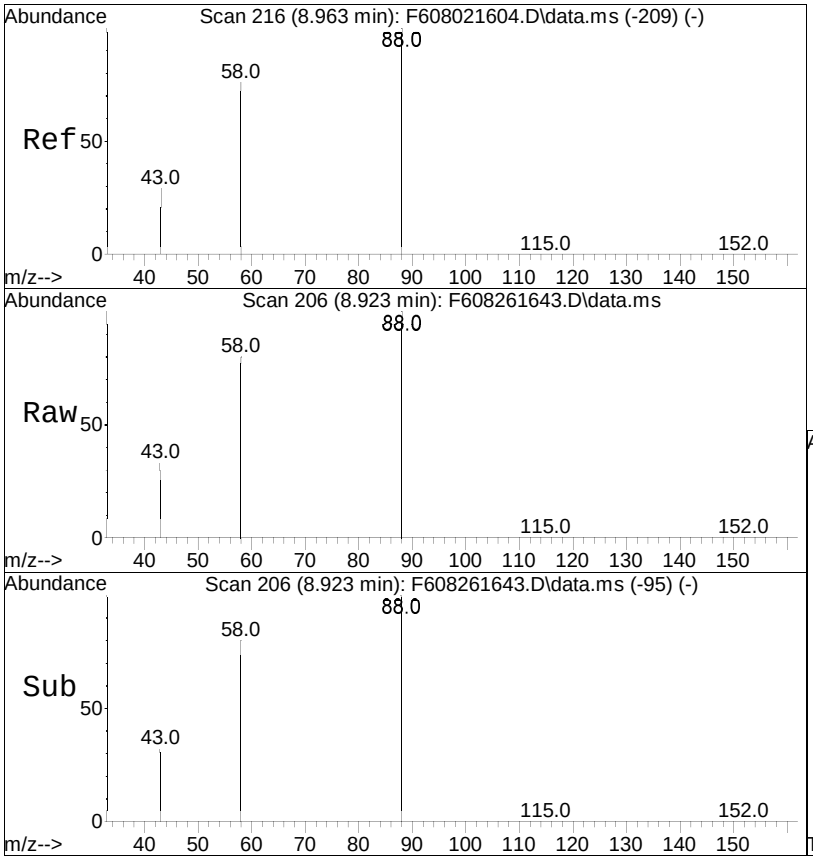
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261643.D
Acq On : 27 Aug 2016 8:40 pm
Operator : BNA6:WR
Sample : L1626610-04
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Aug 30 14:19:55 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

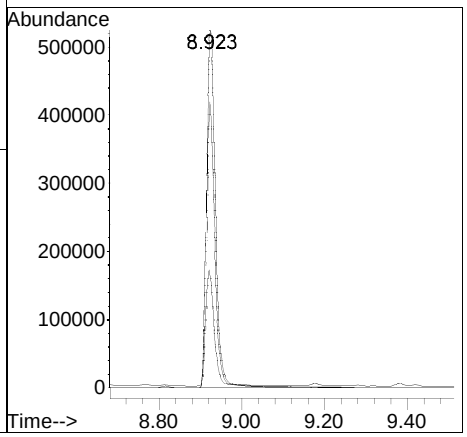




#2
1,4-dioxane
Concen: 14626.74 ng/mL M4
RT: 8.923 min Scan# 206
Delta R.T. -0.049 min
Lab File: F608261643.D
Acq: 27 Aug 2016 8:40 pm

Tgt Ion: 88 Resp: 745671

Ion	Ratio	Lower	Upper
88	100		
58	76.9	62.1	93.1
43	31.2	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261644.D
Acq On : 27 Aug 2016 9:24 pm
Operator : BNA6:WR
Sample : L1626610-05
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Aug 30 14:20:53 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

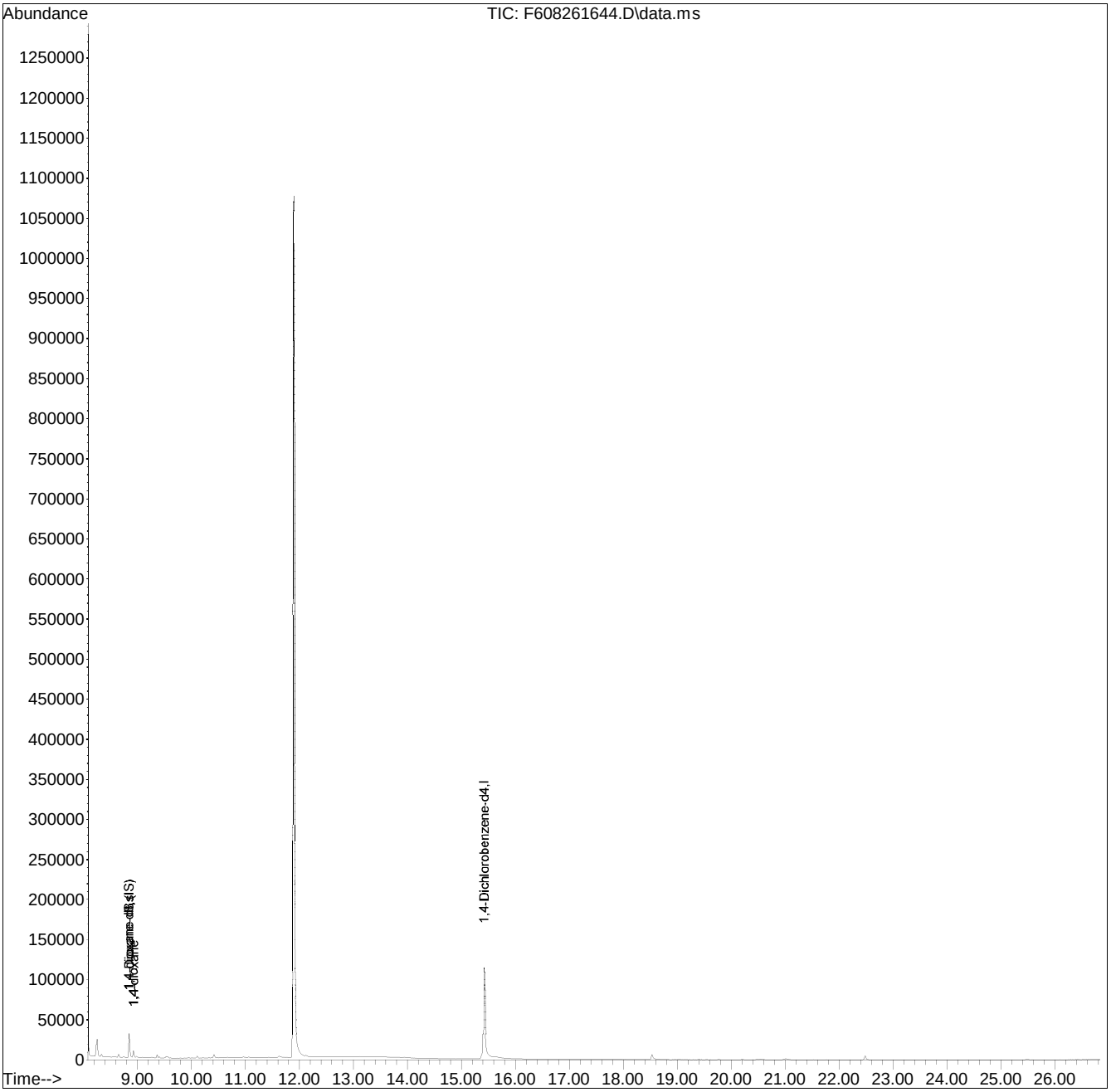
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.849	64	17773	500.000	ng/mL	-0.05
3) 1,4-Dichlorobenzene-d4	15.418	152	171464	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.849	64	17773	119.767	ng/mL	-0.05
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.95%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.931	88	5595M4	109.835	ng/mL	

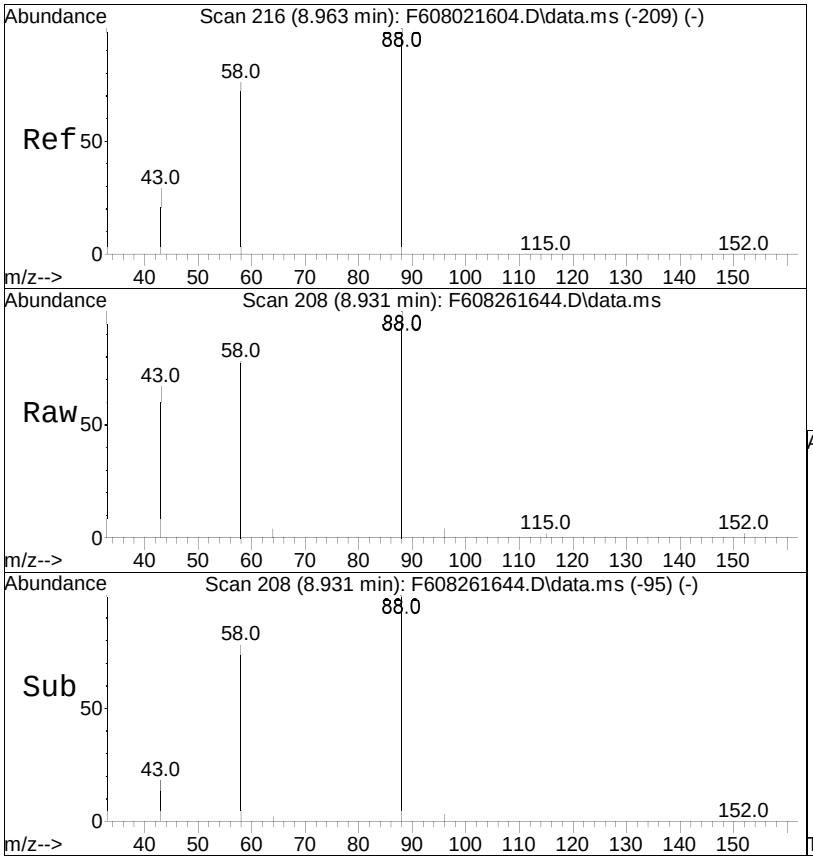
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261644.D
Acq On : 27 Aug 2016 9:24 pm
Operator : BNA6:WR
Sample : L1626610-05
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Aug 30 14:20:53 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

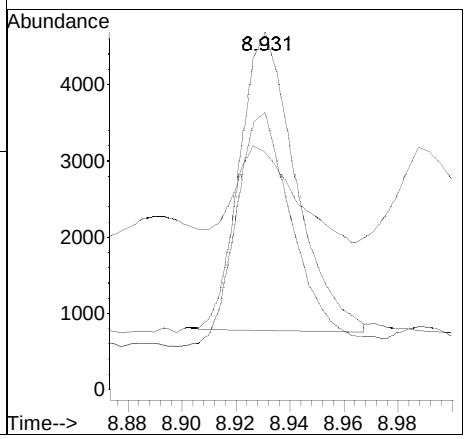




#2
1,4-dioxane
Concen: 109.84 ng/mL M4
RT: 8.931 min Scan# 208
Delta R.T. -0.041 min
Lab File: F608261644.D
Acq: 27 Aug 2016 9:24 pm

Tgt Ion: 88 Resp: 5595

Ion	Ratio	Lower	Upper
88	100		
58	80.4	62.1	93.1
43	34.2	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261645.D
Acq On : 27 Aug 2016 10:07 pm
Operator : BNA6:WR
Sample : L1626610-06
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Aug 30 14:21:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.858	64	14726	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.418	152	178780	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.858	64	14726	95.173	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 19.03%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.919	88	654784M4	15513.728	ng/mL	

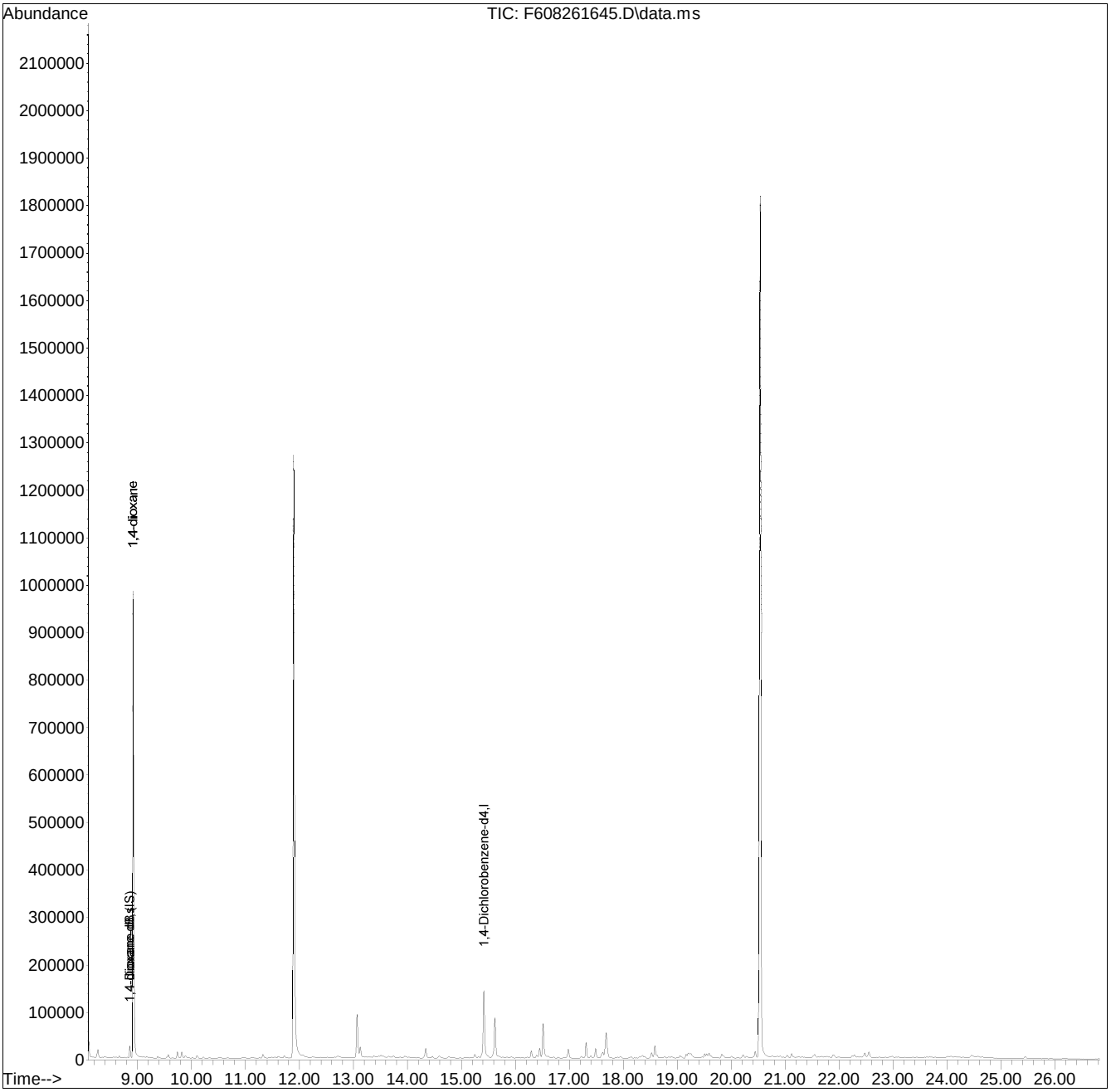
(#) = qualifier out of range (m) = manual integration (+) = signals summed

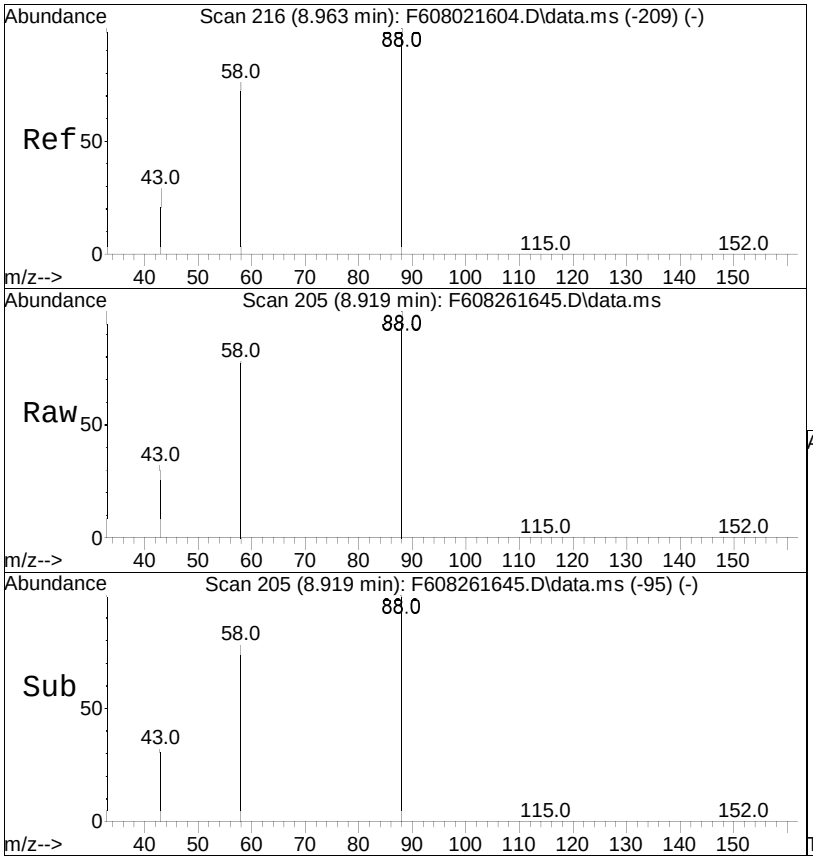
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261645.D
Acq On : 27 Aug 2016 10:07 pm
Operator : BNA6:WR
Sample : L1626610-06
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Aug 30 14:21:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

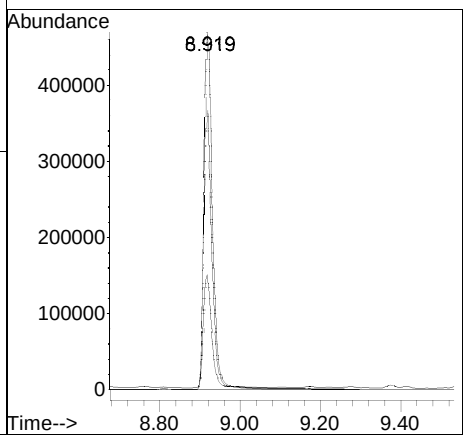




#2
1,4-dioxane
Concen: 15513.73 ng/mL M4
RT: 8.919 min Scan# 205
Delta R.T. -0.053 min
Lab File: F608261645.D
Acq: 27 Aug 2016 10:07 pm

Tgt Ion: 88 Resp: 654784

Ion	Ratio	Lower	Upper
88	100		
58	76.8	62.1	93.1
43	31.1	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261646.D
Acq On : 27 Aug 2016 10:51 pm
Operator : BNA6:WR
Sample : L1626610-07
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Aug 30 14:23:49 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.853	64	17706M4	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.418	152	183151	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.853	64	17700M4	111.664	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 22.33%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.923	88	114501M4	2256.273	ng/mL	

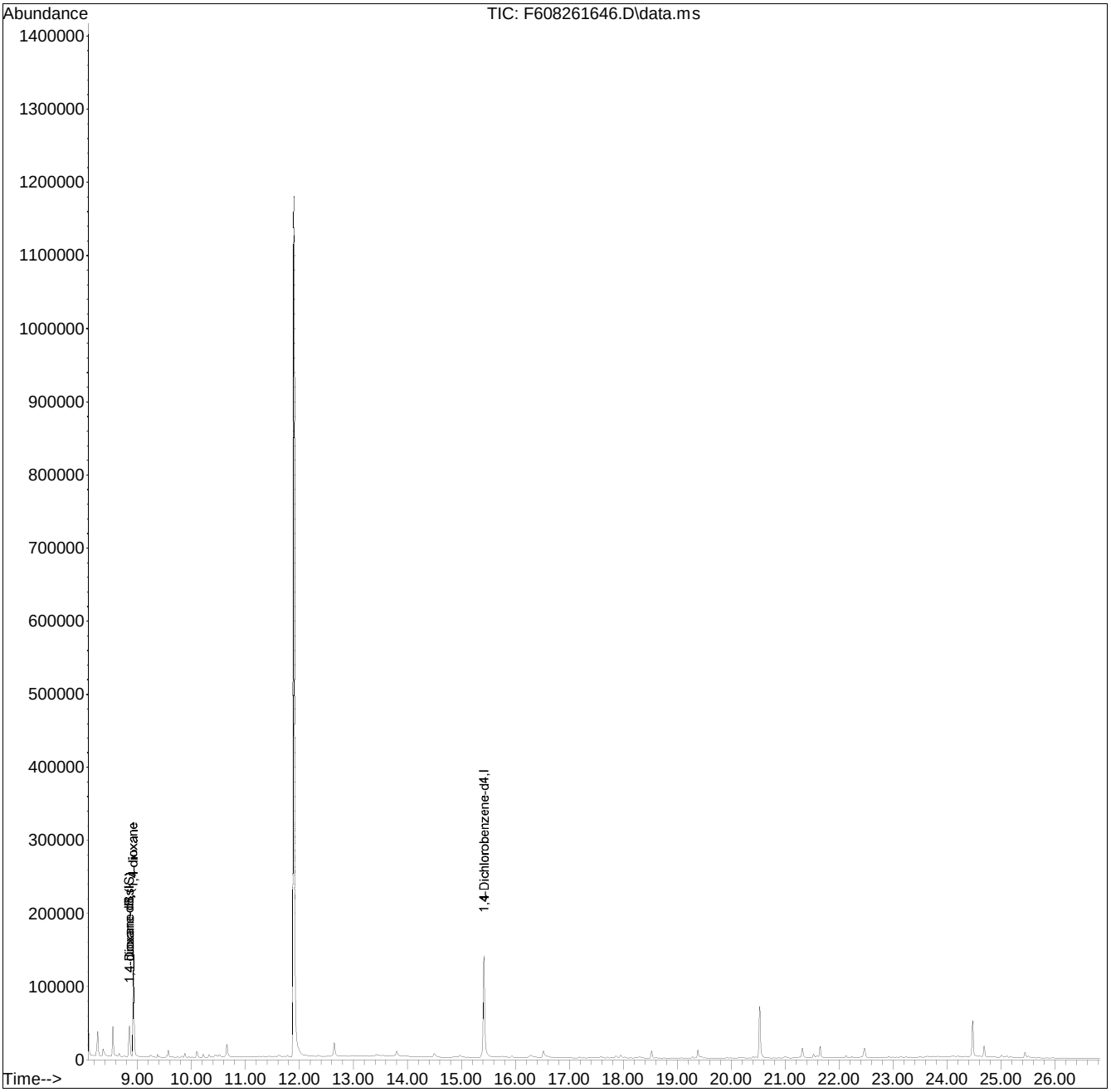
(#) = qualifier out of range (m) = manual integration (+) = signals summed

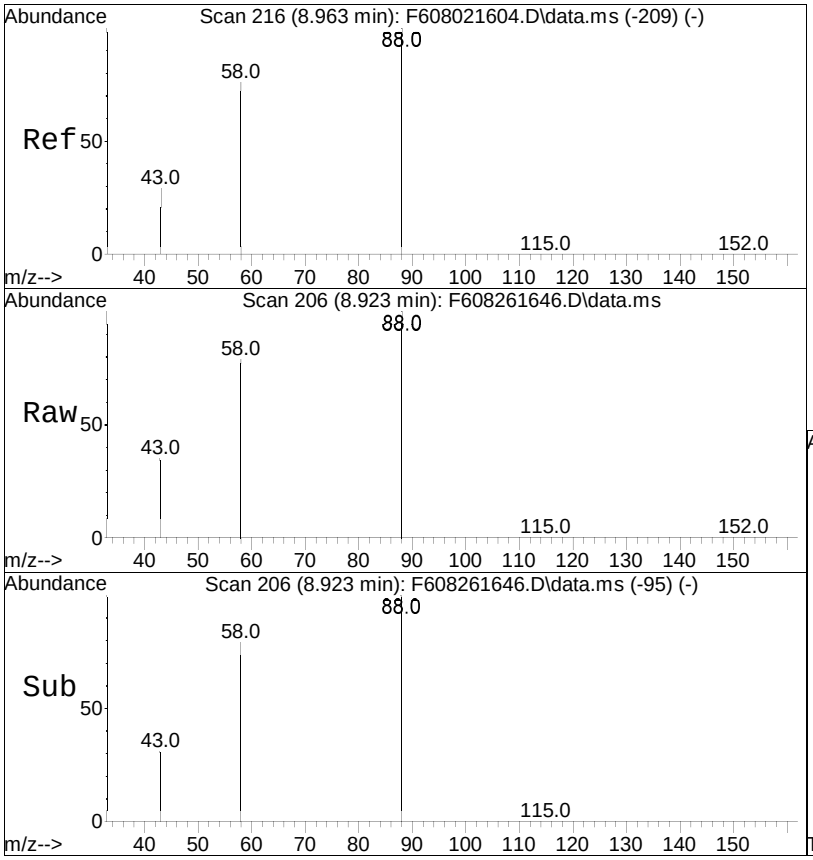
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261646.D
Acq On : 27 Aug 2016 10:51 pm
Operator : BNA6:WR
Sample : L1626610-07
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Aug 30 14:23:49 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

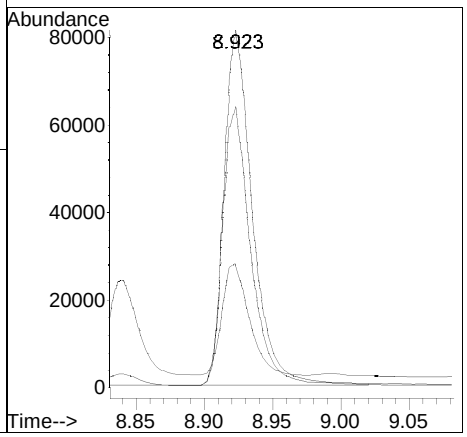




#2
1,4-dioxane
Concen: 2256.27 ng/mL M4
RT: 8.923 min Scan# 206
Delta R.T. -0.049 min
Lab File: F608261646.D
Acq: 27 Aug 2016 10:51 pm

Tgt Ion: 88 Resp: 114501

Ion	Ratio	Lower	Upper
88	100		
58	78.8	62.1	93.1
43	30.9	24.4	36.6



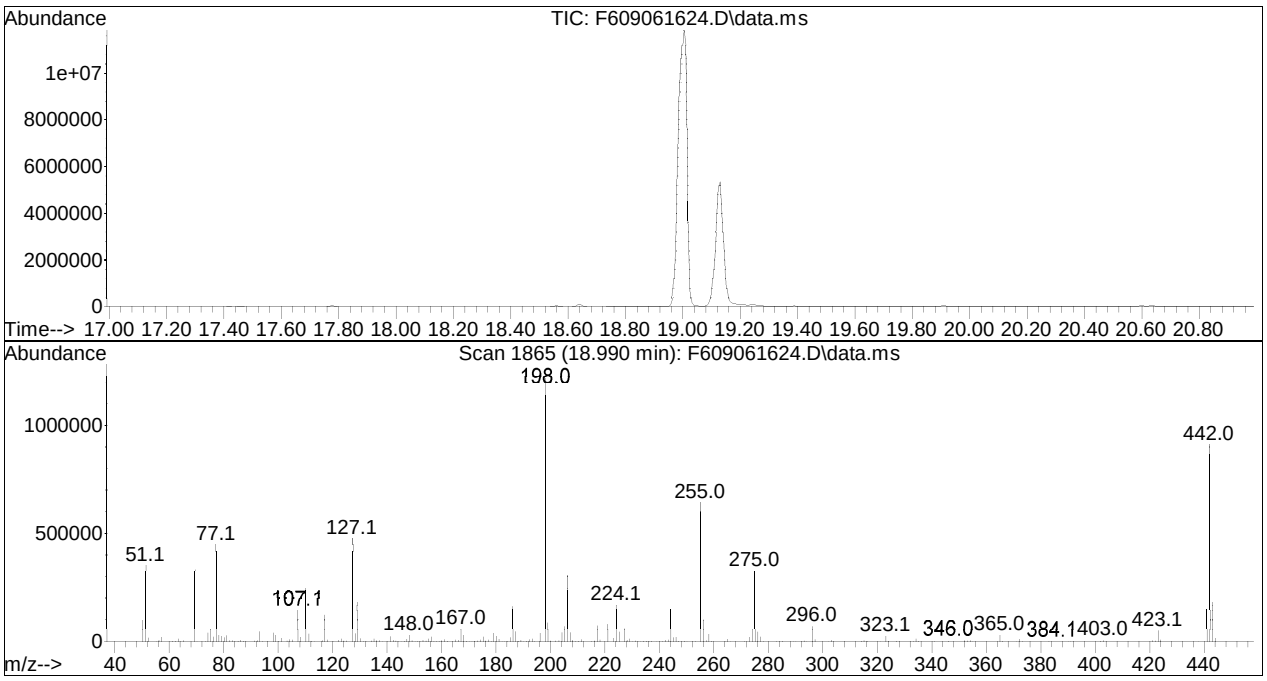
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061624.D
Acq On : 7 Sep 2016 4:42 am
Operator : BNA6:WR
Sample : WG929257-4
Misc : WG929257,MSAK38
ALS Vial : 22 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Wed Sep 07 11:57:18 2016



Spectrum Information: Scan 1865

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.6	349504	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	1948	PASS
127	198	10	80	38.7	472896	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1220608	PASS
199	198	5	9	6.9	83856	PASS
275	198	10	60	26.7	325632	PASS
365	198	1	100	2.5	29976	PASS
441	442	0.01	24	16.0	145792	PASS
442	198	50	100	74.6	910528	PASS
443	442	15	24	20.0	182016	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061625.D
Acq On : 7 Sep 2016 5:38 am
Operator : BNA6:WR
Sample : WG929257-6
Misc : WG929257,MSAK46
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 07 11:58:21 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:57:18 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	98	0.02
2	1,4-dioxane	1.317	1.350	-2.5	97	0.02
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00
4 s	1,4-dioxane-d8	0.369	0.350	5.1	92	0.02

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061625.D
Acq On : 7 Sep 2016 5:38 am
Operator : BNA6:WR
Sample : WG929257-6
Misc : WG929257,MSAK46
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 07 11:58:21 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:57:18 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.833	64	80805	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.422	152	230892	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.833	64	80805	474.243	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 94.85%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.910	88	218117	1024.680	ng/mL	100

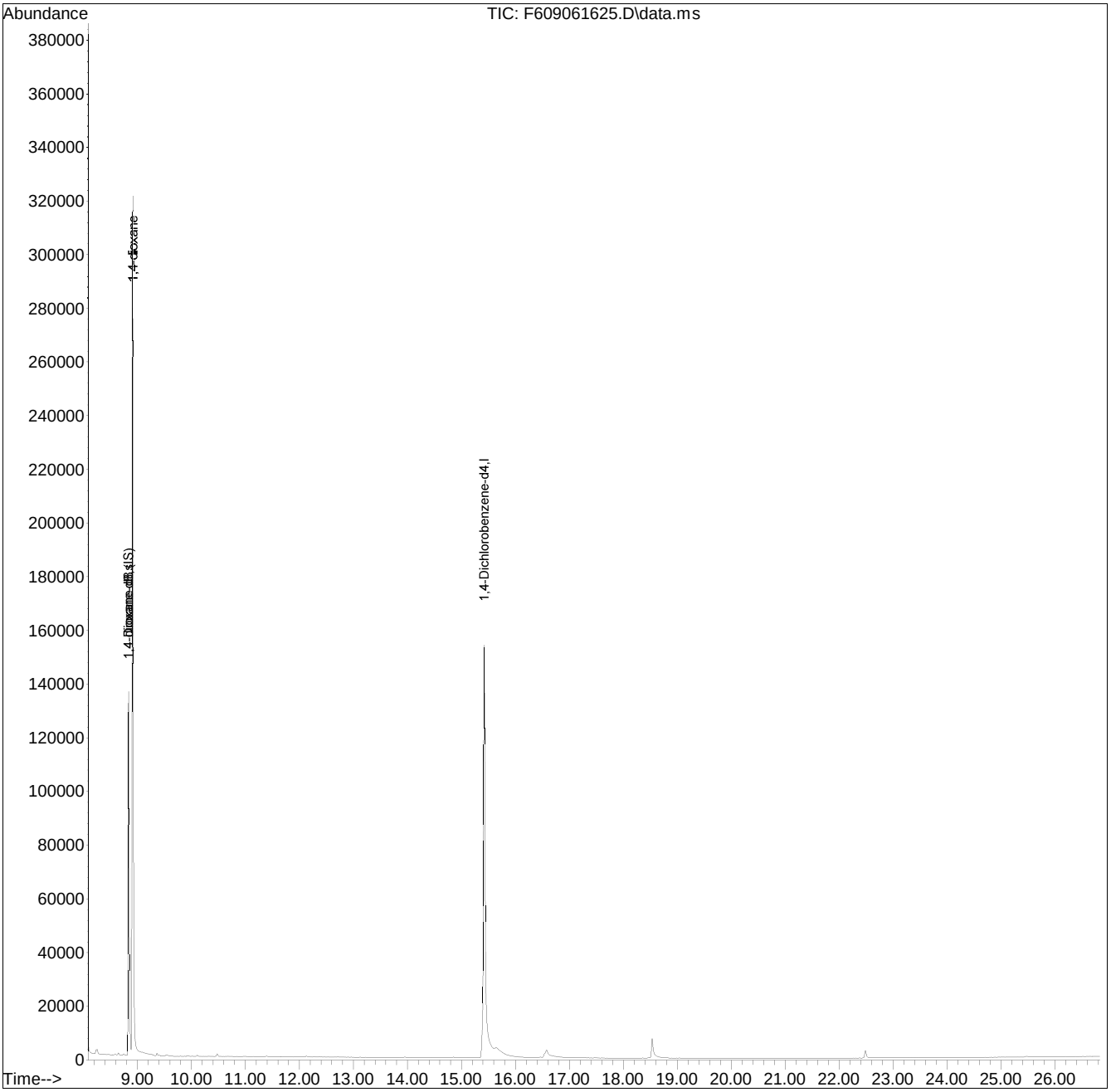
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061625.D
Acq On : 7 Sep 2016 5:38 am
Operator : BNA6:WR
Sample : WG929257-6
Misc : WG929257,MSAK46
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 07 11:58:21 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:57:18 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061634.D
Acq On : 7 Sep 2016 12:15 pm
Operator : BNA6:WR
Sample : L1626610-06
Misc : WG929257,WG929215,ICAL12851
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 07 13:53:16 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:02:54 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.853	64	17217	500.000	ng/mL	0.04
3) 1,4-Dichlorobenzene-d4	15.418	152	193703	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.853	64	17217	120.446	ng/mL	0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.09%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.923	88	129715	2860.024	ng/mL	98

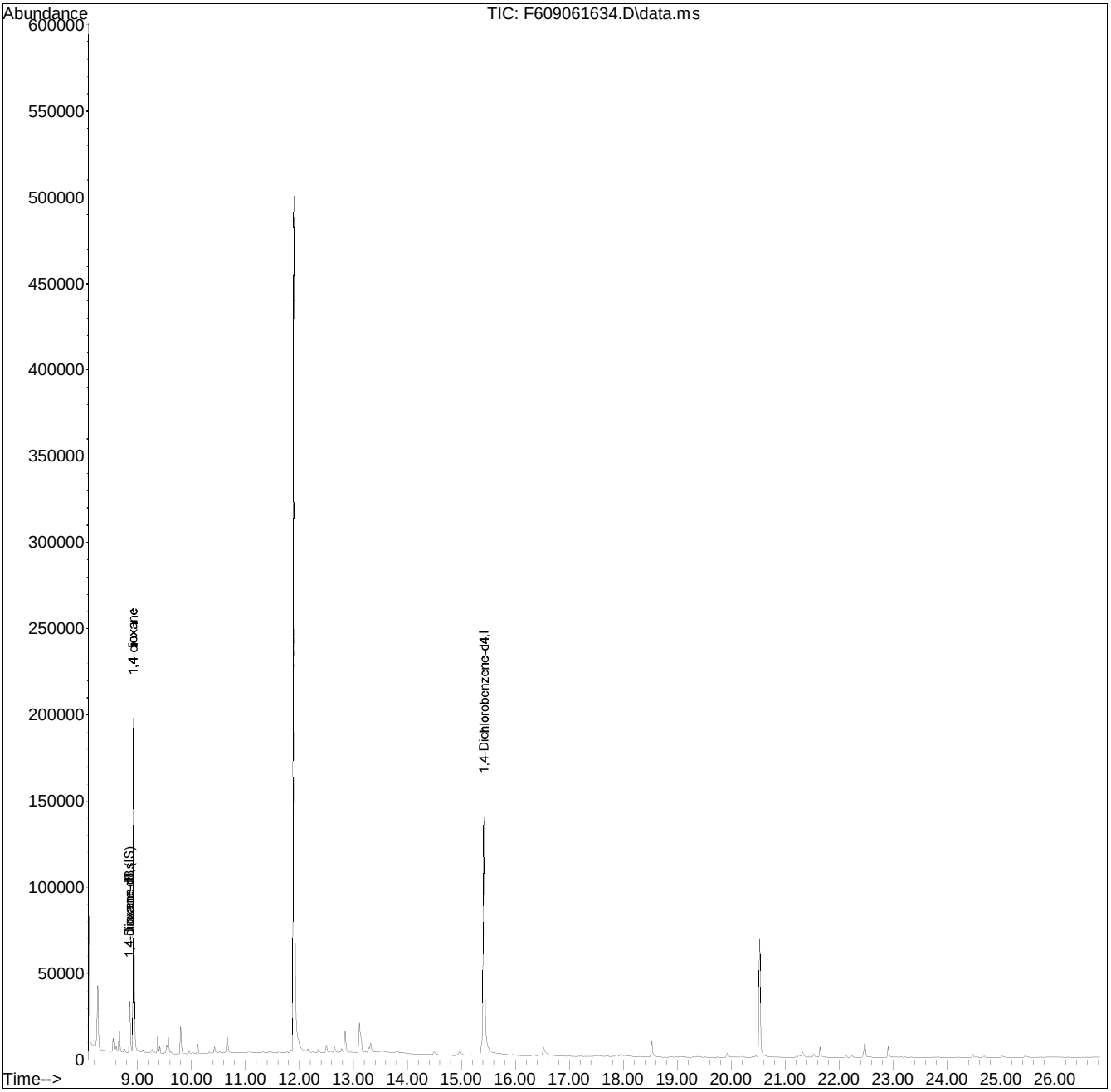
(#) = qualifier out of range (m) = manual integration (+) = signals summed

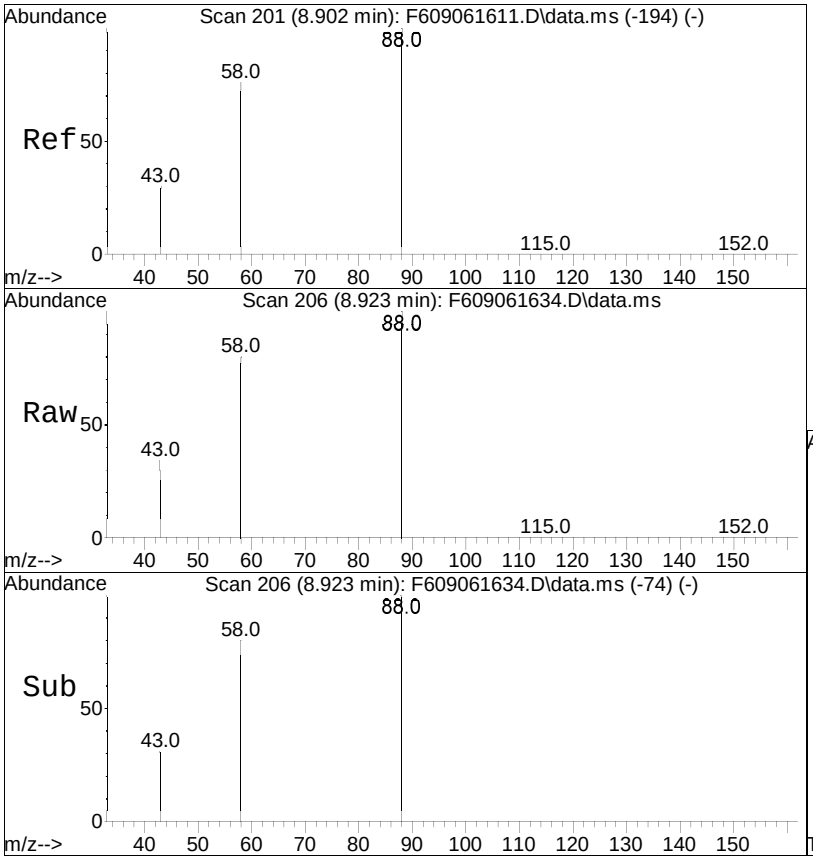
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061634.D
Acq On : 7 Sep 2016 12:15 pm
Operator : BNA6:WR
Sample : L1626610-06
Misc : WG929257,WG929215,ICAL12851
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Sep 07 13:53:16 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:02:54 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

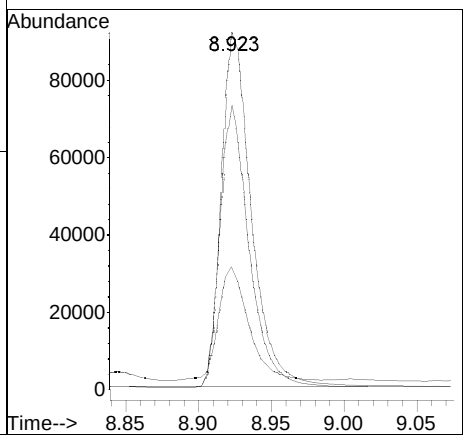




#2
1,4-dioxane
Concen: 2860.02 ng/mL
RT: 8.923 min Scan# 206
Delta R.T. 0.037 min
Lab File: F609061634.D
Acq: 7 Sep 2016 12:15 pm

Tgt Ion: 88 Resp: 129715

Ion	Ratio	Lower	Upper
88	100		
58	78.6	62.1	93.1
43	32.5	24.4	36.6



Batch Quality Control

Method Blank
Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261620.D
Acq On : 27 Aug 2016 3:34 am
Operator : BNA6:WR
Sample : WG926303-1
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 30 14:03:24 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.878	64	17912	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.426	152	157984	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.878	64	17912	131.002	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 26.20%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

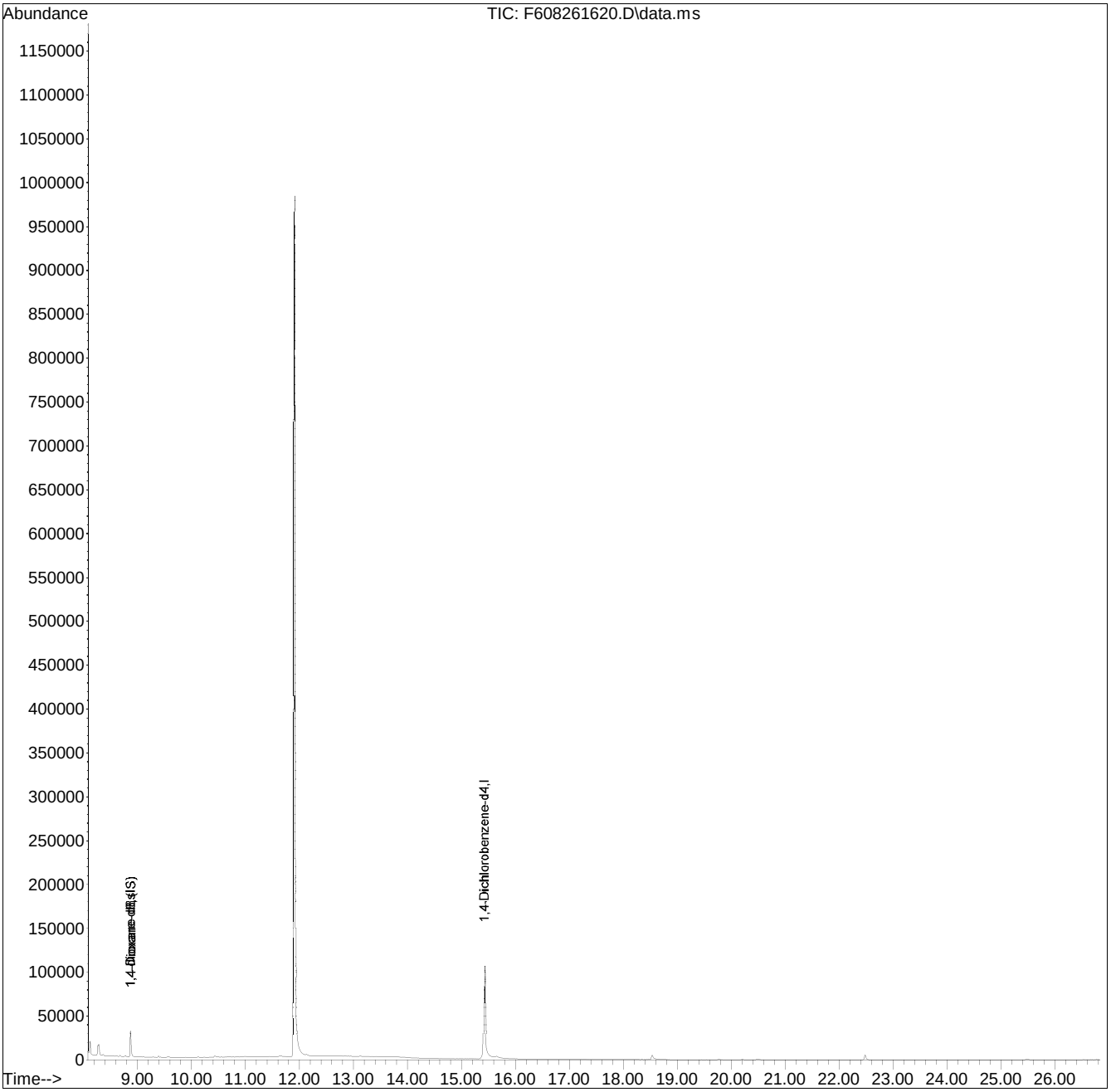
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261620.D
Acq On : 27 Aug 2016 3:34 am
Operator : BNA6:WR
Sample : WG926303-1
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Aug 30 14:03:24 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061630.D
Acq On : 7 Sep 2016 9:18 am
Operator : BNA6:WR
Sample : WG929215-1
Misc : WG929257,WG929215,ICAL12851
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 07 12:13:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:57:18 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

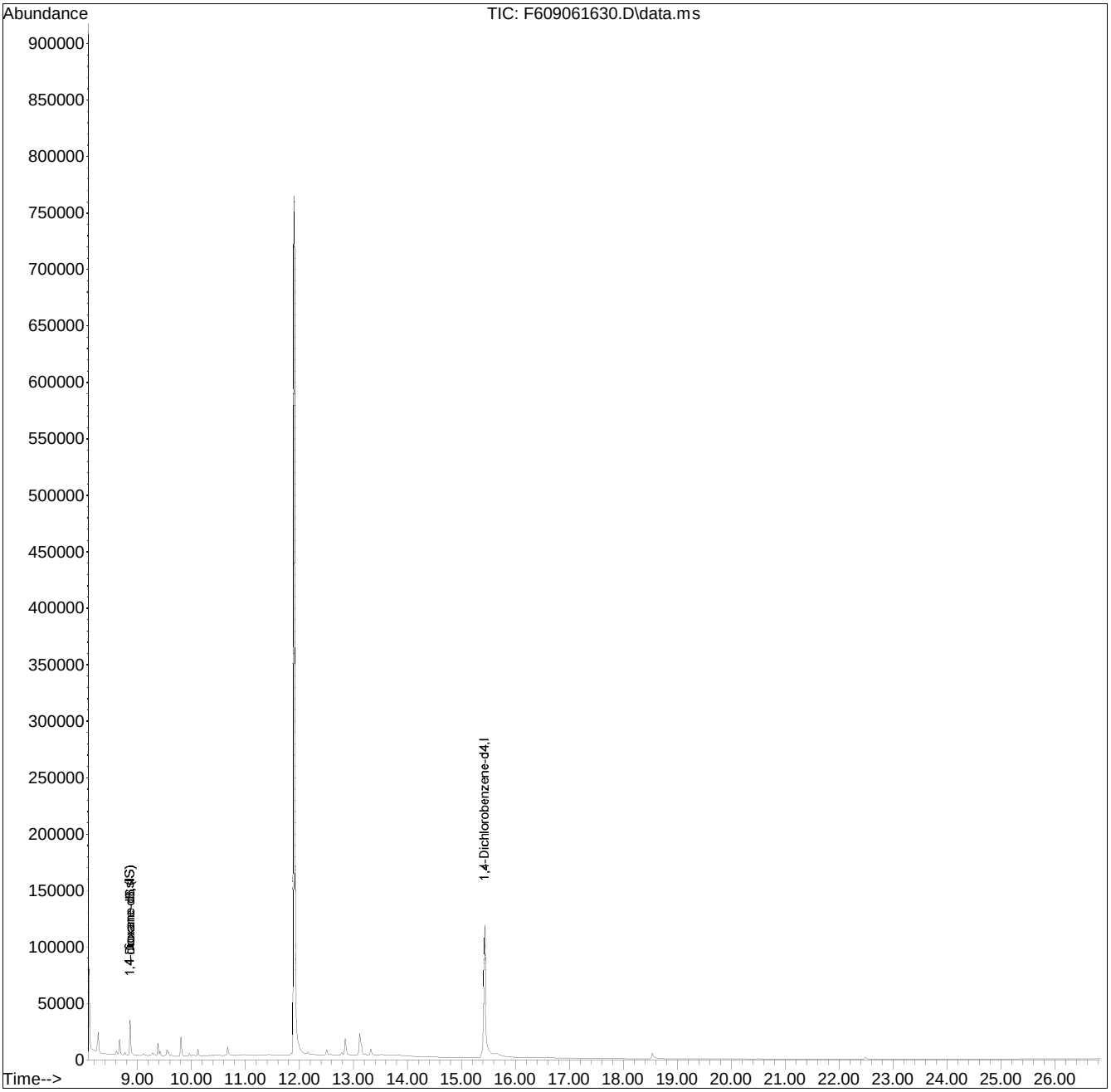
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.861	64	19388	500.000	ng/mL	0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	183204	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.861	64	19388	143.407	ng/mL	0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 28.68%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061630.D
Acq On : 7 Sep 2016 9:18 am
Operator : BNA6:WR
Sample : WG929215-1
Misc : WG929257,WG929215,ICAL12851
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 07 12:13:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:57:18 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261621.D
Acq On : 27 Aug 2016 4:18 am
Operator : BNA6:WR
Sample : WG926303-2
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 29 09:29:26 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

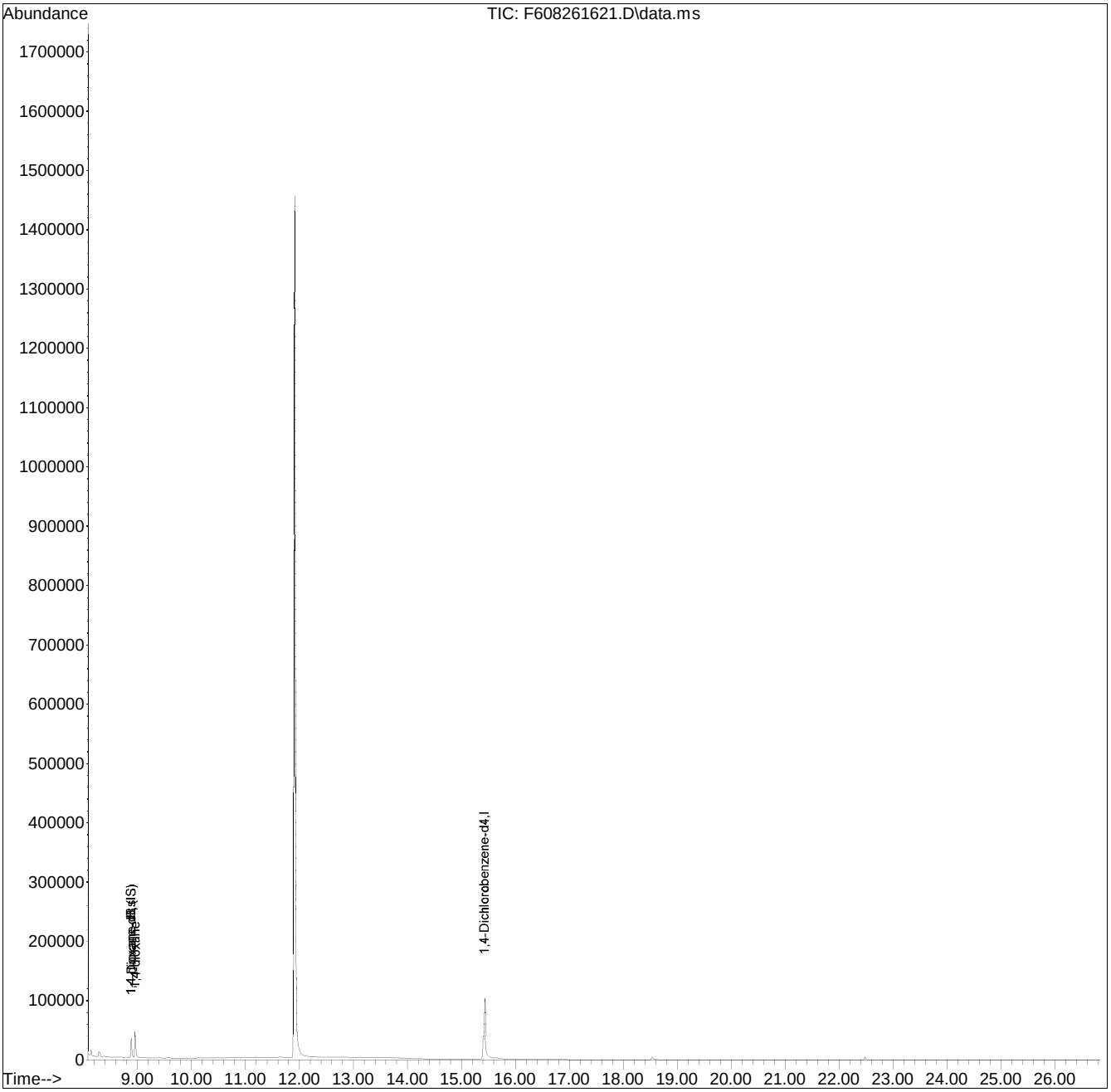
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	18899	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.422	152	154412	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	18899	141.419	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 28.28%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.963	88	29302	540.955	ng/mL	98

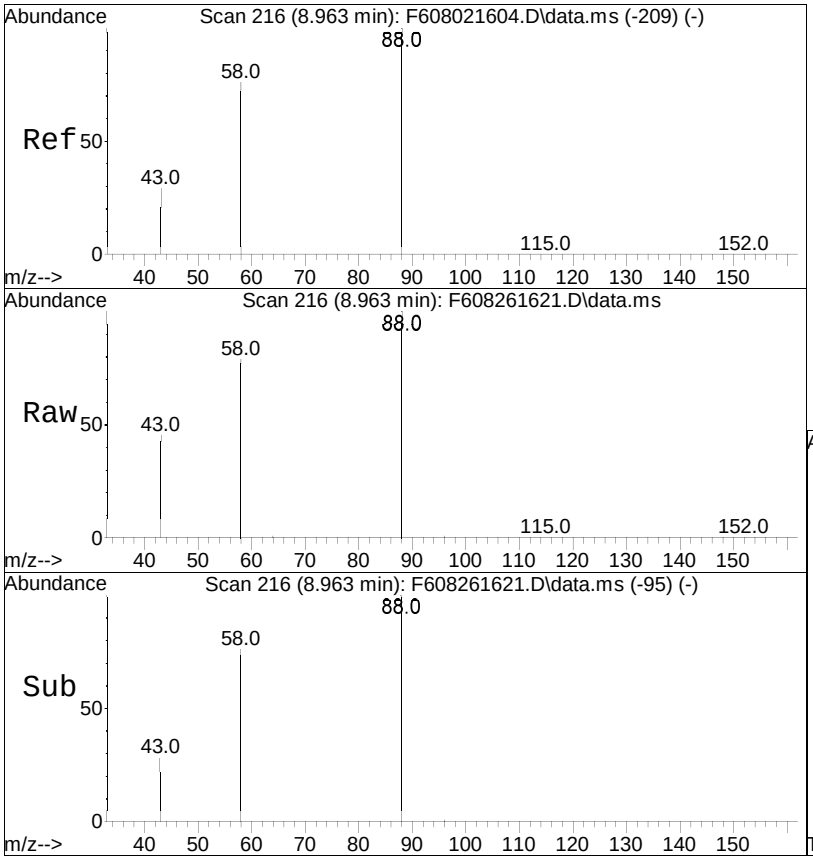
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261621.D
Acq On : 27 Aug 2016 4:18 am
Operator : BNA6:WR
Sample : WG926303-2
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Aug 29 09:29:26 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

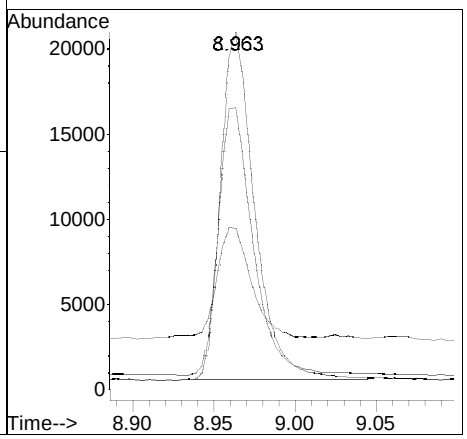




#2
1,4-dioxane
Concen: 540.96 ng/mL
RT: 8.963 min Scan# 216
Delta R.T. -0.008 min
Lab File: F608261621.D
Acq: 27 Aug 2016 4:18 am

Tgt Ion: 88 Resp: 29302

Ion	Ratio	Lower	Upper
88	100		
58	78.7	62.1	93.1
43	33.3	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061631.D
Acq On : 7 Sep 2016 10:02 am
Operator : BNA6:WR
Sample : WG929215-2
Misc : WG929257,WG929215,ICAL12851
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 07 12:12:39 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:57:18 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.886	64	21425	500.000	ng/mL	0.06
3) 1,4-Dichlorobenzene-d4	15.422	152	180495	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.886	64	21425	160.852	ng/mL	0.06
Spiked Amount 500.000	Range 15 - 115		Recovery = 32.17%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.959	88	33591	595.167	ng/mL	98

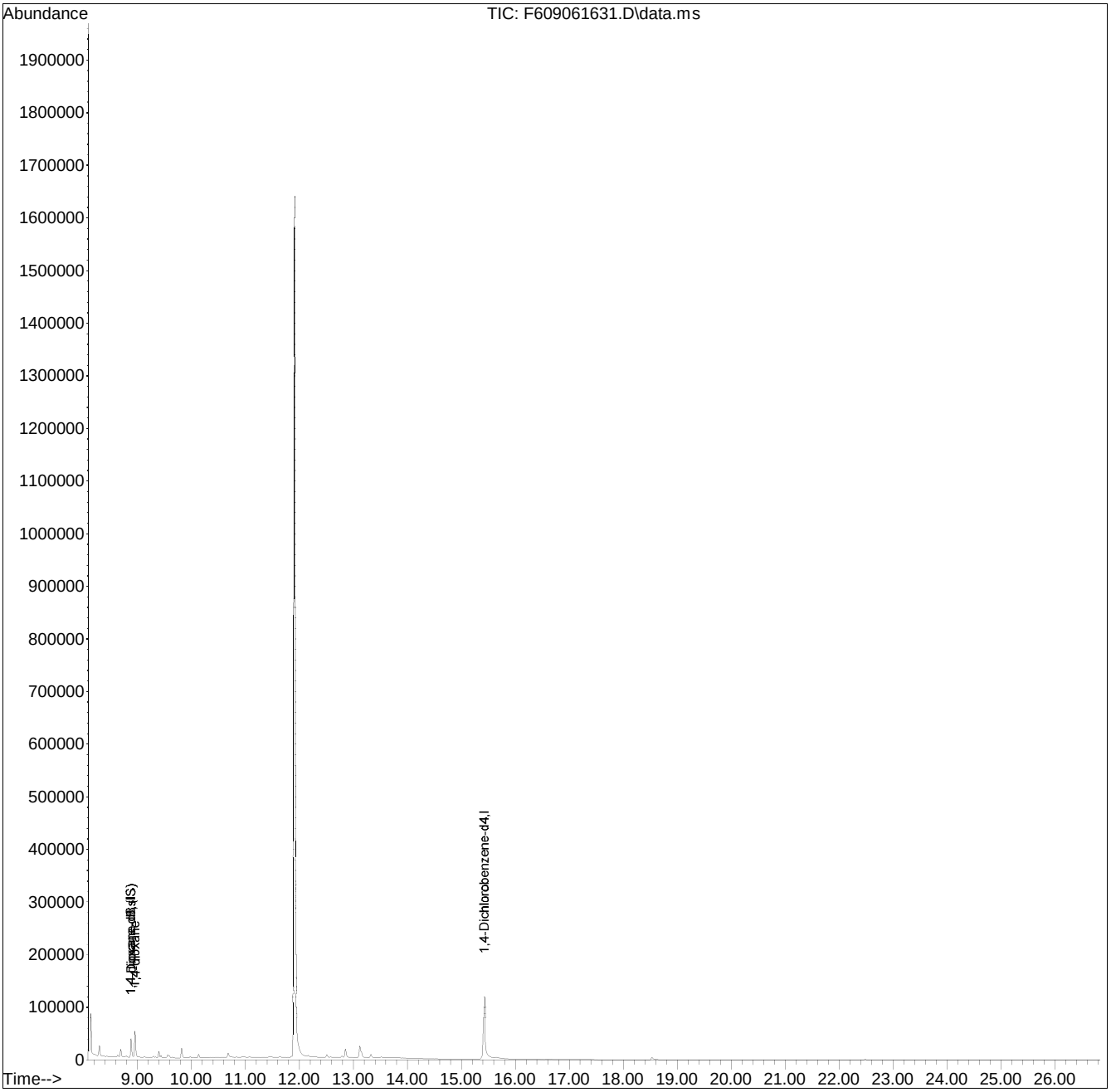
(#) = qualifier out of range (m) = manual integration (+) = signals summed

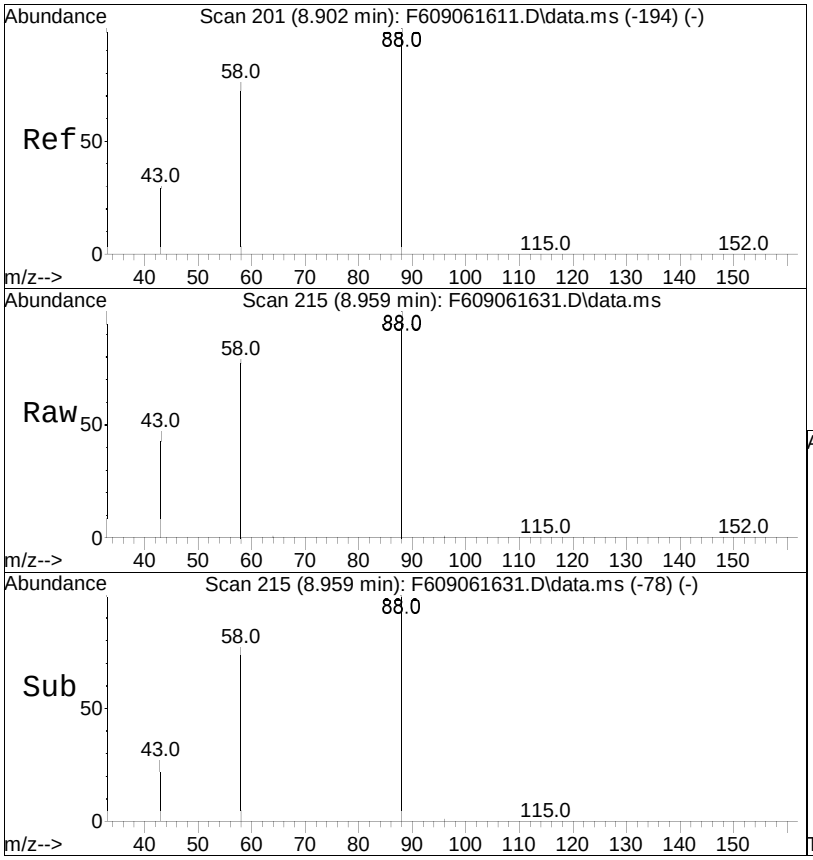
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061631.D
Acq On : 7 Sep 2016 10:02 am
Operator : BNA6:WR
Sample : WG929215-2
Misc : WG929257,WG929215,ICAL12851
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Sep 07 12:12:39 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:57:18 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

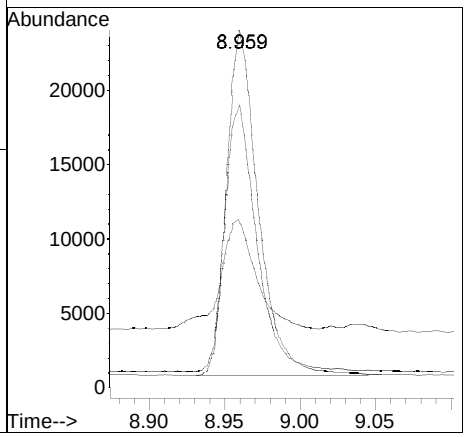




#2
1,4-dioxane
Concen: 595.17 ng/mL
RT: 8.959 min Scan# 215
Delta R.T. 0.057 min
Lab File: F609061631.D
Acq: 7 Sep 2016 10:02 am

Tgt Ion: 88 Resp: 33591

Ion	Ratio	Lower	Upper
88	100		
58	77.4	62.1	93.1
43	33.3	24.4	36.6



LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261622.D
Acq On : 27 Aug 2016 5:01 am
Operator : BNA6:WR
Sample : WG926303-3
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 30 14:04:37 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

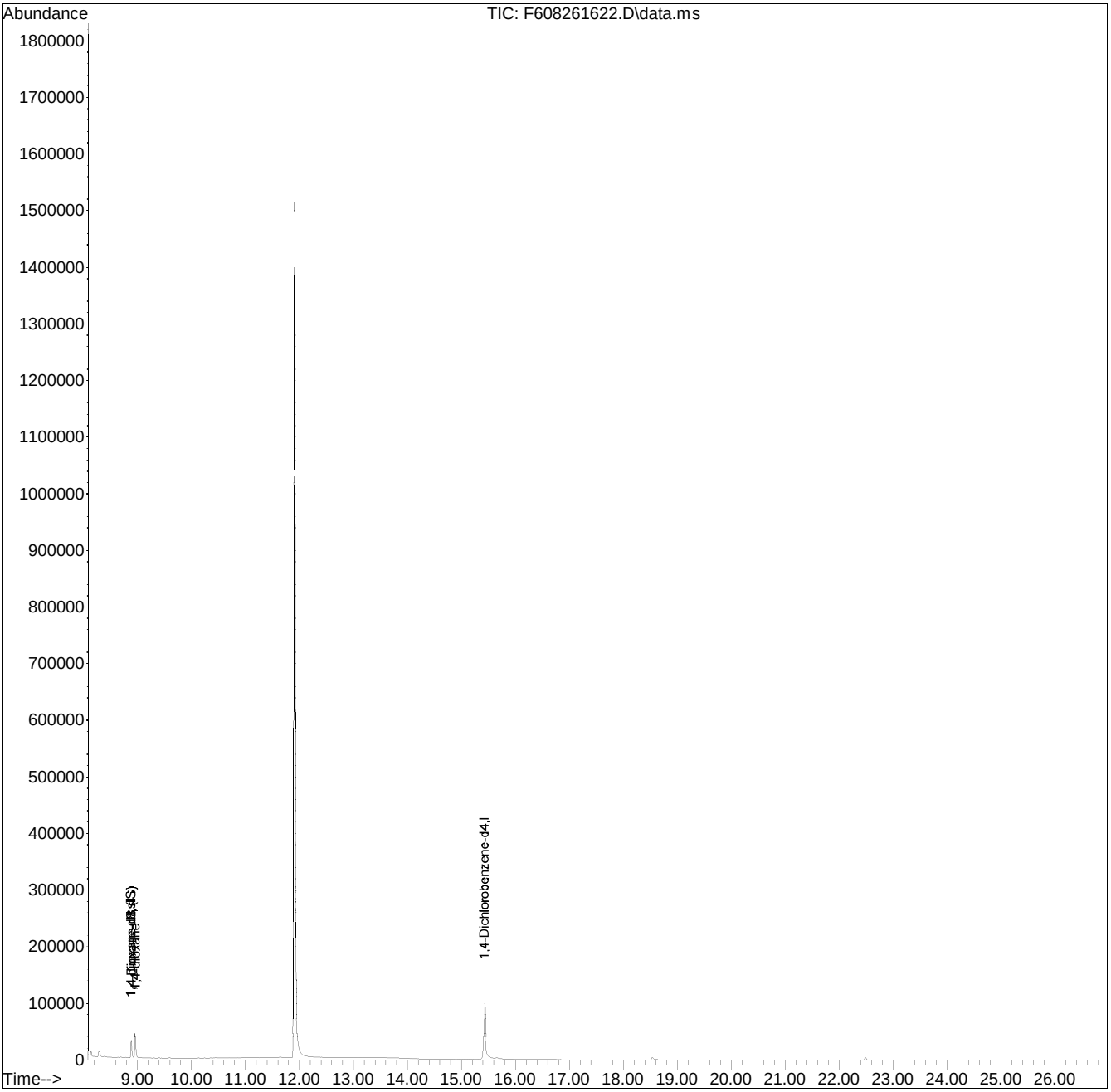
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	17854M4	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.426	152	152722	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	17859M4	135.115	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 27.02%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.963	88	28559	558.098	ng/mL	98

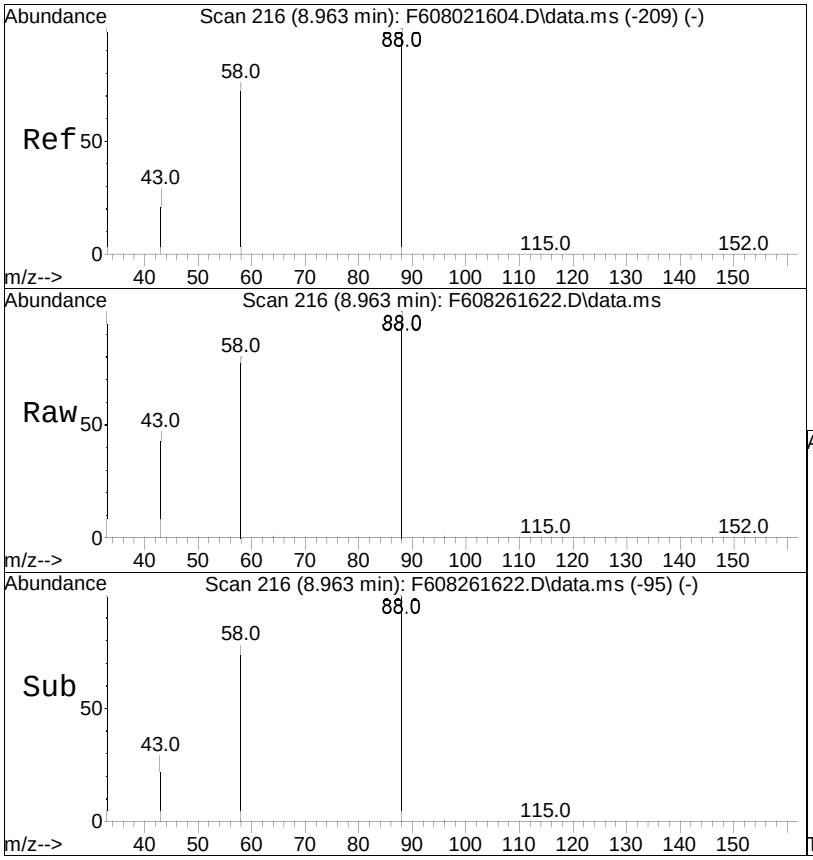
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug26\
Data File : F608261622.D
Acq On : 27 Aug 2016 5:01 am
Operator : BNA6:WR
Sample : WG926303-3
Misc : WG926828,WG926303,ICAL12751
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Aug 30 14:04:37 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug26\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

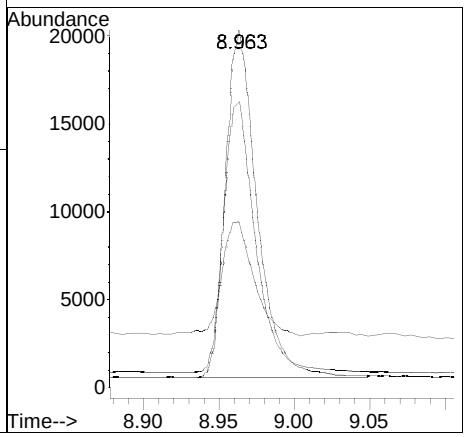




#2
1,4-dioxane
Concen: 558.10 ng/mL
RT: 8.963 min Scan# 216
Delta R.T. -0.008 min
Lab File: F608261622.D
Acq: 27 Aug 2016 5:01 am

Tgt Ion: 88 Resp: 28559

Ion	Ratio	Lower	Upper
88	100		
58	78.3	62.1	93.1
43	32.8	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061632.D
Acq On : 7 Sep 2016 10:46 am
Operator : BNA6:WR
Sample : WG929215-3
Misc : WG929257,WG929215,ICAL12851
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 07 12:12:41 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:57:18 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.886	64	19005	500.000	ng/mL	0.06
3) 1,4-Dichlorobenzene-d4	15.422	152	174318	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.886	64	19005	147.740	ng/mL	0.06
Spiked Amount 500.000	Range 15 - 115		Recovery = 29.55%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.959	88	29916	597.548	ng/mL	98

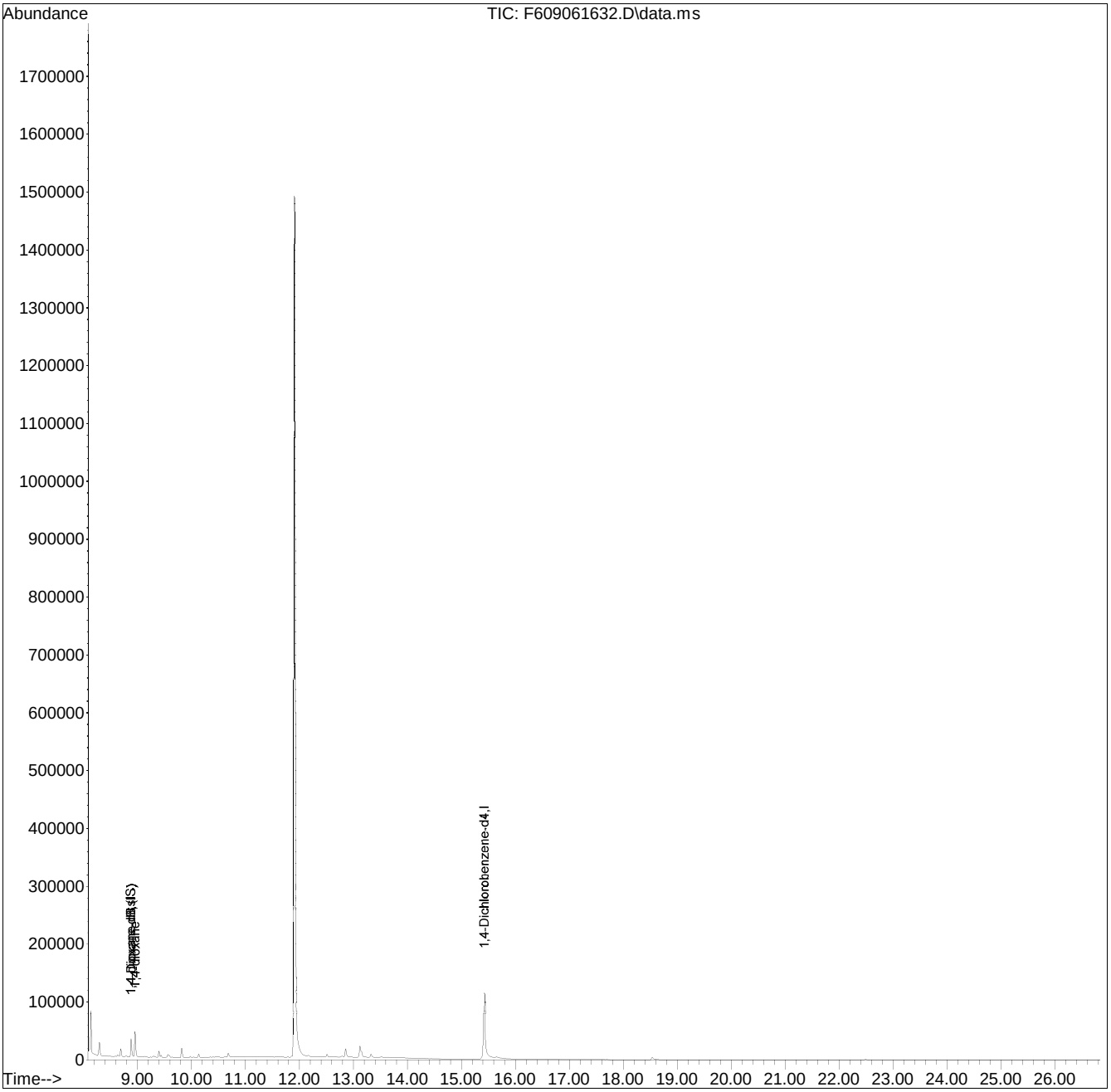
(#) = qualifier out of range (m) = manual integration (+) = signals summed

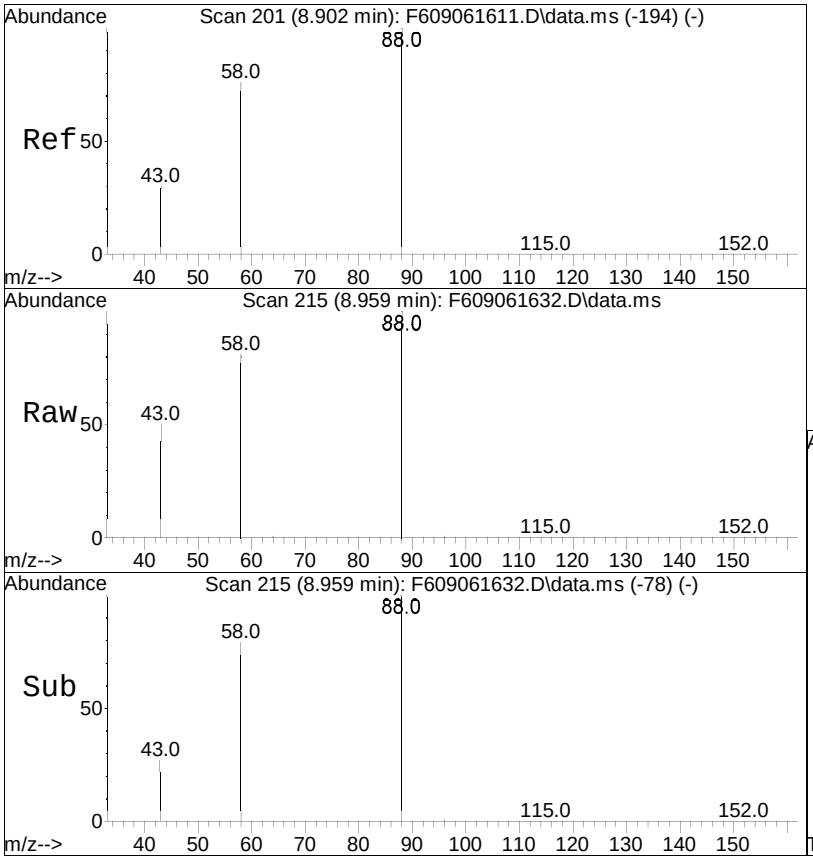
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep06\
Data File : F609061632.D
Acq On : 7 Sep 2016 10:46 am
Operator : BNA6:WR
Sample : WG929215-3
Misc : WG929257,WG929215,ICAL12851
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Sep 07 12:12:41 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep06\14DIOX0906BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Sep 07 11:57:18 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

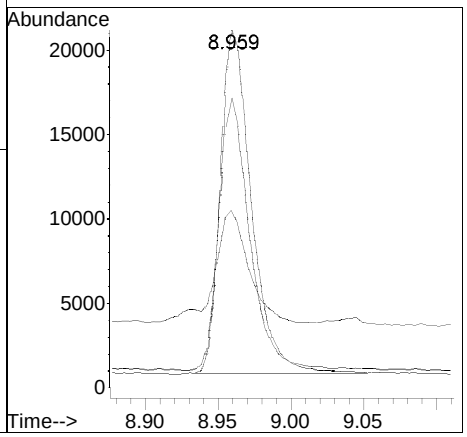




#2
1,4-dioxane
Concen: 597.55 ng/mL
RT: 8.959 min Scan# 215
Delta R.T. 0.057 min
Lab File: F609061632.D
Acq: 7 Sep 2016 10:46 am

Tgt Ion: 88 Resp: 29916

Ion	Ratio	Lower	Upper
88	100		
58	78.2	62.1	93.1
43	32.8	24.4	36.6



Sample Preparation

ORGANIC ELN REPORT

Workgroup: WG929215

Prep Method: EPA 3510C
Solvent Type: DCM **Lot #:** DP875
Surrogate Type: 1,4-DIOXANE **Lot #:** MSAK13
Spike Type: 1,4-DIOXANE **Lot #:** MSAK04
Spike Verify by: AL
Lims Spikelot: 14DIOXANE

Additional Reagents/Stds

Glass Wool	11414001
Na2SO4	0000131774

Conc.Method: S-EVAP
Solvent Type: DCM
Lot #: dp875

Additional Reagents/Stds

Cleanup 1

Cleanup Method 1:
Cleanup Method 2:
Solvent Type: **Lot #:**

Additional Reagents/Stds

Sample/ Type	Extraction: Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Concentration: Conc Date	Analyst	Final Vol ml	Conc Unit
WG929215-1 BLANK	09/06/16 14:15	Daniel Robbins	500	7	.5		09/06/16 15:45	Amanda Luiz	5	SEVAP 5
WG929215-2 LCS	09/06/16 14:15	Daniel Robbins	500	7	.5	.5	09/06/16 15:45	Amanda Luiz	5	SEVAP 5
WG929215-3 LCSD	09/06/16 14:15	Daniel Robbins	500	7	.5	.5	09/06/16 15:45	Amanda Luiz	5	SEVAP 5
L1626610-06 WATER	09/06/16 14:15	Daniel Robbins	490	10	.5		09/06/16 15:45	Amanda Luiz	5	SEVAP 5
	ORIGINAL PH=10. BROUGHT TO PH=7 USING 1:1 H2SO4 LOT OWA041416A DR 9/6/16									
L1627335-01 WATER	09/06/16 14:15	Daniel Robbins	530	8	.5		09/06/16 15:45	Amanda Luiz	5	SEVAP 5

Reported: 28-SEP-16 03:30 PM

ORGANIC ELN REPORT

Workgroup: WG926303

Prep Method: EPA 3510C
Solvent Type: DCM **Lot #:** 00001113719
Surrogate Type: 1,4-DIOXANE **Lot #:** MSAK13
Spike Type: 1,4-DIOXANE **Lot #:** MSAK04
Spike Verify by: DR
Lims Spikelot: 14DIOXANE

Additional Reagents/Stds

Na2SO4	0000131774
H2SO4	OWA041416A
Glass Wool	11414001
NaOH	OWB032316A

Conc.Method: S-EVAP
Solvent Type: DCM
Lot #: 0000113719

Additional Reagents/Stds

Cleanup 1

Cleanup Method 1:
Cleanup Method 2:
Solvent Type: **Lot #:**

Additional Reagents/Stds

Sample/ Type	Extraction: Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Concentration: Conc Date	Analyst	Final Vol ml	Conc Unit
WG926303-1 BLANK	08/26/16 12:45	Alyssa Sass	500	7	.5		08/26/16 15:00	Amanda Luiz	5	SEVAP 1A
	QC'S SHARED WITH WG926302 08/26/16 ABS									
WG926303-2 LCS	08/26/16 12:45	Alyssa Sass	500	7	.5	.5	08/26/16 15:00	Amanda Luiz	5	SEVAP 1A
WG926303-3 LCSD	08/26/16 12:45	Alyssa Sass	500	7	.5	.5	08/26/16 15:00	Amanda Luiz	5	SEVAP 1A
L1626610-01 WATER	08/26/16 12:45	Alyssa Sass	450	13	.5		08/26/16 15:00	Amanda Luiz	5	SEVAP 1A
	INITIAL PH OF 13 MADE NEUTRAL TO A PH OF 6 WITH H2SO4 OWA041416 AND NAOH OWB032316A 08/26/16 ABS									
L1626610-02 WATER	08/26/16 12:45	Alyssa Sass	510	7	.5		08/26/16 15:00	Amanda Luiz	5	SEVAP 1A
L1626610-03 WATER	08/26/16 12:45	Alyssa Sass	510	8	.5		08/26/16 15:00	Amanda Luiz	5	SEVAP 1A

Reported: 28-SEP-16 03:30 PM

ORGANIC ELN REPORT

Workgroup: WG926303

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol **ml**	Ph	Surr Amt **ml**	Spike Amt **ml**	Conc Date	Analyst	Final Vol **ml**	Conc Unit
L1626610-04 WATER	08/26/16 12:45	Alyssa Sass	500	7	.5		08/26/16 15:00	Amanda Luiz	5	SEVAP 1A
L1626610-05 WATER	08/26/16 12:45	Alyssa Sass	510	7	.5		08/26/16 15:00	Amanda Luiz	5	SEVAP 1A
L1626610-06	08/26/16 12:45	Alyssa Sass	510	7	.5		08/26/16 15:00	Amanda Luiz	5	SEVAP 1A
L1626610-07 WATER	08/26/16 12:45	Alyssa Sass	450	10	.5		08/26/16 15:00	Amanda Luiz	5	SEVAP 1A

INITIAL PH OF 10 MADE NEUTRAL TO A PH OF 6 WITH H2SO4 OWA041416 08/26/16 ABS

Reported: 28-SEP-16 03:30 PM

Alpha Report

ANALYTICAL REPORT

Lab Number:	L1626610
Client:	Cornerstone/Cadena Co. joint account 1099 Highland Drive, Suite E Ann Arbor, MI 48108
ATTN:	Jim Tomalia
Phone:	() -
Project Name:	FORD-RINGWOOD
Project Number:	140802-015
Report Date:	09/29/16

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626610
Report Date: 09/29/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1626610-01	RW-11D (262-267)-082316	WATER	RINGWOOD, NJ	08/23/16 09:05	08/24/16
L1626610-02	PMP-AS-180-082316	WATER	RINGWOOD, NJ	08/23/16 10:25	08/24/16
L1626610-03	PMP-AS-50-082316	WATER	RINGWOOD, NJ	08/23/16 09:10	08/24/16
L1626610-04	PMP-AS-230-082316	WATER	RINGWOOD, NJ	08/23/16 13:25	08/24/16
L1626610-05	RW-11S (236-244)-082316	WATER	RINGWOOD, NJ	08/23/16 12:15	08/24/16
L1626610-06	RW-3DD (125-180)-082316	WATER	RINGWOOD, NJ	08/23/16 13:25	08/24/16
L1626610-07	RW-3DS (155-160)-082316	WATER	RINGWOOD, NJ	08/23/16 15:00	08/24/16

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626610
Report Date: 09/29/16

NJ DEP Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	YES
1a	Were the method specified handling, preservation, and holding time requirements met?	NO
1b	EPH Method: Was the EPH Method conducted without significant modifications (see Section 11.3 of respective DKQ methods)?	N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	YES
3	Were all samples received at an appropriate temperature (4 ± 2° C)?	YES
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	YES
5a	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	NO
5b	Were these reporting limits met?	N/A
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	NO
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	NO

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1a or #1b is "No", the data package does not meet the requirements for "Data of Known Quality".

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626610
Report Date: 09/29/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORD-RINGWOOD **Lab Number:** L1626610
Project Number: 140802-015 **Report Date:** 09/29/16

Case Narrative (continued)

Report Submission

This report replaces the re-issued report from September 7, 2016. Both the initial and re-extraction results for sample L1626610-06 have been included.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

DKQP Related Narratives

Report Submission

In reference to question 1a:

Sample L1626610-06 was re-extracted and reported eight days beyond the hold time.

In reference to question 5a/b:

Reporting limits were not specified.

In reference to question 6:

At the client's request, all submitted samples were not analyzed for the full DKQP list of constituents identified in the method specific analyte list presented in the DKQP documents.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth Porta

Title: Technical Director/Representative Date: 09/29/16

ORGANICS

SEMIVOLATILES

Project Name: FORD-RINGWOOD
Lab Number: L1626610
Project Number: 140802-015
Report Date: 09/29/16

SAMPLE RESULTS

Lab ID: L1626610-01
Client ID: RW-11D (262-267)-082316
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/27/16 16:52
Analyst: WR

Date Collected: 08/23/16 09:05
Date Received: 08/24/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 12:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	73.4		ug/l	0.167	0.0833	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1626610
Report Date: 09/29/16

SAMPLE RESULTS

Lab ID: L1626610-02
Client ID: PMP-AS-180-082316
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/27/16 17:36
Analyst: WR

Date Collected: 08/23/16 10:25
Date Received: 08/24/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 12:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	20.3		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	20		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1626610
Report Date: 09/29/16

SAMPLE RESULTS

Lab ID: L1626610-03
Client ID: PMP-AS-50-082316
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/27/16 18:20
Analyst: WR

Date Collected: 08/23/16 09:10
Date Received: 08/24/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 12:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	20		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626610
Project Number: 140802-015
Report Date: 09/29/16

SAMPLE RESULTS

Lab ID: L1626610-04
Client ID: PMP-AS-230-082316
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/27/16 20:40
Analyst: WR

Date Collected: 08/23/16 13:25
Date Received: 08/24/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 12:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	146.		ug/l	0.150	0.0750	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	22		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626610
Project Number: 140802-015
Report Date: 09/29/16

SAMPLE RESULTS

Lab ID:	L1626610-05	Date Collected:	08/23/16 12:15
Client ID:	RW-11S (236-244)-082316	Date Received:	08/24/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/26/16 12:45
Analytical Date:	08/27/16 21:24		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	1.08		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626610
Project Number: 140802-015
Report Date: 09/29/16

SAMPLE RESULTS

Lab ID: L1626610-06
Client ID: RW-3DD (125-180)-082316
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/27/16 22:07
Analyst: WR

Date Collected: 08/23/16 13:25
Date Received: 08/24/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 12:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	152.		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	19		15-110

Project Name: FORD-RINGWOOD **Lab Number:** L1626610

Project Number: 140802-015 **Report Date:** 09/29/16

SAMPLE RESULTS

Lab ID:	L1626610-06 RE	Date Collected:	08/23/16 13:25
Client ID:	RW-3DD (125-180)-082316	Date Received:	08/24/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	09/06/16 14:15
Analytical Date:	09/07/16 12:15		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	29.2		ug/l	0.153	0.0765	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626610
Project Number: 140802-015
Report Date: 09/29/16

SAMPLE RESULTS

Lab ID: L1626610-07
Client ID: RW-3DS (155-160)-082316
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/27/16 22:51
Analyst: WR

Date Collected: 08/23/16 15:00
Date Received: 08/24/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/26/16 12:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	25.1		ug/l	0.167	0.0833	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	22		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626610
Report Date: 09/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 08/27/16 03:34
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 08/26/16 12:45

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01-07 Batch: WG926303-1					
1,4-Dioxane	ND		ug/l	0.150	0.0750

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	26		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626610
Report Date: 09/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 09/07/16 09:18
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 09/06/16 14:15

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 06 Batch: WG929215-1					
1,4-Dioxane	ND		ug/l	0.150	0.0750

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	29		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORD-RINGWOOD

Project Number: 140802-015

Lab Number: L1626610

Report Date: 09/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab	Associated sample(s): 01-07		Batch: WG926303-2		WG926303-3			
1,4-Dioxane	108		112		40-140	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	28		27		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORD-RINGWOOD

Project Number: 140802-015

Lab Number: L1626610

Report Date: 09/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 06 Batch: WG929215-2 WG929215-3								
1,4-Dioxane	119		120		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	32		30		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626610
Report Date: 09/29/16

Sample Receipt and Container Information

Were project specific reporting limits specified? NO

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1626610-01A	Amber 500ml unpreserved	A	7	3.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626610-01B	Amber 500ml unpreserved	A	7	3.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626610-02A	Amber 500ml unpreserved	A	7	3.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626610-02B	Amber 500ml unpreserved	A	7	3.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626610-03A	Amber 500ml unpreserved	A	7	3.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626610-03B	Amber 500ml unpreserved	A	7	3.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626610-04A	Amber 500ml unpreserved	A	7	3.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626610-04B	Amber 500ml unpreserved	A	7	3.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626610-05A	Amber 500ml unpreserved	A	7	3.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626610-05B	Amber 500ml unpreserved	A	7	3.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626610-06A	Amber 500ml unpreserved	A	7	3.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626610-06B	Amber 500ml unpreserved	A	7	3.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626610-07A	Amber 500ml unpreserved	A	7	3.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626610-07B	Amber 500ml unpreserved	A	7	3.7	Y	Absent	A2-14-DIOXANESIM-PPB(7)

*Values in parentheses indicate holding time in days

Project Name:	FORD-RINGWOOD	**Lab Number:**	L1626610
Project Number:	140802-015	**Report Date:**	09/29/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: DU Report with 'J' Qualifiers

Project Name: FORD-RINGWOOD **Lab Number:** L1626610

Project Number: 140802-015 **Report Date:** 09/29/16

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1626610
Report Date: 09/29/16

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: ***EPA 3050B***

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL
Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 8/25/16

ALPHA Job #: L1626610

Client Information

Client: Comstar Env. Group
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information

Project Name: Ford - Ringwood
Project Location: Ringwood, NJ
Project #: 140802-015
(Use Project name as Project #) ☐
Project Manager: Tim Cooper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information

☐ Same as Client Info
PO #

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

1,4 Dioxane SIM - PPB

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	1,4 Dioxane SIM - PPB	Sample Specific Comments
26600-01	RW-11D(262-267)-082316	8/23/16	09:05	GW	[illegible]	✓	
-02	PMP-AS-180-082316	8/23/16	10:25	GW	[illegible]	✓	
-03	PMP-AS-50-082316	8/23/16	09:10	GW	[illegible]	✓	
-04	PMP-AS-230-082316	8/23/16	13:25	GW	[illegible]	✓	
-05	RW-11S(236-241)-082316	8/23/16	12:15	GW	[illegible]	✓	
-06	RW-3DD(175-180)-082316	8/23/16	13:25	GW	[illegible]	✓	
-07	RW-3DS(155-160)-082316	8/23/16	15:00	GW	[illegible]	✓	

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
F = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	A
Preservative	A

Relinquished By:	Date/Time	Received By:	Date/Time
[illegible]	8/24/16 07:20	BOBaler APC	8-24-16 7:38
BOBaler	8-24-16 1810	Tom Tobin	8-24-16 1810
Tom Tobin	8-25-16 0135	[illegible]	8/25/16 00:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONSTITUTIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Alpha
Summary Forms

Organic Summary Forms

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626610-01	**Date Collected**	: 08/23/16 09:05
Client ID	: RW-11D (262-267)-082316	**Date Received**	: 08/24/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/27/16 16:52
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608261638	**Analyst**	: WR
Sample Amount	: 450 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	73.4	0.167	0.0833	

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626610-02	**Date Collected**	: 08/23/16 10:25
Client ID	: PMP-AS-180-082316	**Date Received**	: 08/24/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/27/16 17:36
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608261639	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	20.3	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626610-03	**Date Collected**	: 08/23/16 09:10
Client ID	: PMP-AS-50-082316	**Date Received**	: 08/24/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/27/16 18:20
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608261640	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.147	0.0735	U

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626610-04	**Date Collected**	: 08/23/16 13:25
Client ID	: PMP-AS-230-082316	**Date Received**	: 08/24/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/27/16 20:40
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608261643	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	146.	0.150	0.0750	

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626610-05	**Date Collected**	: 08/23/16 12:15
Client ID	: RW-11S (236-244)-082316	**Date Received**	: 08/24/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/27/16 21:24
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608261644	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	1.08	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626610-06	**Date Collected**	: 08/23/16 13:25
Client ID	: RW-3DD (125-180)-082316	**Date Received**	: 08/24/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/27/16 22:07
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608261645	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	152.	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626610-06RE	**Date Collected**	: 08/23/16 13:25
Client ID	: RW-3DD (125-180)-082316	**Date Received**	: 08/24/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 09/07/16 12:15
Sample Matrix	: WATER	**Date Extracted**	: 09/06/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F609061634	**Analyst**	: WR
Sample Amount	: 490 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	29.2	0.153	0.0765	

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626610-07	**Date Collected**	: 08/23/16 15:00
Client ID	: RW-3DS (155-160)-082316	**Date Received**	: 08/24/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/27/16 22:51
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608261646	**Analyst**	: WR
Sample Amount	: 450 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	25.1	0.167	0.0833	

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: WG926303-1	**Date Collected**	: NA
Client ID	: WG926303-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/27/16 03:34
Sample Matrix	: WATER	**Date Extracted**	: 08/26/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608261620	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 1
SemiVolatile Organics

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: WG929215-1	**Date Collected**	: NA
Client ID	: WG929215-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 09/07/16 09:18
Sample Matrix	: WATER	**Date Extracted**	: 09/06/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F609061630	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 2
Surrogate Recovery
SEMIVOLATILES

Client: Cornerstone/Cadena Co. joint account
Project Name: FORD-RINGWOOD

Lab Number: L1626610
Project Number: 140802-015
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 ()	S2 ()	S3 ()	S4 ()	S5 ()	S6 ()	TOT OUT
WG929215-3LCSD	30	--	--	--	--	--	0
WG929215-2LCS	32	--	--	--	--	--	0
WG929215-1BLANK	29	--	--	--	--	--	0
RW-3DD (125-180)-082316 (L1626610-06RE)	24	--	--	--	--	--	0
WG926303-3LCSD	27	--	--	--	--	--	0
WG926303-2LCS	28	--	--	--	--	--	0
WG926303-1BLANK	26	--	--	--	--	--	0
PMP-AS-180-082316 (L1626610-02)	20	--	--	--	--	--	0
PMP-AS-230-082316 (L1626610-04)	22	--	--	--	--	--	0
PMP-AS-50-082316 (L1626610-03)	20	--	--	--	--	--	0
RW-11D (262-267)-082316 (L1626610-01)	25	--	--	--	--	--	0
RW-11S (236-244)-082316 (L1626610-05)	24	--	--	--	--	--	0
RW-3DD (125-180)-082316 (L1626610-06)	19	--	--	--	--	--	0
RW-3DS (155-160)-082316 (L1626610-07)	22	--	--	--	--	--	0

	QC LIMITS
S1 = 1,4-DIOXANE-D8	(15-110)

*** Values outside of QC limits**

FORM II A2-14-DIOXANESIM-PPB

Laboratory Control Sample
Form 3

Client	: Cornerstone/Cadena Co. joint accoun		**Lab Number**	: L1626610	
Project Name	: FORD-RINGWOOD		**Project Number**	: 140802-015	
Matrix	: WATER				
LCS Sample ID	: WG926303-2	**Analysis Date :** 08/27/16 04:18	**File ID**	: F608261621	
LCSD Sample ID	: WG926303-3	**Analysis Date :** 08/27/16 05:01	**File ID**	: F608261622	

	Laboratory Control Sample			Laboratory Control Duplicate					
	True	Found	%R	True	Found	%R	RPD	Recovery	RPD
Parameter	(ug/l)	(ug/l)		(ug/l)	(ug/l)			Limits	Limit
1,4-Dioxane	5	5.41	108	5	5.58	112	4	40-140	30

Laboratory Control Sample
Form 3

Client	: Cornerstone/Cadena Co. joint accoun		**Lab Number**	: L1626610	
Project Name	: FORD-RINGWOOD		**Project Number**	: 140802-015	
Matrix	: WATER				
LCS Sample ID	: WG929215-2	**Analysis Date :** 09/07/16 10:02	**File ID**	: F609061631	
LCSD Sample ID	: WG929215-3	**Analysis Date :** 09/07/16 10:46	**File ID**	: F609061632	

	Laboratory Control Sample			Laboratory Control Duplicate					
	True	Found	%R	True	Found	%R	RPD	Recovery	RPD
Parameter	(ug/l)	(ug/l)		(ug/l)	(ug/l)			Limits	Limit
1,4-Dioxane	5	5.95	119	5	5.98	120	1	40-140	30

Method Blank Summary
Form 4

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab Sample ID	: WG926303-1	**Lab File ID**	: F608261620
Instrument ID	: BNA6	**Extraction Date**	: 08/26/16
Matrix	: WATER	**Analysis Date**	: 08/27/16 03:34
Level	: LOW		

Client Sample No.	Lab Sample ID	Analysis Date
WG926303-2LCS	WG926303-2	08/27/16 04:18
WG926303-3LCSD	WG926303-3	08/27/16 05:01
RW-11D (262-267)-082316	L1626610-01	08/27/16 16:52
PMP-AS-180-082316	L1626610-02	08/27/16 17:36
PMP-AS-50-082316	L1626610-03	08/27/16 18:20
PMP-AS-230-082316	L1626610-04	08/27/16 20:40
RW-11S (236-244)-082316	L1626610-05	08/27/16 21:24
RW-3DD (125-180)-082316	L1626610-06	08/27/16 22:07
RW-3DS (155-160)-082316	L1626610-07	08/27/16 22:51

Method Blank Summary
Form 4

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab Sample ID	: WG929215-1	**Lab File ID**	: F609061630
Instrument ID	: BNA6	**Extraction Date**	: 09/06/16
Matrix	: WATER	**Analysis Date**	: 09/07/16 09:18
Level	: LOW		

Client Sample No.	Lab Sample ID	Analysis Date
WG929215-2LCS	WG929215-2	09/07/16 10:02
WG929215-3LCSD	WG929215-3	09/07/16 10:46
RW-3DD (125-180)-082316	L1626610-06RE	09/07/16 12:15

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 09/06/16 11:33
Tune Standard	: R898043-7	**Tune File ID**	: F609061601_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	25.8
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	37.3
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.9
275	10.0 - 60.0% of Base Peak	28.4
365	Greater than 1.0% of mass 198	2.6
441	Present, but less than 24% of mass 442	15.5
442	Base Peak, or >50% of mass 198	92.7
443	15.0 - 24.0% of mass 442	17.7 (19.1)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD10	R898043-1	F609061602	09/06/16 12:28
STD50	R898043-3	F609061603	09/06/16 13:12
STD100	R898043-4	F609061604	09/06/16 13:56
STD500	R898043-5	F609061605	09/06/16 14:40
STD1000	R898043-2	F609061606	09/06/16 15:24
STD5000	R898043-6	F609061607	09/06/16 16:08
STD10000	R898043-9	F609061608	09/06/16 16:52
ICV QUANT REPORT STD1000	R898043-8	F609061609	09/06/16 17:37

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 09/07/16 04:42
Tune Standard	: WG929257-4	**Tune File ID**	: F609061624_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	28.6
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	38.7
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.9
275	10.0 - 60.0% of Base Peak	26.7
365	Greater than 1.0% of mass 198	2.5
441	Present, but less than 24% of mass 442	16
442	Base Peak, or >50% of mass 198	74.6
443	15.0 - 24.0% of mass 442	14.9 (20)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG929257-6CCAL	WG929257-6	F609061625	09/07/16 05:38
WG929215-1BLANK	WG929215-1	F609061630	09/07/16 09:18
WG929215-2LCS	WG929215-2	F609061631	09/07/16 10:02
WG929215-3LCSD	WG929215-3	F609061632	09/07/16 10:46
RW-3DD (125-180)-082316	L1626610-06RE	F609061634	09/07/16 12:15

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/10/16 13:25
Tune Standard	: R891220-9	**Tune File ID**	: F608101603_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	28.1
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	38.3
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.8
275	10.0 - 60.0% of Base Peak	28.4
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	15.6
442	Base Peak, or >50% of mass 198	94.3
443	15.0 - 24.0% of mass 442	18.3 (19.4)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD 10	R891220-2	F608101604	08/10/16 14:22
STD 50	R891220-3	F608101605	08/10/16 15:07
STD 100	R891220-4	F608101606	08/10/16 15:51
STD 500	R891220-5	F608101607	08/10/16 16:36
STD 1000	R891220-1	F608101608	08/10/16 17:21
STD 5000	R891220-6	F608101609	08/10/16 18:06
STD 10000	R891220-7	F608101610	08/10/16 18:51
ICV Quant Report STD 1000	R891220-8	F608101611	08/10/16 19:36

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/26/16 22:14
Tune Standard	: WG926828-1	**Tune File ID**	: F608261613_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	28
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.1 (.5)1
127	10.0 - 80.0% of Base Peak	37.2
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	7.1
275	10.0 - 60.0% of Base Peak	27.6
365	Greater than 1.0% of mass 198	2.6
441	Present, but less than 24% of mass 442	15.1
442	Base Peak, or >50% of mass 198	84.9
443	15.0 - 24.0% of mass 442	16.6 (19.5)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG926828-3CCAL	WG926828-3	F608261614	08/26/16 23:10
WG926303-1BLANK	WG926303-1	F608261620	08/27/16 03:34
WG926303-2LCS	WG926303-2	F608261621	08/27/16 04:18
WG926303-3LCSD	WG926303-3	F608261622	08/27/16 05:01

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/27/16 08:36
Tune Standard	: WG926828-4	**Tune File ID**	: F608261627_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	27.6
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	38.4
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.9
275	10.0 - 60.0% of Base Peak	28.2
365	Greater than 1.0% of mass 198	2.7
441	Present, but less than 24% of mass 442	15.6
442	Base Peak, or >50% of mass 198	96.5
443	15.0 - 24.0% of mass 442	18.9 (19.6)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG926828-6CCAL	WG926828-6	F608261628	08/27/16 09:31
RW-11D (262-267)-082316	L1626610-01	F608261638	08/27/16 16:52
PMP-AS-180-082316	L1626610-02	F608261639	08/27/16 17:36
PMP-AS-50-082316	L1626610-03	F608261640	08/27/16 18:20

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/27/16 19:01
Tune Standard	: WG926828-7	**Tune File ID**	: F608261641_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	32.2
68	Less than 2.0% of mass 69	0 (0)1
69		30.8
70	Less than 2.0% of mass 69	0.2 (.5)1
127	10.0 - 80.0% of Base Peak	44.9
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	7
275	10.0 - 60.0% of Base Peak	23.2
365	Greater than 1.0% of mass 198	2.2
441	Present, but less than 24% of mass 442	75.9
442	Base Peak, or >50% of mass 198	56.8
443	15.0 - 24.0% of mass 442	11.8 (20.7)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG926828-9CCAL	WG926828-9	F608261642	08/27/16 19:56
PMP-AS-230-082316	L1626610-04	F608261643	08/27/16 20:40
RW-11S (236-244)-082316	L1626610-05	F608261644	08/27/16 21:24
RW-3DD (125-180)-082316	L1626610-06	F608261645	08/27/16 22:07
RW-3DS (155-160)-082316	L1626610-07	F608261646	08/27/16 22:51

Initial Calibration Summary
Form 6

Client	**: Cornerstone/Cadena Co. joint accoun**	**Lab Number**	**: L1626610**
Project Name	**: FORD-RINGWOOD**	**Project Number**	**: 140802-015**
Instrument ID	**: BNA6**	**Ical Ref**	**: ICAL12751**
Calibration dates	**: 08/10/16 14:22 08/10/16 18:51**		

Calibration Files
10 =F608101604.D 50 =F608101605.D 100 =F608101606.D 500 =F608101607.D 1000=F608101608.D
5000=F608101609.D 1e4 =F608101610.D

	Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)	1,4-Dioxane-d8 (IS)	----------ISTD----------								
2)	1,4-dioxane	1.556	1.402	1.394	1.386	1.470	1.417	1.405	1.433	4.24
3) I	1,4-Dichlorobenzene-d4	----------ISTD----------								
4) s	1,4-dioxane-d8	0.428	0.444	0.423	0.441	0.417	0.442	0.435	0.433	2.41

Initial Calibration Summary
Form 6

Client	**: Cornerstone/Cadena Co. joint accoun**	**Lab Number**	**: L1626610**
Project Name	**: FORD-RINGWOOD**	**Project Number**	**: 140802-015**
Instrument ID	**: BNA6**	**Ical Ref**	**: ICAL12851**
Calibration dates	**: 09/06/16 12:28 09/06/16 16:52**		

Calibration Files
10 =F609061602.D 50 =F609061603.D 100 =F609061604.D 500 =F609061605.D 1000=F609061606.D
5000=F609061607.D 1e4 =F609061608.D

		Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)		1,4-Dioxane-d8 (IS)	----------ISTD----------								
2)		1,4-dioxane	1.336	1.277	1.306	1.290	1.366	1.328	1.317	1.317	2.28
3)	I	1,4-Dichlorobenzene-d4	----------ISTD----------								
4)	s	1,4-dioxane-d8	0.346	0.363	0.371	0.372	0.369	0.367	0.394	0.369	3.87

Continuing Calibration
Form 7

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610	
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015	
Instrument ID	: BNA6	**Calibration Date**	: 08/26/16 23:10	
Lab File ID	: F608261614	**Init. Calib. Date(s)**	: 08/10/16	08/10/16
Sample No	: WG926828-3	**Init. Calib. Times**	: 14:22	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	85	-.07
1,4-dioxane	1.433	1.37	-	4.4	20	79	-.07
1,4-Dichlorobenzene-d4	1	1	-	0	20	85	-.08
1,4-dioxane-d8	0.433	0.418	-	3.5	20	84	-.07

* Value outside of QC limits.

Continuing Calibration
Form 7

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610	
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015	
Instrument ID	: BNA6	**Calibration Date**	: 08/27/16 09:31	
Lab File ID	: F608261628	**Init. Calib. Date(s)**	: 08/10/16	08/10/16
Sample No	: WG926828-6	**Init. Calib. Times**	: 14:22	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	78	-.06
1,4-dioxane	1.433	1.47	-	-2.6	20	78	-.06
1,4-Dichlorobenzene-d4	1	1	-	0	20	83	-.09
1,4-dioxane-d8	0.433	0.393	-	9.2	20	77	-.06

*** Value outside of QC limits.**

Continuing Calibration
Form 7

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610	
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015	
Instrument ID	: BNA6	**Calibration Date**	: 08/27/16 19:56	
Lab File ID	: F608261642	**Init. Calib. Date(s)**	: 08/10/16	08/10/16
Sample No	: WG926828-9	**Init. Calib. Times**	: 14:22	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	90	-.07
1,4-dioxane	1.433	1.359	-	5.2	20	83	-.07
1,4-Dichlorobenzene-d4	1	1	-	0	20	94	-.09
1,4-dioxane-d8	0.433	0.396	-	8.5	20	88	-.07

* Value outside of QC limits.

Continuing Calibration
Form 7

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610	
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015	
Instrument ID	: BNA6	**Calibration Date**	: 09/07/16 05:38	
Lab File ID	: F609061625	**Init. Calib. Date(s)**	: 09/06/16	09/06/16
Sample No	: WG929257-6	**Init. Calib. Times**	: 12:28	16:52
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	98	.02
1,4-dioxane	1.317	1.35	-	-2.5	20	97	.02
1,4-Dichlorobenzene-d4	1	1	-	0	20	103	0
1,4-dioxane-d8	0.369	0.35	-	5.1	20	92	.02

* Value outside of QC limits.

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/26/16 23:10
Sample No	: WG926828-3	**Lab File ID**	: F608261614

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG926828-3	170534	15.43				
Upper Limit	341068	15.93				
Lower Limit	85267	14.93				
Sample ID						
WG926303-1 BLANK	157984	15.43				
WG926303-2 LCS	154412	15.42				
WG926303-3 LCSD	152722	15.43				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/27/16 09:31
Sample No	: WG926828-6	**Lab File ID**	: F608261628

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG926828-6	167148	15.42				
Upper Limit	334296	15.92				
Lower Limit	83574	14.92				
Sample ID						
RW-11D (262-267)-082316	167786	15.42				
PMP-AS-180-082316	171323	15.42				
PMP-AS-50-082316	156781	15.42				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/27/16 19:56
Sample No	: WG926828-9	**Lab File ID**	: F608261642

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG926828-9	189244	15.42				
Upper Limit	378488	15.92				
Lower Limit	94622	14.92				
Sample ID						
PMP-AS-230-082316	184313	15.42				
RW-11S (236-244)-082316	171464	15.42				
RW-3DD (125-180)-082316	178780	15.42				
RW-3DS (155-160)-082316	183151	15.42				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone/Cadena Co. joint accoun	**Lab Number**	: L1626610
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 09/07/16 05:38
Sample No	: WG929257-6	**Lab File ID**	: F609061625

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG929257-6	230892	15.42				
Upper Limit	461784	15.92				
Lower Limit	115446	14.92				
Sample ID						
WG929215-1 BLANK	183204	15.42				
WG929215-2 LCS	180495	15.42				
WG929215-3 LCSD	174318	15.42				
RW-3DD (125-180)-082316	193703	15.42				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

ALPHA ANALYTICAL

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Lab Number: L1626817

Client: Cornerstone/Cadena Co. joint acc

ATTN: Jim Tomalia

Project Name: FORD-RINGWOOD

Project Number: 140802-015

September 21, 2016

Data Deliverable Revision Narrative
Alpha SDG: L1626817
Client: Cornerstone Environmental Group, LLC
Site: FORD-RINGWOOD

This data package replaces the data package issued on September 1, 2016. The package type has changed to DPKG-FULL.

Table of Contents

Table of Contents

Sample Delivery Group Information

Sample Delivery Group Form

Laboratory Job number: L1626817
Project Manager: Nichole Hunt **Review Date:** 08/30/2016
Project Number: 140802-015
Project Name: FORD-RINGWOOD **Received:** 08/25/2016 08:32
Client Account: Cornerstone/Cadena Co. joint account **Received by:** KB

Samples Delivered by: COURIER **Call Tracker #**
Bill Of Laden N/A **Trackingnum**
Coc Present Present

Container Status Intact **Sample IDs**

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt 7 **Are samples Properly Preserved?** Yes
Initial pH **preserved in house with** **Final pH**
Other Issues
Chlorine Check N/A

Are VOA/VPH Vials Present? No
Aqueous: Do Vials Contain Head Space? N/A
Soils: Is MeOHCovering the Soil? N/A
Reagent H2O Preserved vials Frozen on N/A
Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
A	Absent	Yes	No	2.0 - IR Gun	No	No

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 21 2016, 06:49 pm

Login Number: L1626817
Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015
Received: 25AUG16 Due Date: 01SEP16

Sample #	Client ID	Mat	PR	Collected	Container
L1626817-01	FB-04-082416		1	S0 24AUG16 07:45	2-Amber-A.5
| DPKG-FULL Package Due Date: 09/01/16					
A2-14-DIOXANESIM-PPB,DPKG-FULL,NJDEP					
L1626817-02	DUP-04-082416		1	S0 24AUG16 12:00	2-Amber-A.5
| Package Due Date: 09/01/16					
A2-14-DIOXANESIM-PPB					
L1626817-03	RW-3-082416		1	S0 24AUG16 09:35	2-Amber-A.5
| Package Due Date: 09/01/16					
A2-14-DIOXANESIM-PPB					
L1626817-04	RW-15S (110-120)-08		1	S0 24AUG16 11:50	2-Amber-A.5
| Package Due Date: 09/01/16					
A2-14-DIOXANESIM-PPB					
L1626817-05	RW-15S (110-120)-08		1	S0 24AUG16 11:50	2-Amber-A.5
MS L1626817-05 L1626817-05 MSD Package Due Date: 09/01/16					
A2-14-DIOXANESIM-PPB,A2-MS/MSD					
L1626817-06	RW-15S (110-120)-08		1	S0 24AUG16 11:50	2-Amber-A.5
MSD L1626817-06 Package Due Date: 09/01/16					
A2-14-DIOXANESIM-PPB					
L1626817-07	RW-15D (127-137)-08		1	S0 24AUG16 13:40	2-Amber-A.5
| Package Due Date: 09/01/16					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 21 2016, 06:49 pm

Login Number: L1626817

Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015

Received: 25AUG16 Due Date: 01SEP16

Sample #	Client ID	Mat	PR	Collected	Container
A2-14-DIOXANESIM-PPB					
L1626817-08	RW-4 (333-343)-0824	1	S0	24AUG16 14:50	2-Amber-A.5
| Package Due Date: 09/01/16					
A2-14-DIOXANESIM-PPB					
L1626817-09	RW-4 (393-403)-0824	1	S0	24AUG16 15:35	2-Amber-A.5
| Package Due Date: 09/01/16					
A2-14-DIOXANESIM-PPB					
L1626817-10	RW-4A (113-123)-082	1	S0	24AUG16 16:10	2-Amber-A.5
| Package Due Date: 09/01/16					
A2-14-DIOXANESIM-PPB					

Logged By: Nichole Hunt

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1626817-01A	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-01A	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-01B	Amber-A.5	EMPTY	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Brian Anderson	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brian Anderson
L1626817-01B	Amber-A.5	INTACT	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626817-01B	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-01B	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-02A	Amber-A.5	EMPTY	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Brian Anderson	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brian Anderson
L1626817-02A	Amber-A.5	INTACT	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626817-02A	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-02A	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-02B	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-02B	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-03A	Amber-A.5	EMPTY	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Brian Anderson	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brian Anderson
L1626817-03A	Amber-A.5	INTACT	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626817-03A	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-03A	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-03B	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-03B	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-04A	Amber-A.5	EMPTY	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Brian Anderson	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brian Anderson
L1626817-04A	Amber-A.5	INTACT	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626817-04A	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-04A	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-04B	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-04B	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-05A	Amber-A.5	EMPTY	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Brian Anderson	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brian Anderson

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1626817-05A	Amber-A.5	INTACT	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626817-05A	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-05A	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-05B	Amber-A.5	EMPTY	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Brian Anderson	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brian Anderson
L1626817-05B	Amber-A.5	INTACT	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626817-05B	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-05B	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-06A	Amber-A.5	EMPTY	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Brian Anderson	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brian Anderson
L1626817-06A	Amber-A.5	INTACT	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626817-06A	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-06A	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-06B	Amber-A.5	EMPTY	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Brian Anderson	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brian Anderson
L1626817-06B	Amber-A.5	INTACT	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626817-06B	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-06B	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-07A	Amber-A.5	EMPTY	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Brian Anderson	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brian Anderson
L1626817-07A	Amber-A.5	INTACT	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626817-07A	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-07A	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-07B	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-07B	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-08A	Amber-A.5	EMPTY	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Brian Anderson	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brian Anderson
L1626817-08A	Amber-A.5	INTACT	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626817-08A	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-08A	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1626817-08B	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-08B	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-09A	Amber-A.5	EMPTY	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Brian Anderson	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brian Anderson
L1626817-09A	Amber-A.5	INTACT	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626817-09A	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-09A	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-09B	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-09B	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-10A	Amber-A.5	EMPTY	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Brian Anderson	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Brian Anderson
L1626817-10A	Amber-A.5	INTACT	27-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-NOAA1	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626817-10A	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-10A	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626817-10B	Amber-A.5	INTACT	26-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-NOAA1	A2-CUSTODY-NOAA1	Kim L. Bailey
L1626817-10B	Amber-A.5	INTACT	26-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang

Chain of Custody

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 8/26/16

ALPHA Job #: L1621617

Client Information
Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information
Project Name: Ford - Ringwood
Project Location: Ringwood, NJ
Project #: 140802-015
(Use Project name as Project #)
Project Manager: Tim Cooper
ALPHAQuote #:

Turn-Around Time
Standard [X] Due Date:
Rush (only if pre approved) [ ] # of Days:

Deliverables
- [ ] NJ Full / Reduced
- [ ] EQuIS (1 File) [ ] EQuIS (4 File)
- [ ] Other

Regulatory Requirement
- [ ] SRS Residential/Non Residential
- [ ] SRS Impact to Groundwater
- [ ] NJ Ground Water Quality Standards
- [ ] NJ IGW SPLP Leachate Criteria
- [ ] Other

Billing Information
- [ ] Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes [ ]
Petroleum Product:

These samples have been previously analyzed by Alpha [ ]

For EPH, selection is REQUIRED:
- [ ] Category 1
- [ ] Category 2

For VOC, selection is REQUIRED:
- [ ] 1,4-Dioxane
- [ ] 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

A2 1,4 Dioxane SIM - PAB

Sample Filtration
- [ ] Done
- [ ] Lab to do

Preservation
- [ ] Lab to do

(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2	Sample Specific Comments
26817.01	FB-04-082416	8/24/16	07:45	GW	RR	✓	
02	Dup-04-082416	8/24/16	12:00	GW	RR	✓	
03	RW-3-082416	8/24/16	09:35	GW	RR	✓	
04	RW-15S(110-120)-082416	8/24/16	11:50	GW	RR	✓	
05	RW-15S(110-120)-082416 MS	8/24/16	11:50	GW	RR	✓	
06	RW-15S(110-120)-082416 MSD	8/24/16	11:50	GW	RR	✓	
07	RW-15D(127-137)-082416	8/24/16	13:40	GW	RR	✓	
08	RW-4(333-343)-082416	8/24/16	14:50	GW	RR	✓	
09	RW-4(393-403)-082416	8/24/16	15:35	GW	RR	✓	
10	RW-4A(113-123)-082416	8/24/16	16:10	GW	RR	✓	

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/25/16 8:32	[signature]	8/25/16 8:32
[signature]	8/25/16 1800	[signature]	8-25-16 1800
[signature]	8-26-16 0900	[signature]	8/26/16 0900
[signature]	8/26/16 10:35	[signature]	8/26/16 10:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Organics

GCMS Extractables 1,4-Dioxane By SIM

Initial Calibration

Response Factor Report BNA6

Method Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Method File : 14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016
Response Via : Initial Calibration

Calibration Files
10 =F608101604.D 50 =F608101605.D 100 =F608101606.D 500 =F608101607.D 1000=F608101608.D
5000=F608101609.D 1e4 =F608101610.D

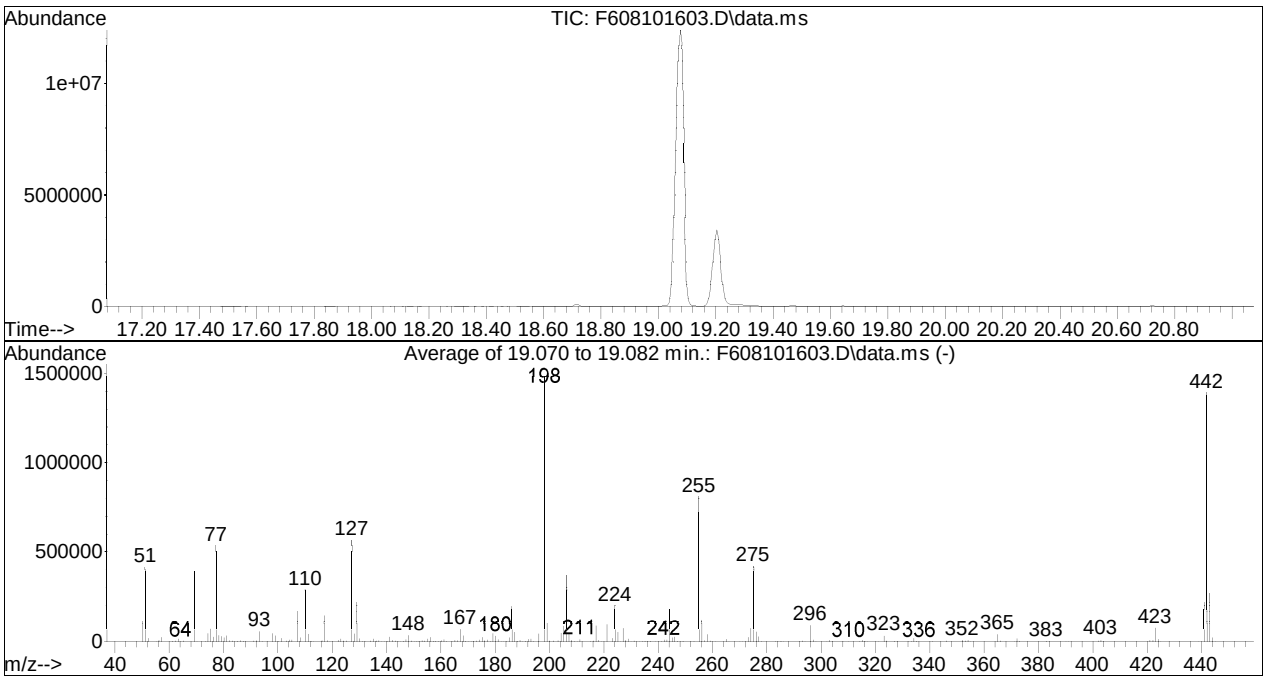
	Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)	1,4-Dioxane-d8 (IS)	ISTD								
2)	1,4-dioxane	1.556	1.402	1.394	1.386	1.470	1.417	1.405	1.433	4.24
3) I	1,4-Dichlorobenzene-d4	ISTD								
4) s	1,4-dioxane-d8	0.428	0.444	0.423	0.441	0.417	0.442	0.435	0.433	2.41

(#) = Out of Range

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101603.D
Acq On : 10 Aug 2016 1:25 pm
Operator : BNA6:SF
Sample : T608101601
Misc : WG921943,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



AutoFind: Scans 1879, 1880, 1881; Background Corrected with Scan 1856

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.1	414533	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2219	PASS
127	198	10	80	38.3	565504	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1476097	PASS
199	198	5	9	6.8	100408	PASS
275	198	10	60	28.4	419669	PASS
365	198	1	100	2.8	40728	PASS
441	442	0.01	24	15.6	217472	PASS
442	198	50	100	94.3	1392469	PASS
443	442	15	24	19.4	270059	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101604.D
Acq On : 10 Aug 2016 2:22 pm
Operator : BNA6:SF
Sample : I608101601
Misc : WG921943,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 12:53:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	85056	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.503	152	198789	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	85056	494.380	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 98.88%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.980	88	2647	10.858	ng/mL	98

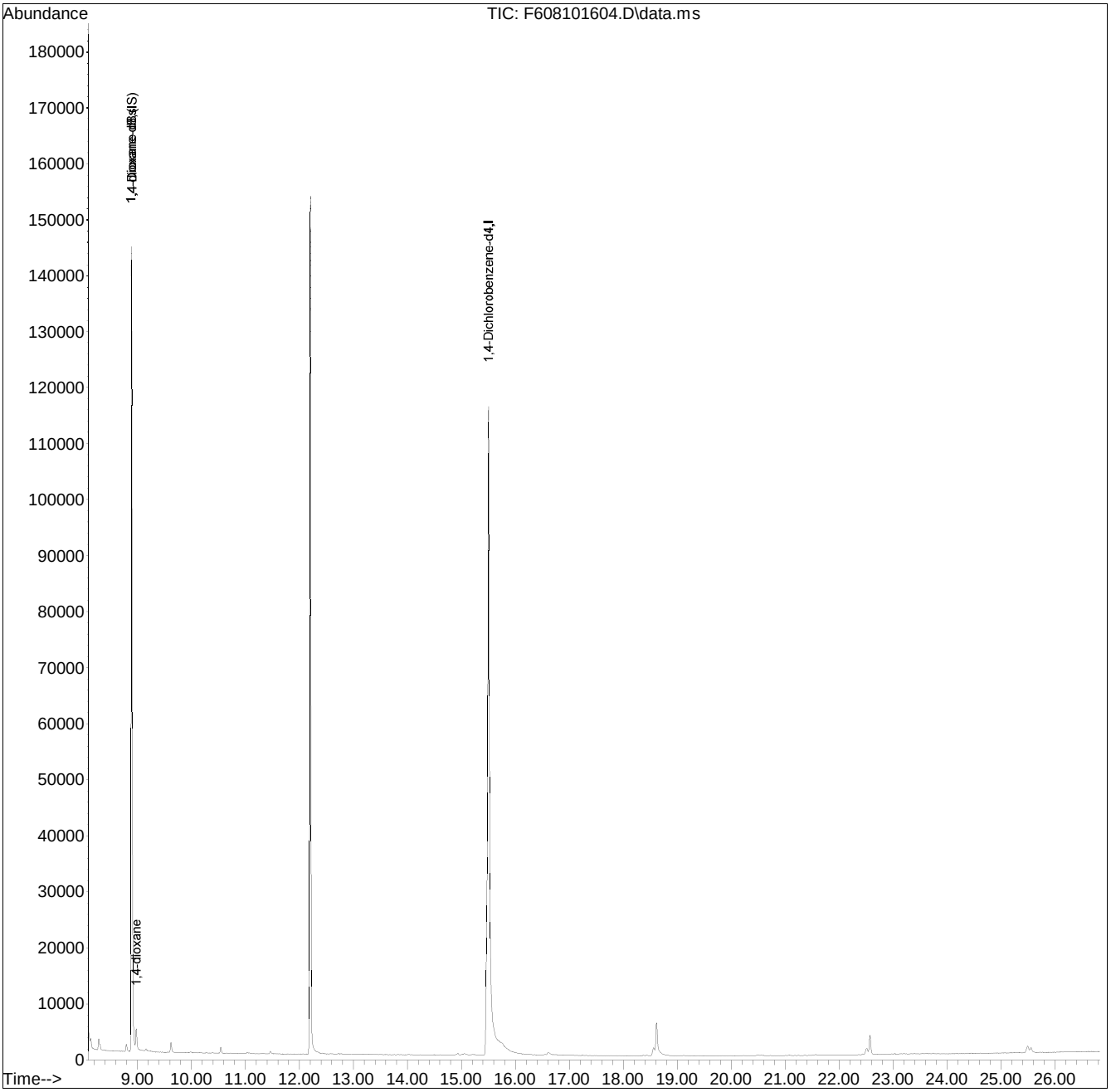
(#) = qualifier out of range (m) = manual integration (+) = signals summed

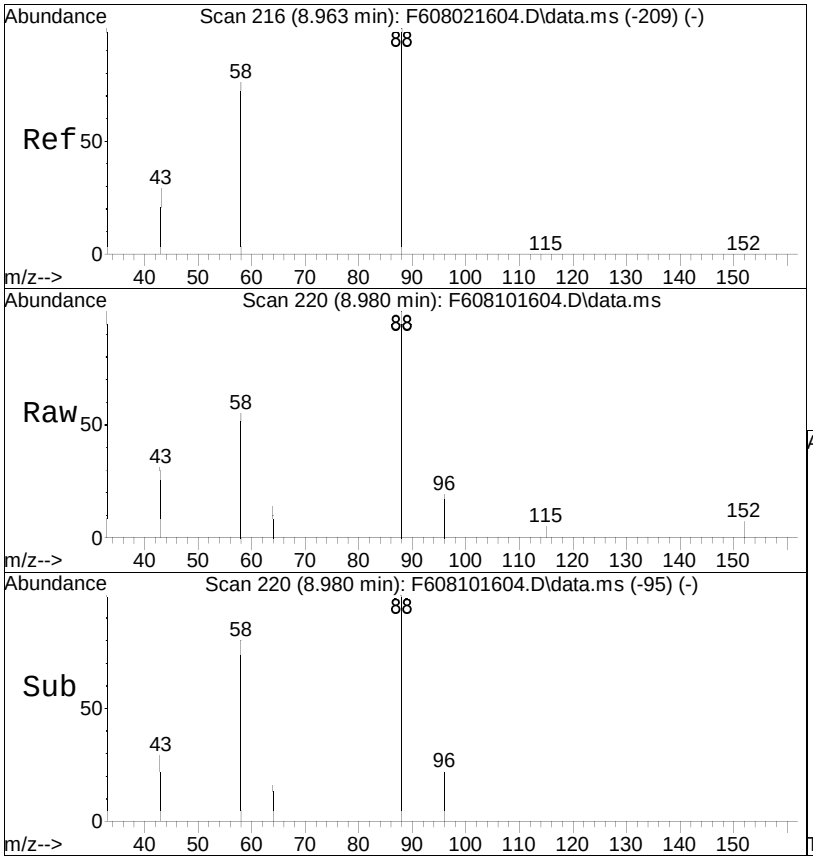
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101604.D
Acq On : 10 Aug 2016 2:22 pm
Operator : BNA6:SF
Sample : I608101601
Misc : WG921943,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 12:53:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

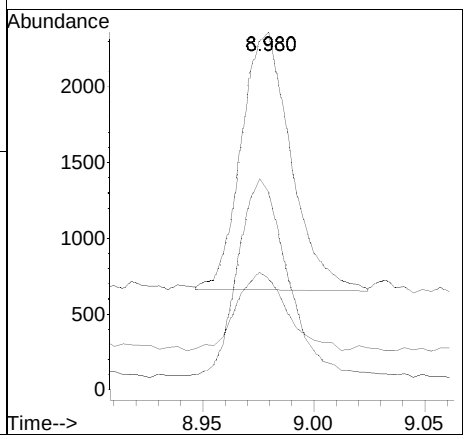




#2
1,4-dioxane
Concen: 10.86 ng/mL
RT: 8.980 min Scan# 220
Delta R.T. 0.008 min
Lab File: F608101604.D
Acq: 10 Aug 2016 2:22 pm

Tgt Ion: 88 Resp: 2647

Ion	Ratio	Lower	Upper
88	100		
58	76.2	62.1	93.1
43	31.4	24.4	36.6



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101604.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 2:22 pm	Instrument	: BNA6
Sample	: I608101601	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101605.D
Acq On : 10 Aug 2016 3:07 pm
Operator : BNA6:SF
Sample : I608101602
Misc : WG921943,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 11 12:53:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	88228	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	198548	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	88228	513.440	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.69%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.984	88	12373	48.930	ng/mL	100

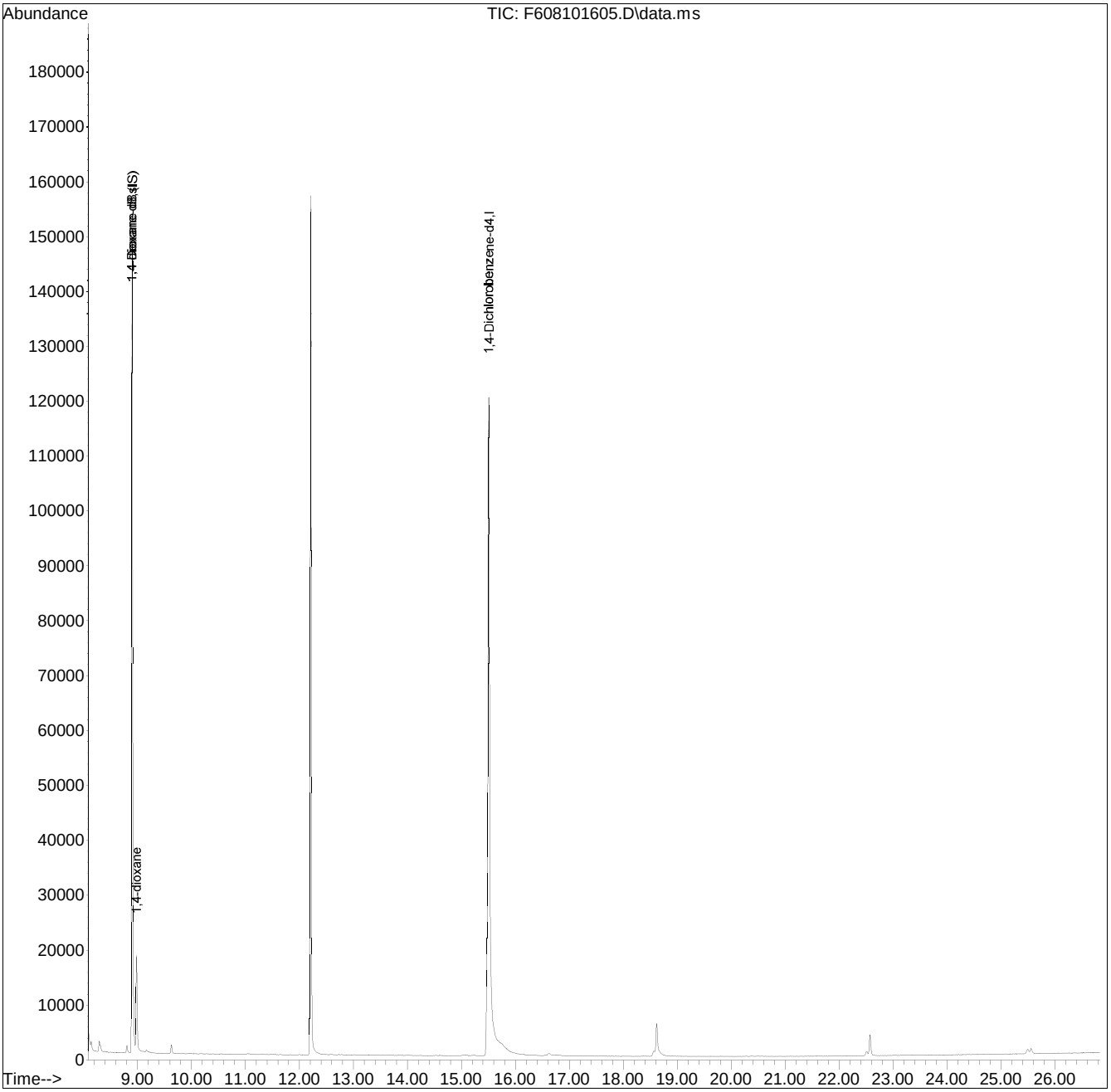
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101605.D
Acq On : 10 Aug 2016 3:07 pm
Operator : BNA6:SF
Sample : I608101602
Misc : WG921943,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 11 12:53:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101605.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 3:07 pm	Instrument	: BNA6
Sample	: I608101602	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101606.D
Acq On : 10 Aug 2016 3:51 pm
Operator : BNA6:SF
Sample : I608101603
Misc : WG921943,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 11 12:53:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

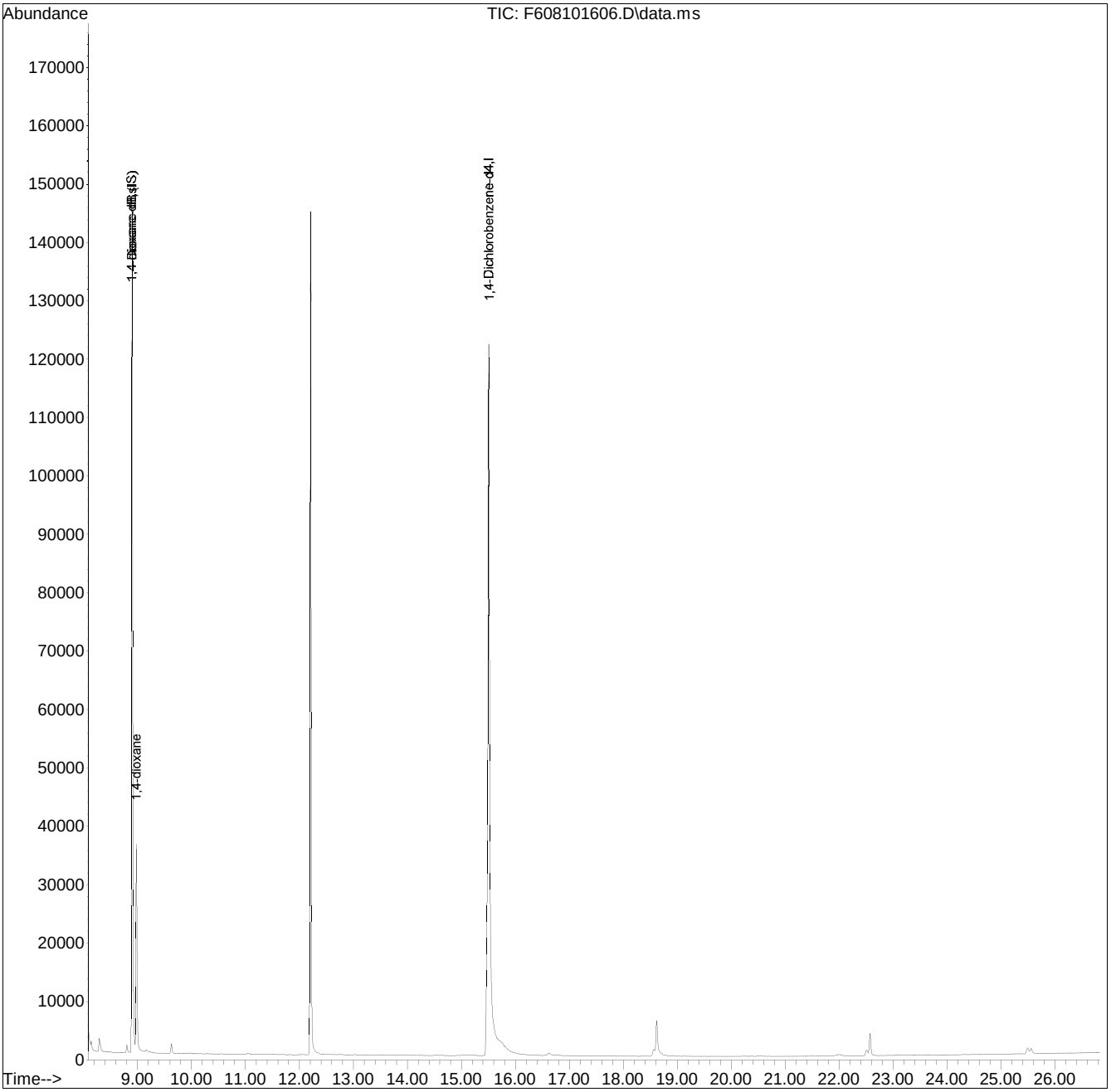
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	86899	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	205668	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	86899	488.199	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 97.64%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.980	88	24230	97.284	ng/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101606.D
Acq On : 10 Aug 2016 3:51 pm
Operator : BNA6:SF
Sample : I608101603
Misc : WG921943,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 11 12:53:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101606.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 3:51 pm	Instrument	: BNA6
Sample	: I608101603	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101607.D
Acq On : 10 Aug 2016 4:36 pm
Operator : BNA6:SF
Sample : I608101604
Misc : WG921943,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 11 12:53:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	86585	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	196925	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	86794M4	509.257	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 101.85%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.972	88	120017M4	483.619	ng/mL	

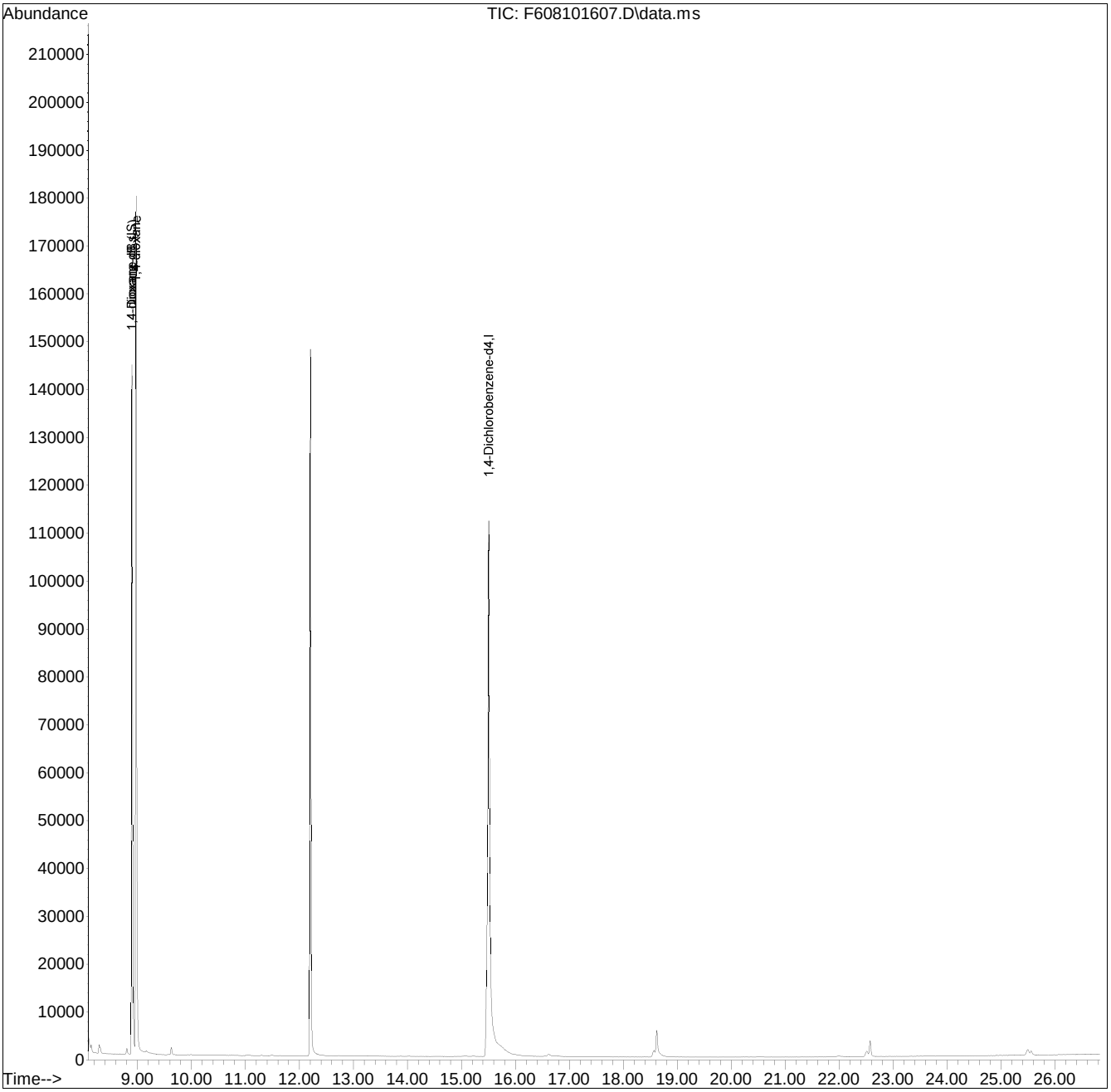
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101607.D
Acq On : 10 Aug 2016 4:36 pm
Operator : BNA6:SF
Sample : I608101604
Misc : WG921943,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 11 12:53:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

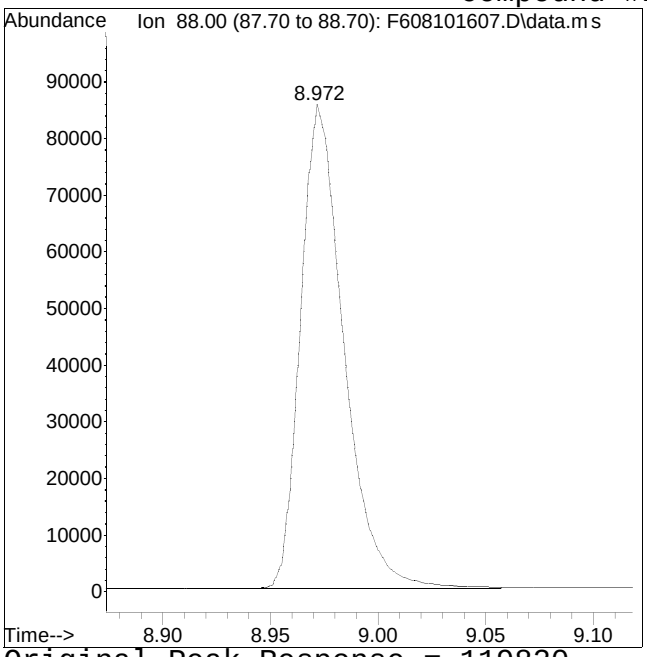
Sub List : Default - All compounds listed



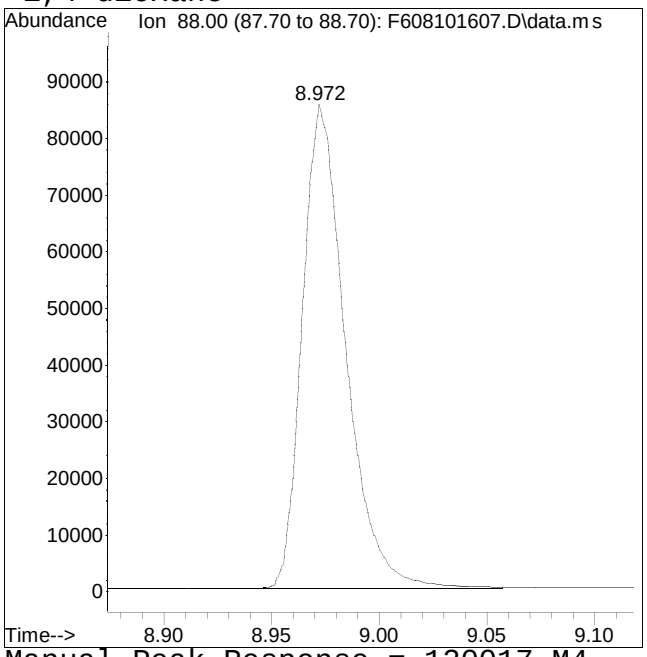
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101607.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 4:36 pm Instrument : BNA6
Sample : I608101604 Quant Date : 8/11/2016 12:53 pm

Compound #2: 1,4-dioxane



Original Peak Response = 119820



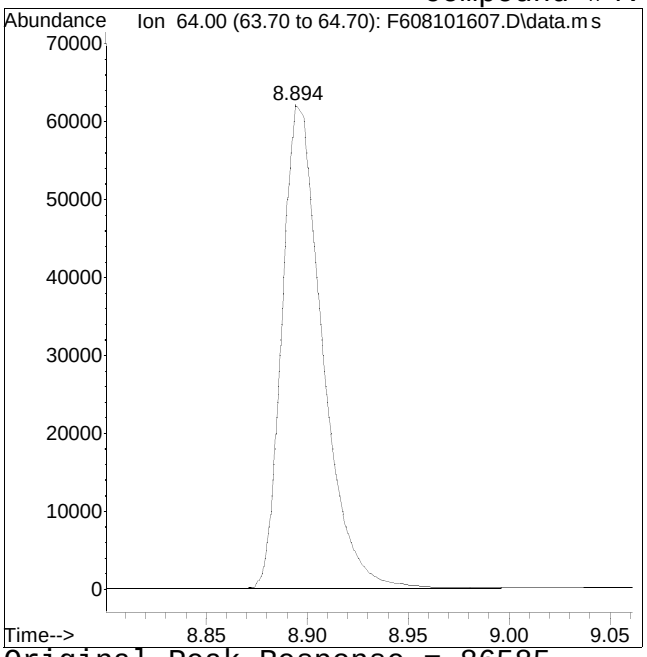
Manual Peak Response = 120017 M4

M4 = Poor automated baseline construction.

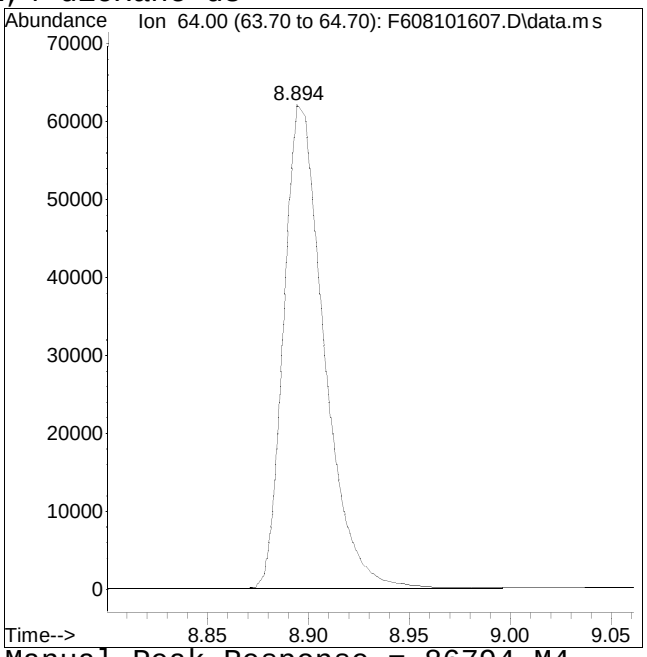
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101607.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 4:36 pm Instrument : BNA6
Sample : I608101604 Quant Date : 8/11/2016 12:53 pm

Compound #4: 1,4-dioxane-d8



Original Peak Response = 86585



Manual Peak Response = 86794 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101608.D
Acq On : 10 Aug 2016 5:21 pm
Operator : BNA6:SF
Sample : I608101605
Misc : WG921943,MSAK15
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 11 12:53:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	83650	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	200518	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	83650	482.016	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 96.40%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.971	88	245983	1025.987	ng/mL	99

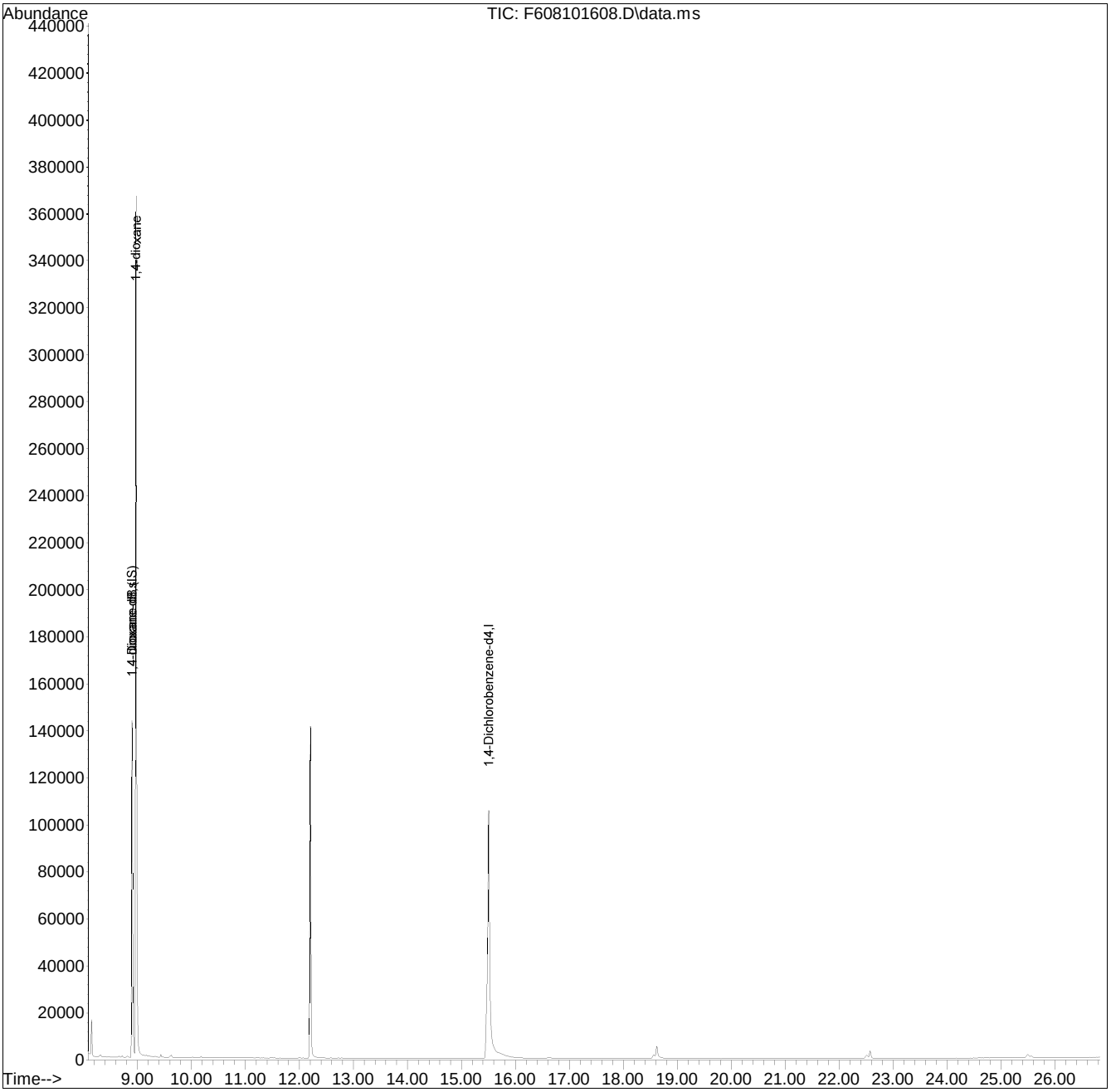
(#) = qualifier out of range (m) = manual integration (+) = signals summed

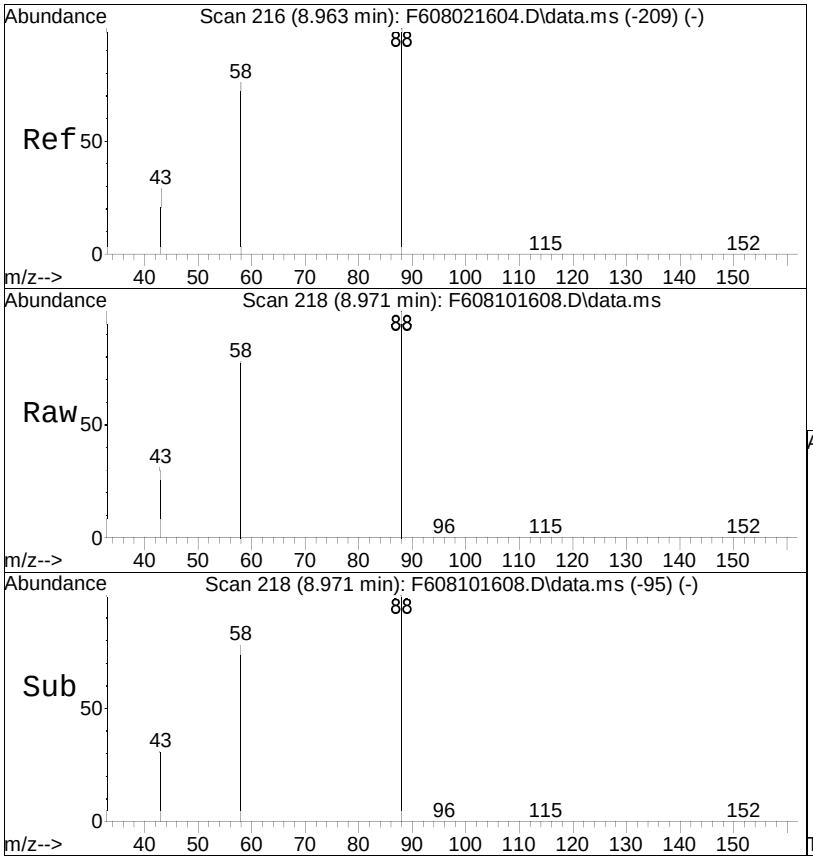
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101608.D
Acq On : 10 Aug 2016 5:21 pm
Operator : BNA6:SF
Sample : I608101605
Misc : WG921943,MSAK15
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 11 12:53:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

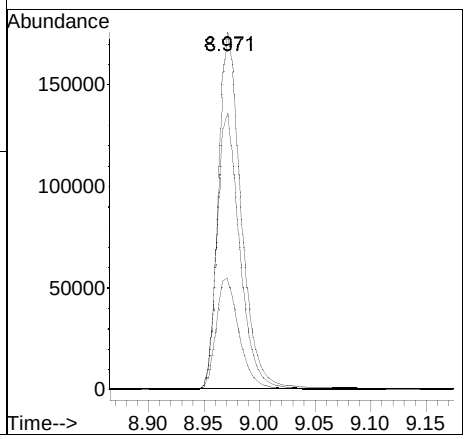




#2
1,4-dioxane
Concen: 1025.99 ng/mL
RT: 8.971 min Scan# 218
Delta R.T. 0.000 min
Lab File: F608101608.D
Acq: 10 Aug 2016 5:21 pm

Tgt Ion: 88 Resp: 245983

Ion	Ratio	Lower	Upper
88	100		
58	78.3	62.1	93.1
43	31.7	24.4	36.6



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101608.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 5:21 pm	Instrument	: BNA6
Sample	: I608101605	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101609.D
Acq On : 10 Aug 2016 6:06 pm
Operator : BNA6:SF
Sample : I608101606
Misc : WG921943,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 11 12:53:40 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

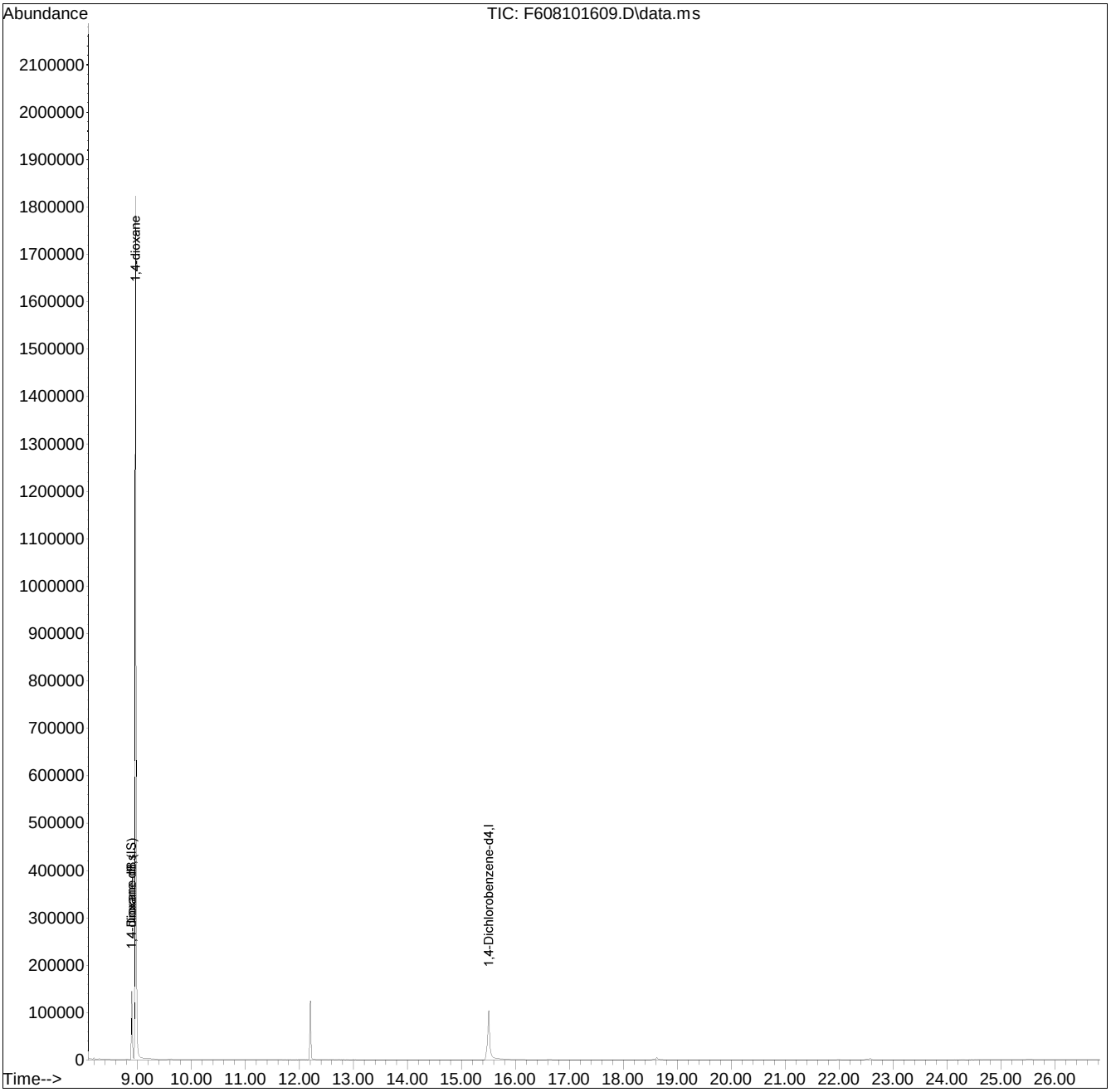
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	84632M4	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	191584	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	84626M4	510.379	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.08%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.963	88	1199636	4945.586	ng/mL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101609.D
Acq On : 10 Aug 2016 6:06 pm
Operator : BNA6:SF
Sample : I608101606
Misc : WG921943,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 11 12:53:40 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

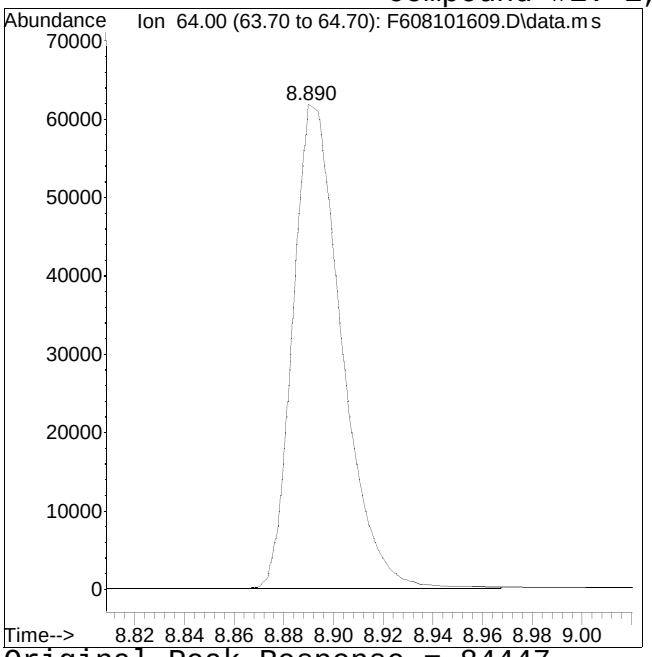
Sub List : Default - All compounds listed



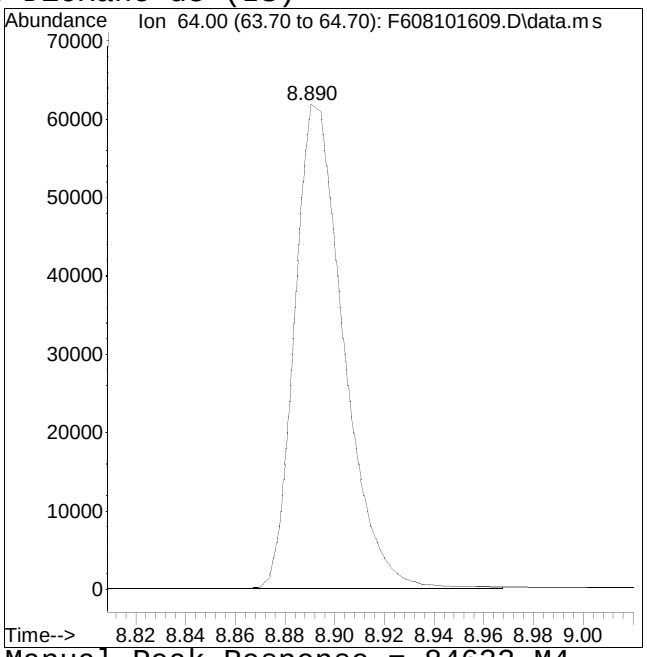
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101609.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 6:06 pm Instrument : BNA6
Sample : I608101606 Quant Date : 8/11/2016 12:53 pm

Compound #1: 1,4-Dioxane-d8 (IS)



Original Peak Response = 84447



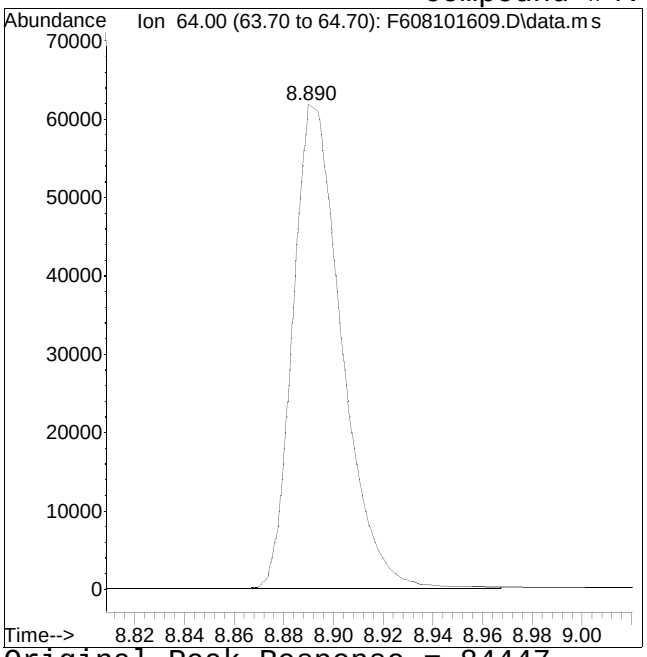
Manual Peak Response = 84632 M4

M4 = Poor automated baseline construction.

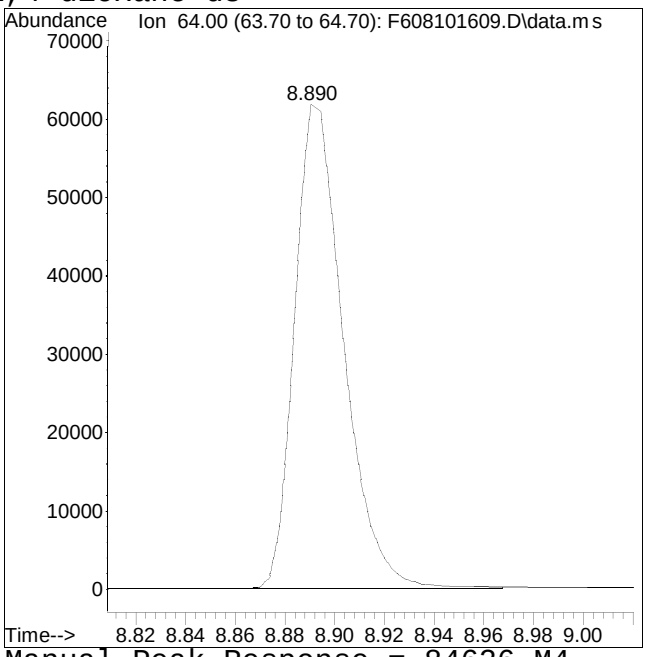
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101609.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 6:06 pm Instrument : BNA6
Sample : I608101606 Quant Date : 8/11/2016 12:53 pm

Compound #4: 1,4-dioxane-d8



Original Peak Response = 84447



Manual Peak Response = 84626 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101610.D
Acq On : 10 Aug 2016 6:51 pm
Operator : BNA6:SF
Sample : I608101607
Misc : WG921943,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 11 12:53:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.882	64	82789	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.503	152	190429	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.882	64	82789	502.329	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 100.47%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	2326389	9804.210	ng/mL	99

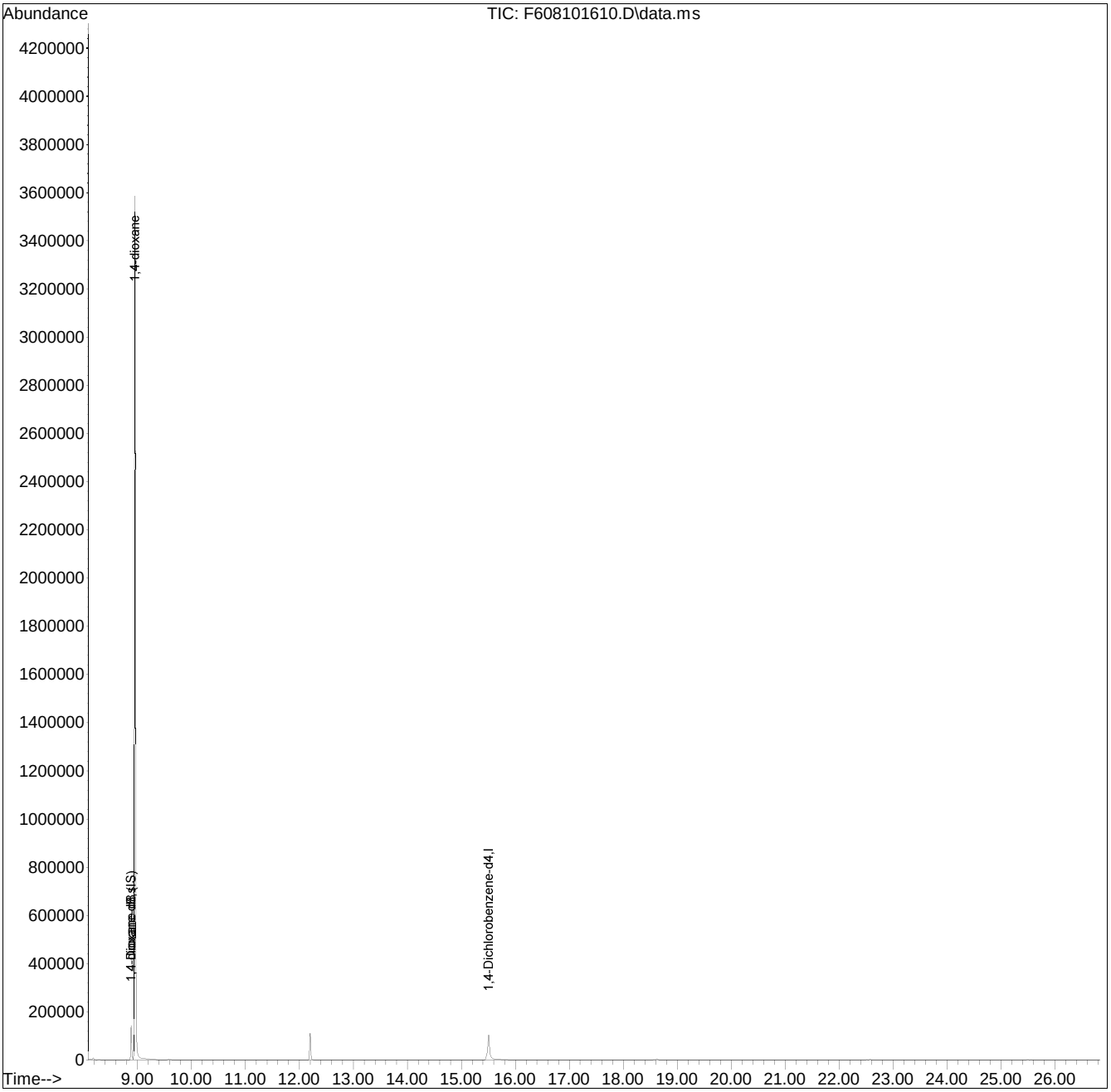
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101610.D
Acq On : 10 Aug 2016 6:51 pm
Operator : BNA6:SF
Sample : I608101607
Misc : WG921943,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 11 12:53:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101610.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 6:51 pm	Instrument	: BNA6
Sample	: I608101607	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	98	0.00
2	1,4-dioxane	1.433	1.360	5.1	91	0.00
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
4 s	1,4-dioxane-d8	0.433	0.442	-2.1	97	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	82343	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	186413	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	82343	510.386	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.08%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.968	88	223932	948.839	ng/mL	99

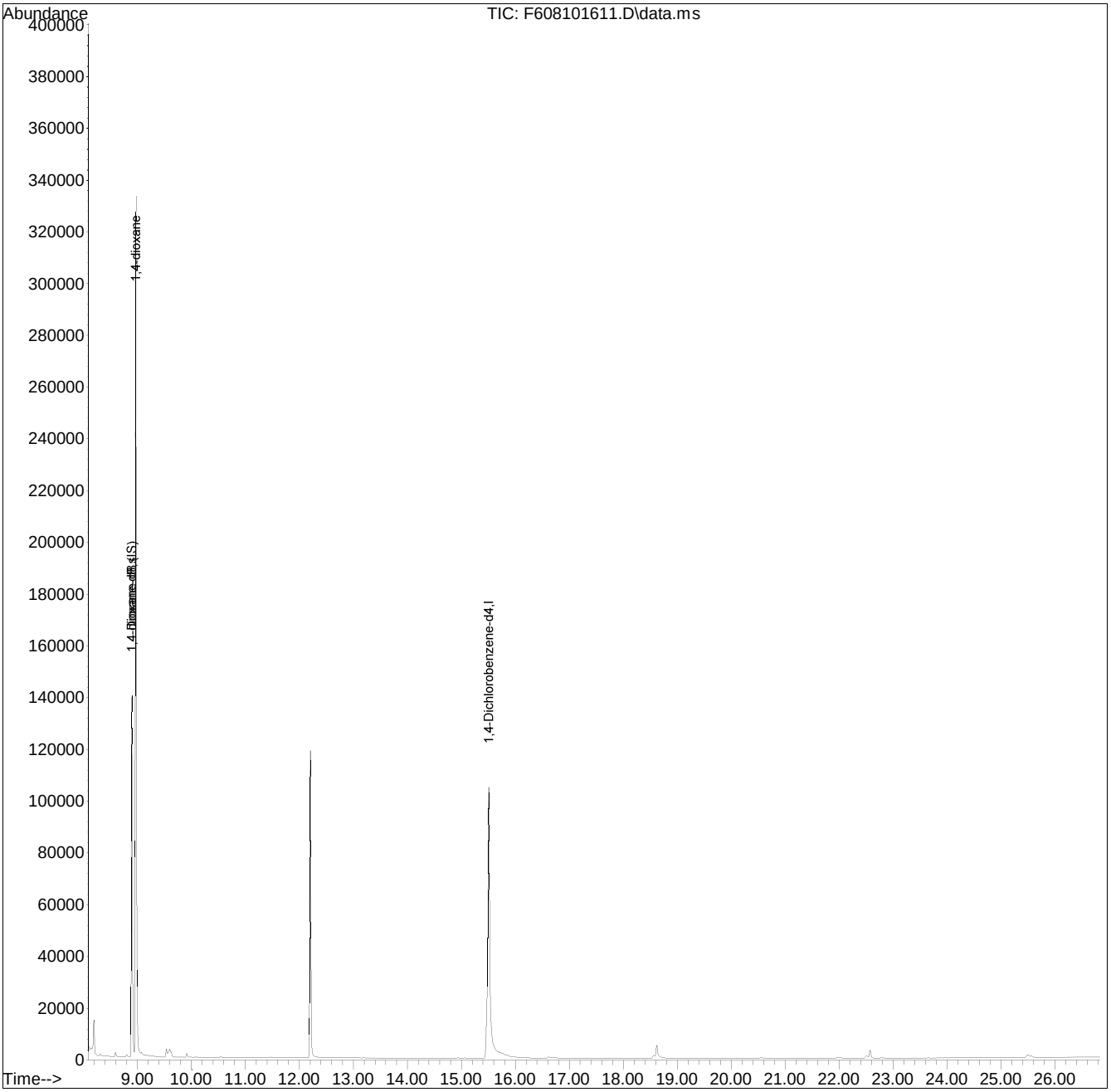
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101611.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 7:36 pm	Instrument	: BNA6
Sample	: CQ608101601	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 20 2016, 04:05 pm

Work Group: WG926574 for Department: 2 Organic Preparation

Created: 27-AUG-16 Due: Operator: ABS

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1626817-01	FB-04-082416	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0831	0901	S0	Amber-A.5
L1626817-02	DUP-04-082416	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0831	0901	S0	Amber-A.5
L1626817-03	RW-3-082416	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0831	0901	S0	Amber-A.5
L1626817-04	RW-15S (110-120)-082	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0831	0901	S0	Amber-A.5
L1626817-05	RW-15S (110-120)-082	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0831	0901	S0	Amber-A.5
L1626817-06	RW-15S (110-120)-082	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0831	0901	S0	Amber-A.5
L1626817-07	RW-15D (127-137)-082	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0831	0901	S0	Amber-A.5
L1626817-08	RW-4 (333-343)-08241	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0831	0901	S0	Amber-A.5
L1626817-09	RW-4 (393-403)-08241	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0831	0901	S0	Amber-A.5
L1626817-10	RW-4A (113-123)-0824	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0831	0901	S0	Amber-A.5
WG926574-1	Laboratory Method Bl	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG926574-2	Laboratory Control S	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG926574-3	LCS Duplicate	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG926574-4	Matrix Spike	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG926574-5	Matrix Spike Duplica	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				

Comments:

WG926574-3	WG926574-2
WG926574-4	L1626817-05
WG926574-5	L1626817-05

Sequence Logs

Analysis log File SF 081116

Total Files Reported in Log : 11
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Aug\Aug10\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F608101601.D	14DIOXDFTPPB	TUNE	MSAK38	8/10/2016 11:28 am
2	F608101602.D	14DIOXBNA6.M	CCV	MSAK15	8/10/2016 12:25 pm
3	F608101603.D	14DIOXDFTPPB	T608101601	WG921943,MSAK38	8/10/2016 1:25 pm
4	F608101604.D	14DIOXBNA6.M	I608101601	WG921943,MSAJ77	8/10/2016 2:22 pm
5	F608101605.D	14DIOXBNA6.M	I608101602	WG921943,MSAJ78	8/10/2016 3:07 pm
6	F608101606.D	14DIOXBNA6.M	I608101603	WG921943,MSAJ79	8/10/2016 3:51 pm
7	F608101607.D	14DIOXBNA6.M	I608101604	WG921943,MSAJ80	8/10/2016 4:36 pm
8	F608101608.D	14DIOXBNA6.M	I608101605	WG921943,MSAK15	8/10/2016 5:21 pm
9	F608101609.D	14DIOXBNA6.M	I608101606	WG921943,MSAJ82	8/10/2016 6:06 pm
10	F608101610.D	14DIOXBNA6.M	I608101607	WG921943,MSAJ76	8/10/2016 6:51 pm
11	F608101611.D	14DIOXBNA6.M	CQ608101601	WG921943,MSAJ49	8/10/2016 7:36 pm

Analysis log File

Total Files Reported in Log : 19
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Aug\Aug29\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F608291601.D	14DIOXDFTPPB	WG926975-1	WG926975,MSAK38	8/29/2016 9:04 am
2	F608291602.D	14DIOXBNA6.M	WG926975-3	WG926975,MSAK15	8/29/2016 10:00 am
3	F608291603.D	14DIOXBNA6.M	WG926574-1	WG926975,WG926574..	8/29/2016 3:00 pm
4	F608291604.D	14DIOXBNA6.M	WG926574-2	WG926975,WG926574..	8/29/2016 3:44 pm
5	F608291605.D	14DIOXBNA6.M	WG926574-3	WG926975,WG926574..	8/29/2016 4:29 pm
6	F608291606.D	14DIOXBNA6.M	L1626817-01	WG926975,WG926574..	8/29/2016 5:13 pm
7	F608291607.D	14DIOXBNA6.M	L1626817-02	WG926975,WG926574..	8/29/2016 5:57 pm
8	F608291608.D	14DIOXBNA6.M	L1626817-03	WG926975,WG926574..	8/29/2016 6:41 pm
9	F608291609.D	14DIOXBNA6.M	L1626817-04	WG926975,WG926574..	8/29/2016 7:25 pm
10	F608291610.D	14DIOXDFTPPB	WG926975-4	WG926975,MSAK38	8/29/2016 8:05 pm
11	F608291611.D	14DIOXBNA6.M	WG926975-6	WG926975,MSAK46	8/29/2016 9:01 pm
12	F608291612.D	14DIOXBNA6.M	L1626817-05	WG926975,WG926574..	8/29/2016 9:45 pm
13	F608291613.D	14DIOXBNA6.M	WG926574-4	WG926975,WG926574..	8/29/2016 10:29 pm
14	F608291614.D	14DIOXBNA6.M	L1626817-06	WG926975,WG926574..	8/29/2016 11:12 pm
15	F608291615.D	14DIOXBNA6.M	WG926574-5	WG926975,WG926574..	8/29/2016 11:56 pm
16	F608291616.D	14DIOXBNA6.M	L1626817-07	WG926975,WG926574..	8/30/2016 12:40 am
17	F608291617.D	14DIOXBNA6.M	L1626817-08	WG926975,WG926574..	8/30/2016 1:23 am
18	F608291618.D	14DIOXBNA6.M	L1626817-09	WG926975,WG926574..	8/30/2016 2:07 am
19	F608291619.D	14DIOXBNA6.M	L1626817-10	WG926975,WG926574..	8/30/2016 2:51 am

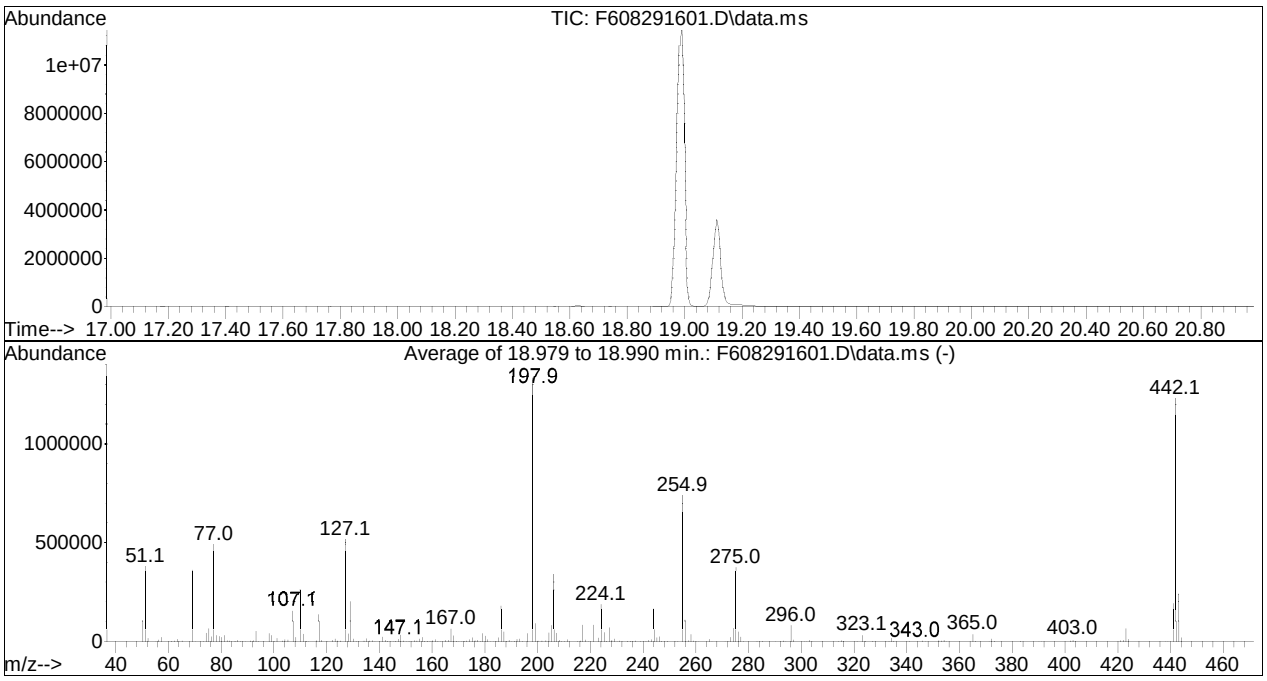
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291601.D
Acq On : 29 Aug 2016 9:04 am
Operator : BNA6:WR
Sample : WG926975-1
Misc : WG926975,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



AutoFind: Scans 1863, 1864, 1865; Background Corrected with Scan 1851

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.2	376279	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	1963	PASS
127	198	10	80	38.4	512810	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1335019	PASS
199	198	5	9	6.8	90603	PASS
275	198	10	60	27.9	371968	PASS
365	198	1	100	2.8	36837	PASS
441	442	0.01	24	15.4	189035	PASS
442	198	50	100	92.0	1228288	PASS
443	442	15	24	19.5	239083	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291602.D
Acq On : 29 Aug 2016 10:00 am
Operator : BNA6:WR
Sample : WG926975-3
Misc : WG926975,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 31 12:51:19 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	91	-0.08
2	1,4-dioxane	1.433	1.378	3.8	85	-0.08
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	-0.09
4 s	1,4-dioxane-d8	0.433	0.376	13.2	89	-0.08

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291602.D
Acq On : 29 Aug 2016 10:00 am
Operator : BNA6:WR
Sample : WG926975-3
Misc : WG926975,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 31 12:51:19 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.821	64	75765	500.000	ng/mL	-0.08
3) 1,4-Dichlorobenzene-d4	15.418	152	201479	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.821	64	75765	434.498	ng/mL	-0.08
Spiked Amount 500.000	Range 15 - 115		Recovery = 86.90%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.894	88	208792	961.497	ng/mL	99

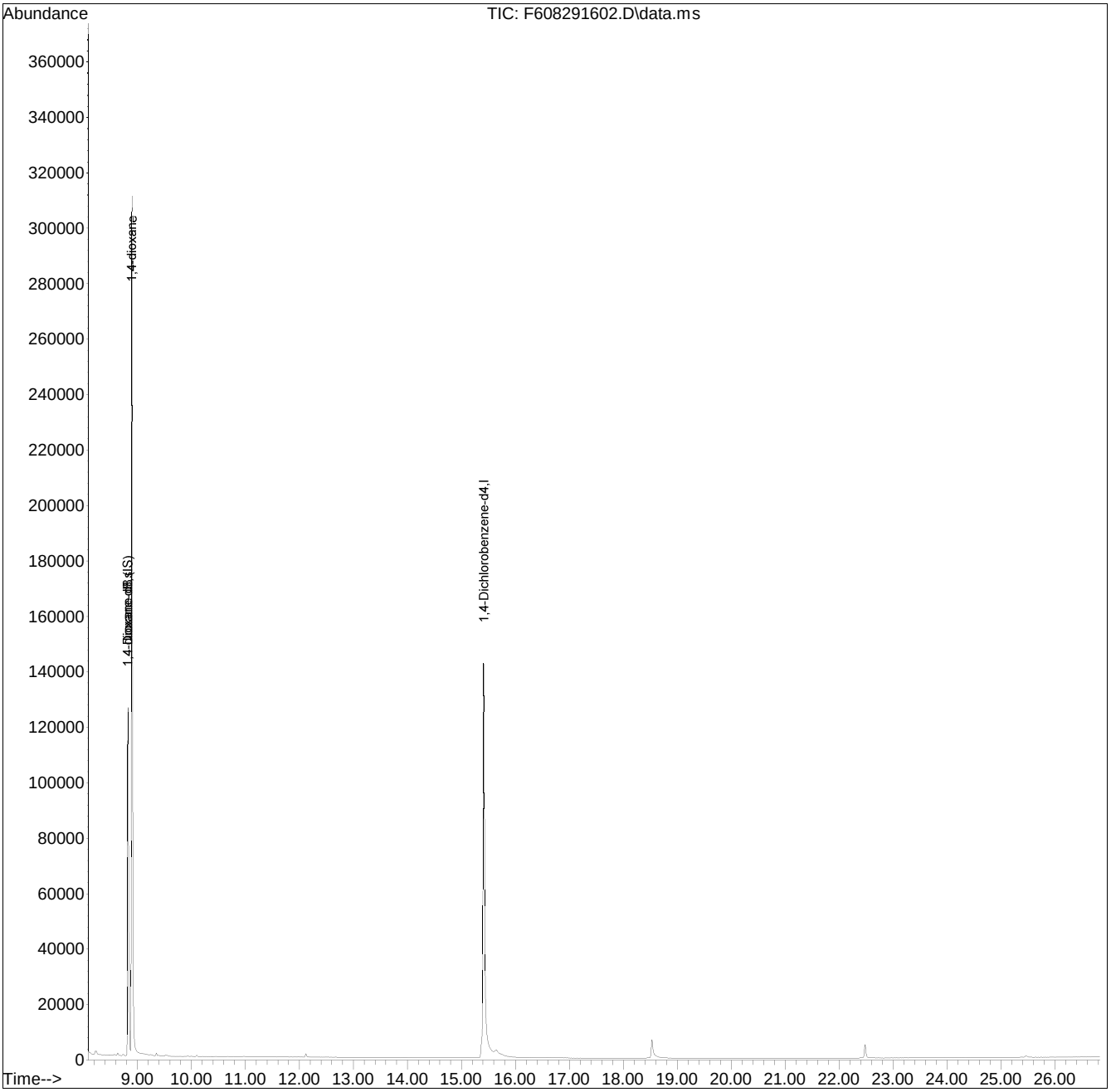
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291602.D
Acq On : 29 Aug 2016 10:00 am
Operator : BNA6:WR
Sample : WG926975-3
Misc : WG926975,MSAK15
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 31 12:51:19 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291606.D
Acq On : 29 Aug 2016 5:13 pm
Operator : BNA6:WR
Sample : L1626817-01
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 31 12:58:03 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.853	64	18185	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	178599	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.853	64	18185	117.648	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.53%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.939	88	261M4	5.008	ng/mL	

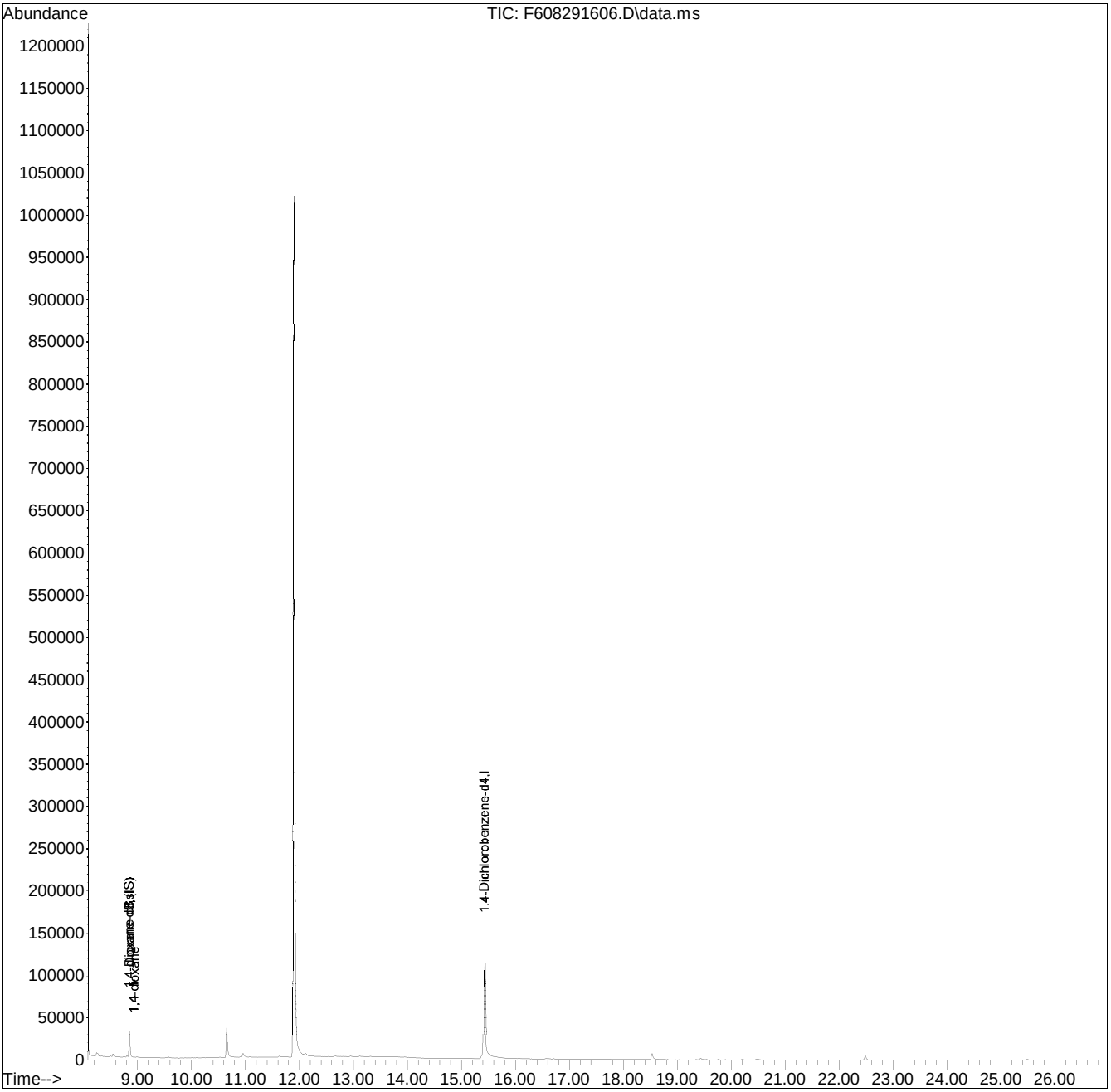
(#) = qualifier out of range (m) = manual integration (+) = signals summed

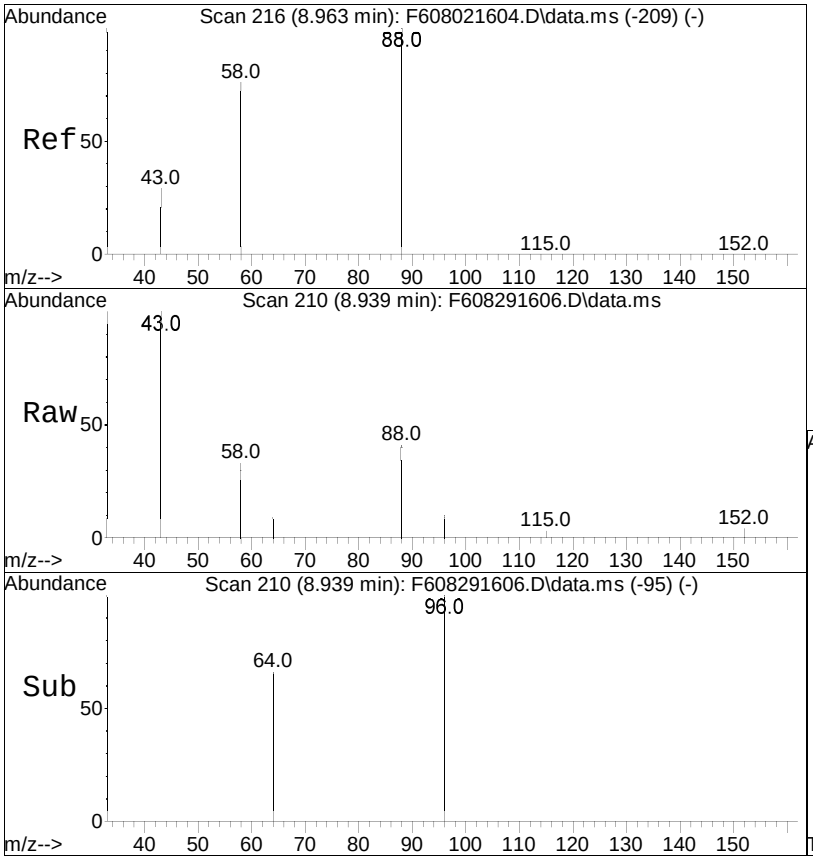
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291606.D
Acq On : 29 Aug 2016 5:13 pm
Operator : BNA6:WR
Sample : L1626817-01
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 31 12:58:03 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

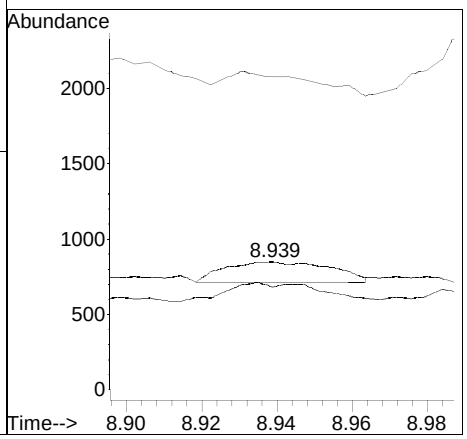




#2
1,4-dioxane
Concen: 5.01 ng/mL M4
RT: 8.939 min Scan# 210
Delta R.T. -0.032 min
Lab File: F608291606.D
Acq: 29 Aug 2016 5:13 pm

Tgt Ion: 88 Resp: 261

Ion	Ratio	Lower	Upper
88	100		
58	41.0	62.1	93.1#
43	94.3	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291607.D
Acq On : 29 Aug 2016 5:57 pm
Operator : BNA6:WR
Sample : L1626817-02
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 31 13:00:04 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.858	64	16807	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	167326M4	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.858	64	16807	116.058	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.21%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.927	88	142594	2960.152	ng/mL	99

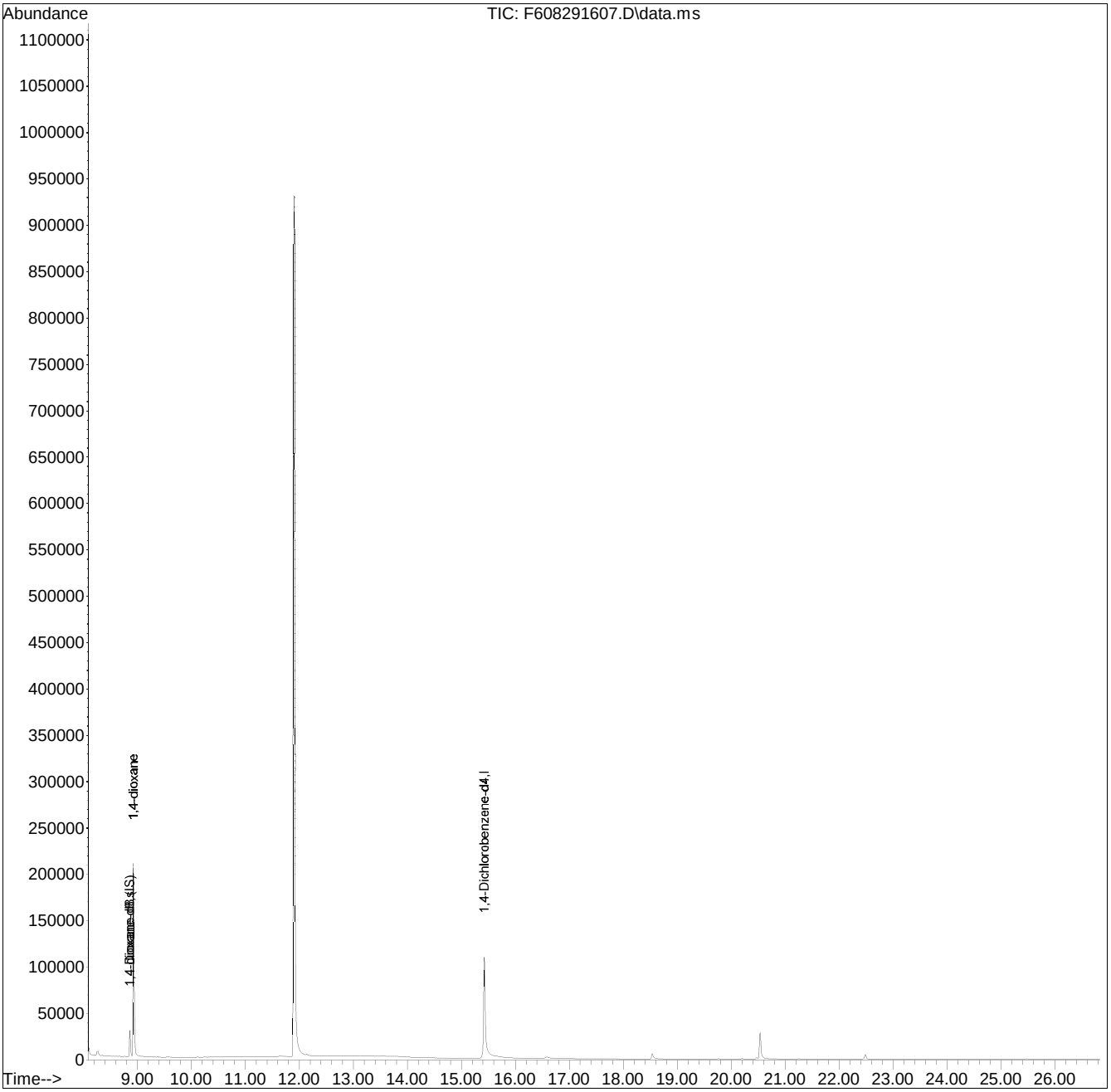
(#) = qualifier out of range (m) = manual integration (+) = signals summed

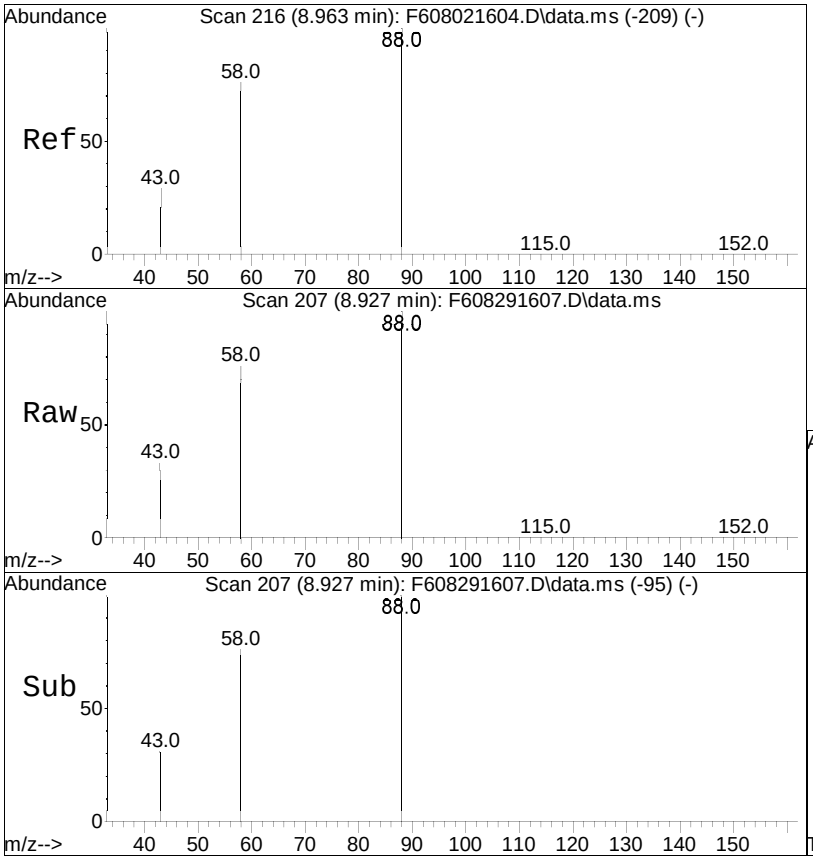
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291607.D
Acq On : 29 Aug 2016 5:57 pm
Operator : BNA6:WR
Sample : L1626817-02
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 31 13:00:04 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

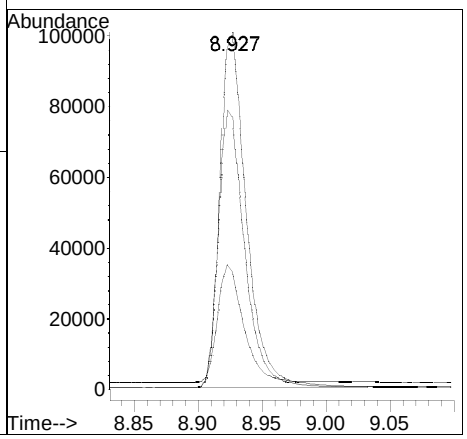




#2
1,4-dioxane
Concen: 2960.15 ng/mL
RT: 8.927 min Scan# 207
Delta R.T. -0.045 min
Lab File: F608291607.D
Acq: 29 Aug 2016 5:57 pm

Tgt Ion: 88 Resp: 142594

Ion	Ratio	Lower	Upper
88	100		
58	78.3	62.1	93.1
43	32.0	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291608.D
Acq On : 29 Aug 2016 6:41 pm
Operator : BNA6:WR
Sample : L1626817-03
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 31 13:01:09 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.861	64	18442	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	154964M4	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.861	64	18442	137.507	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 27.50%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.931	88	144416	2732.186	ng/mL	98

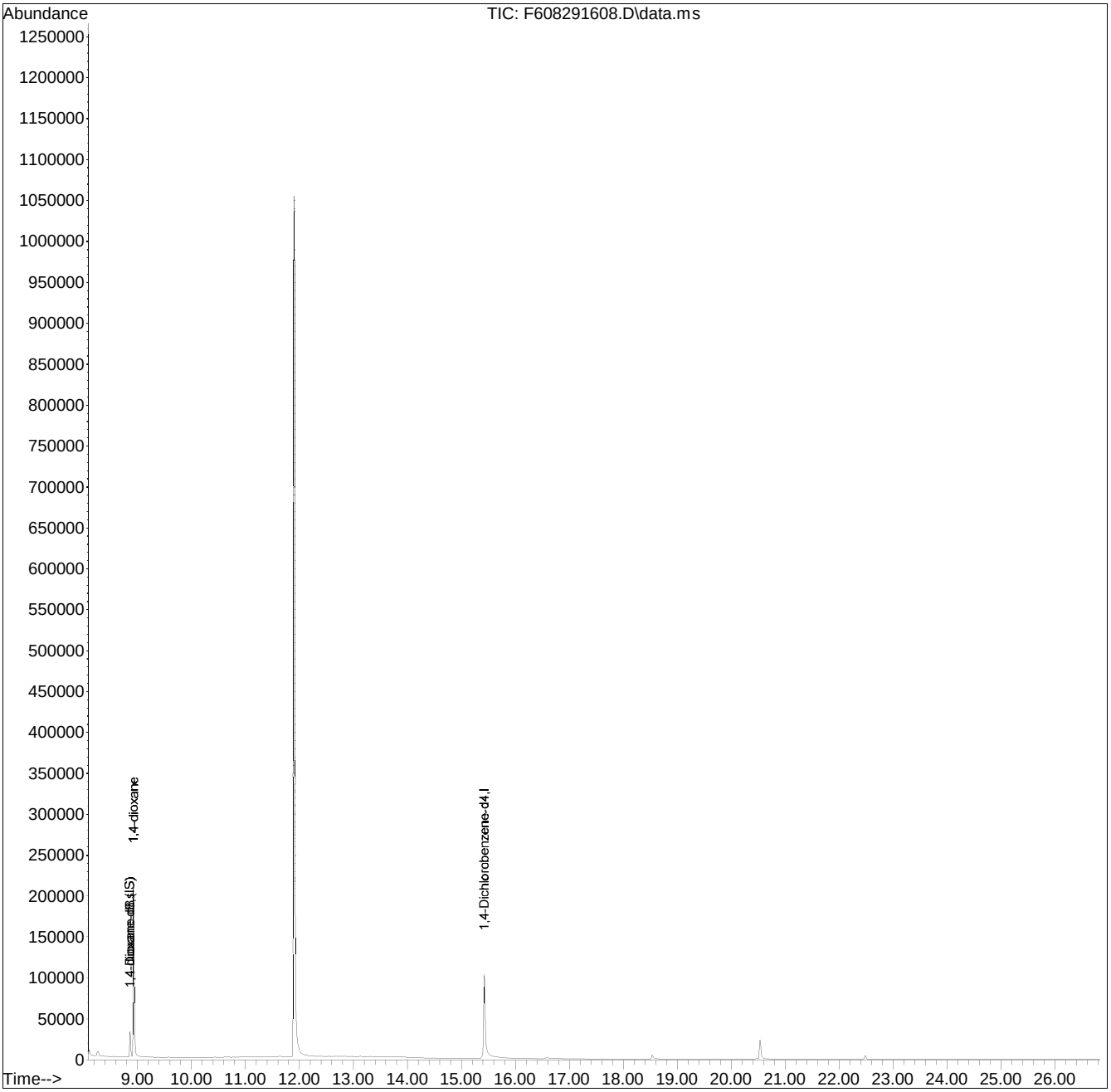
(#) = qualifier out of range (m) = manual integration (+) = signals summed

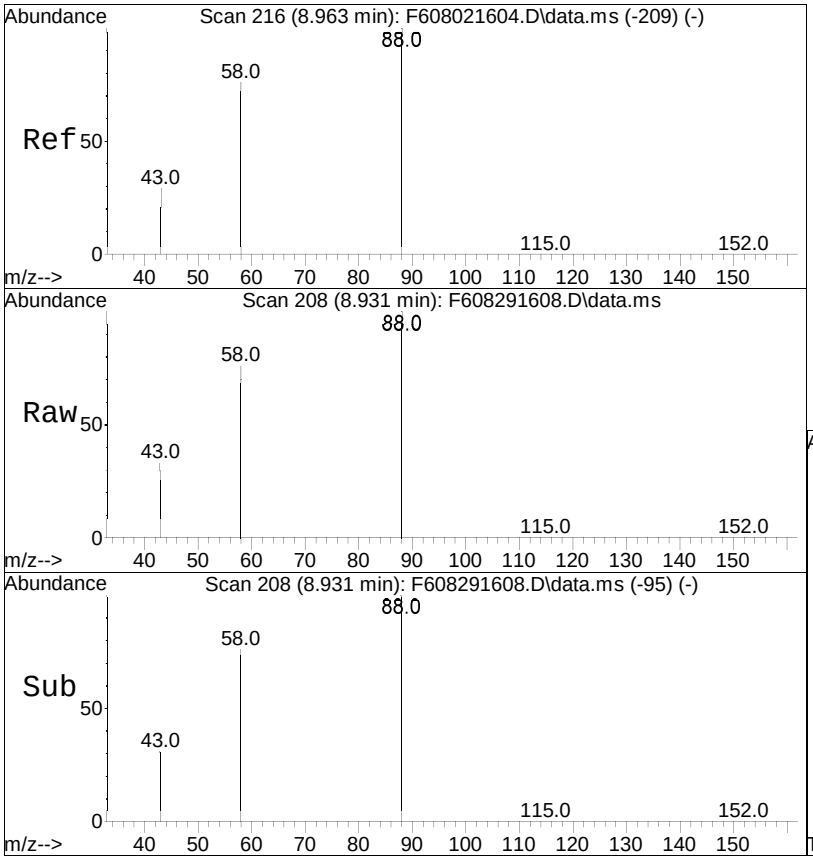
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291608.D
Acq On : 29 Aug 2016 6:41 pm
Operator : BNA6:WR
Sample : L1626817-03
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 31 13:01:09 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

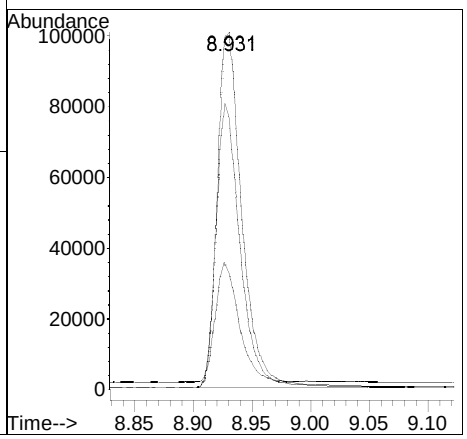




#2
1,4-dioxane
Concen: 2732.19 ng/mL
RT: 8.931 min Scan# 208
Delta R.T. -0.041 min
Lab File: F608291608.D
Acq: 29 Aug 2016 6:41 pm

Tgt Ion: 88 Resp: 144416

Ion	Ratio	Lower	Upper
88	100		
58	78.4	62.1	93.1
43	32.4	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291609.D
Acq On : 29 Aug 2016 7:25 pm
Operator : BNA6:WR
Sample : L1626817-04
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 31 13:01:59 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.858	64	14920	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	179150	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.858	64	14920	96.228	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 19.25%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.939	88	1208M4	28.249	ng/mL	

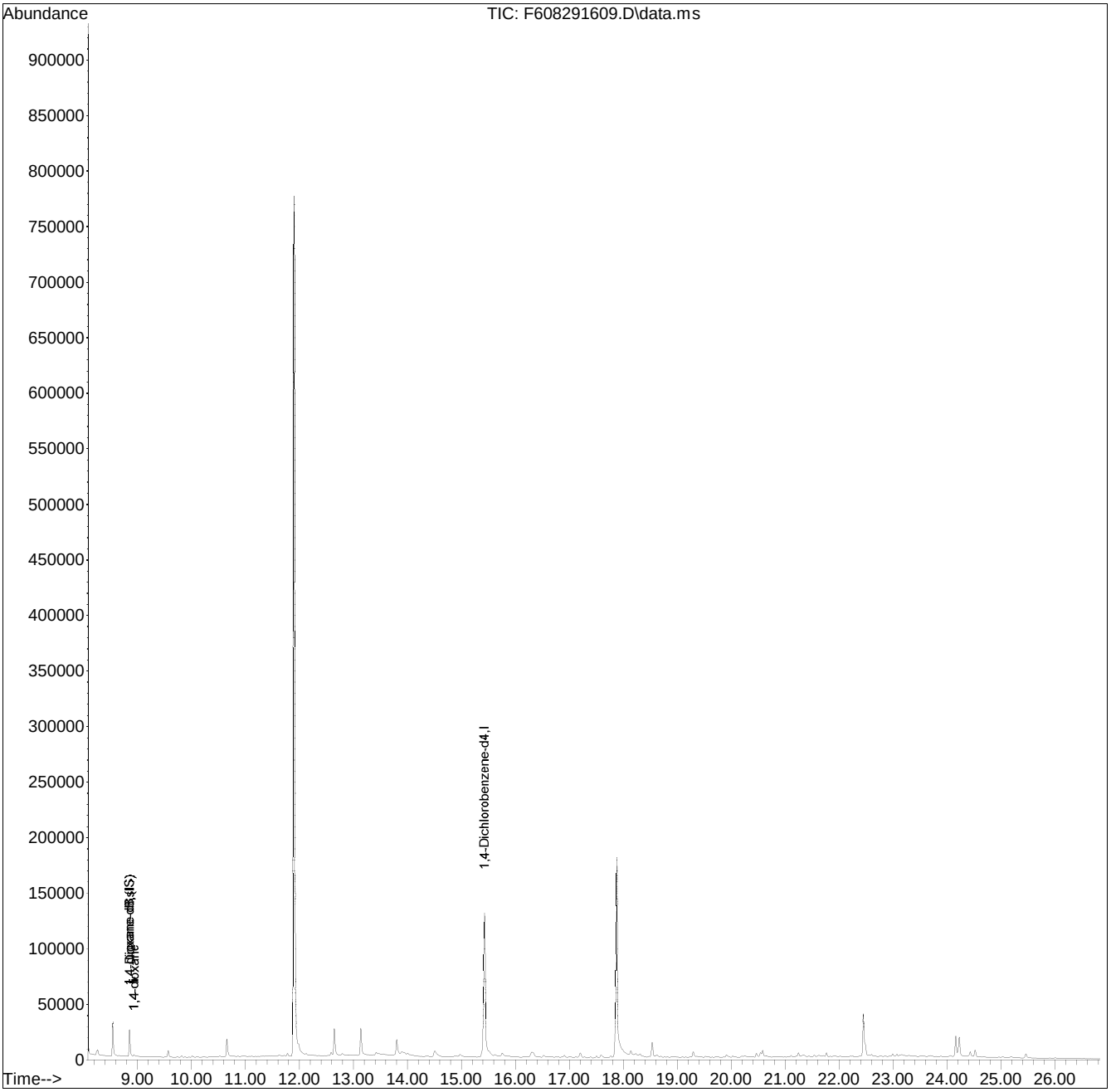
(#) = qualifier out of range (m) = manual integration (+) = signals summed

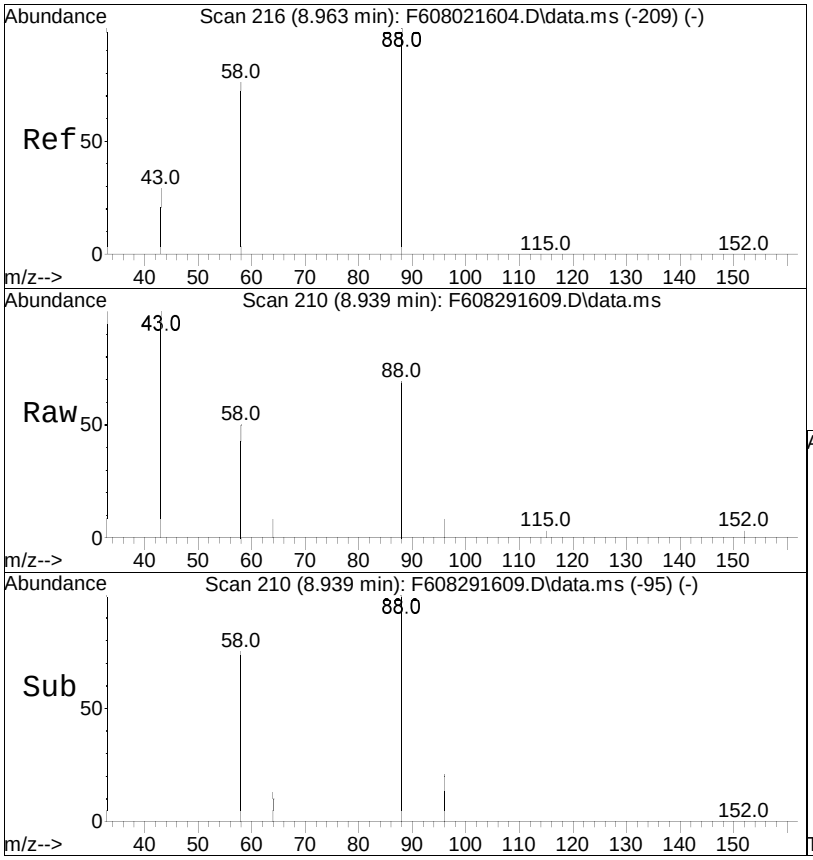
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291609.D
Acq On : 29 Aug 2016 7:25 pm
Operator : BNA6:WR
Sample : L1626817-04
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 31 13:01:59 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

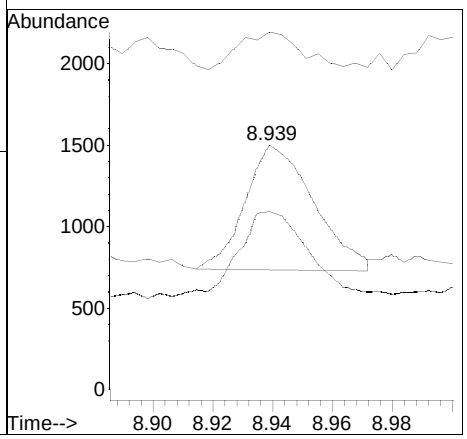




#2
1,4-dioxane
Concen: 28.25 ng/mL M4
RT: 8.939 min Scan# 210
Delta R.T. -0.032 min
Lab File: F608291609.D
Acq: 29 Aug 2016 7:25 pm

Tgt Ion: 88 Resp: 1208

Ion	Ratio	Lower	Upper
88	100		
58	74.4	62.1	93.1
43	0.0	24.4	36.6#



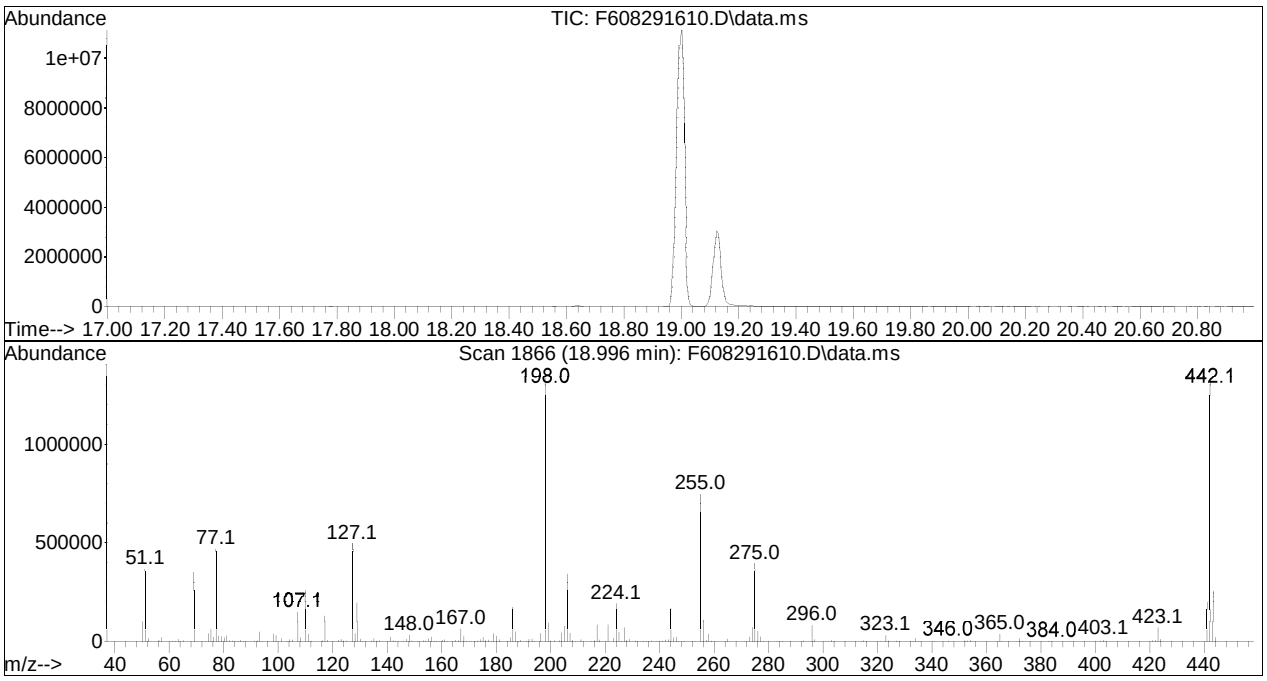
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291610.D
Acq On : 29 Aug 2016 8:05 pm
Operator : BNA6:WR
Sample : WG926975-4
Misc : WG926975,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



Spectrum Information: Scan 1866

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	27.4	366912	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2037	PASS
127	198	10	80	37.0	495232	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1337344	PASS
199	198	5	9	6.9	92224	PASS
275	198	10	60	29.3	392128	PASS
365	198	1	100	2.8	37768	PASS
441	442	0.01	24	14.7	195392	PASS
442	198	50	100	99.4	1329664	PASS
443	442	15	24	19.0	252992	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291611.D
Acq On : 29 Aug 2016 9:01 pm
Operator : BNA6:WR
Sample : WG926975-6
Misc : WG926975,MSAK46
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 31 12:51:37 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	86	-0.08
2	1,4-dioxane	1.433	1.377	3.9	80	-0.08
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	91	-0.09
4 s	1,4-dioxane-d8	0.433	0.391	9.7	84	-0.08

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291611.D
Acq On : 29 Aug 2016 9:01 pm
Operator : BNA6:WR
Sample : WG926975-6
Misc : WG926975,MSAK46
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 31 12:51:37 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.821	64	71667	500.000	ng/mL	-0.08
3) 1,4-Dichlorobenzene-d4	15.422	152	183115	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.821	64	71667	452.214	ng/mL	-0.08
Spiked Amount 500.000	Range 15 - 115		Recovery = 90.44%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.894	88	197437	961.197	ng/mL	99

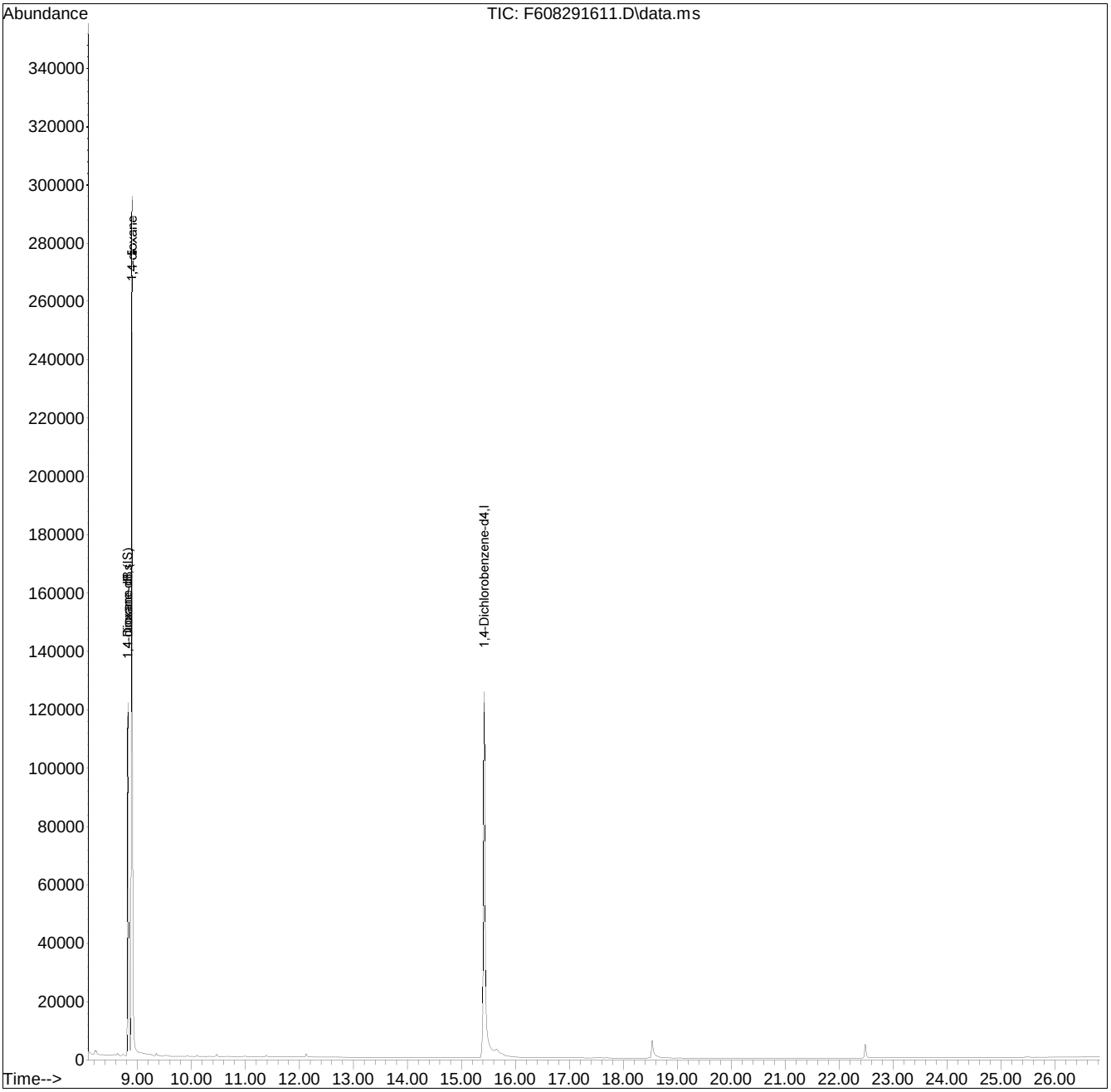
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291611.D
Acq On : 29 Aug 2016 9:01 pm
Operator : BNA6:WR
Sample : WG926975-6
Misc : WG926975,MSAK46
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 31 12:51:37 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291612.D
Acq On : 29 Aug 2016 9:45 pm
Operator : BNA6:WR
Sample : L1626817-05
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 31 13:04:03 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.866	64	13910	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	180016	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.866	64	13910	89.282	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 17.86%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.947	88	854M4	21.421	ng/mL	

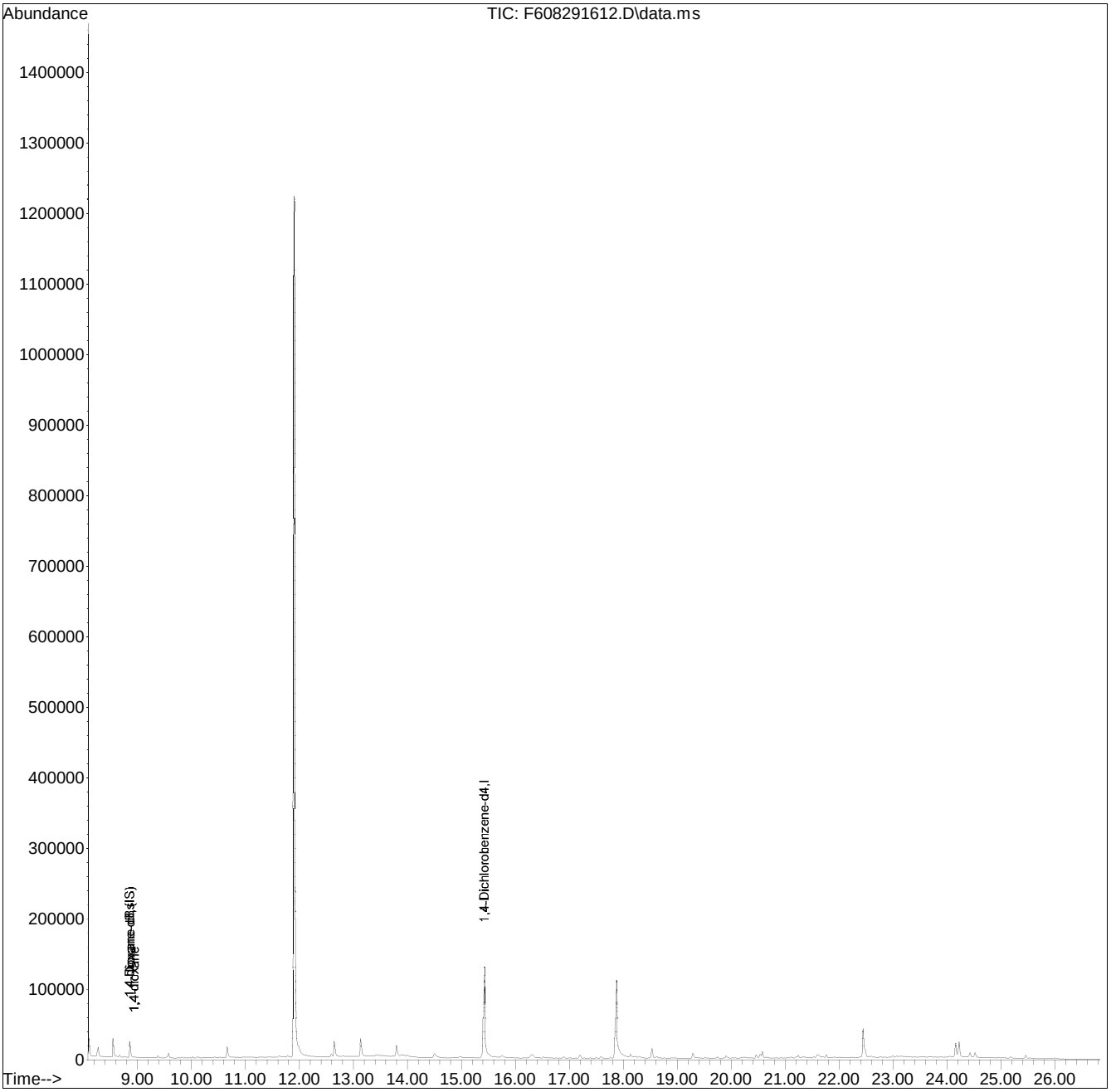
(#) = qualifier out of range (m) = manual integration (+) = signals summed

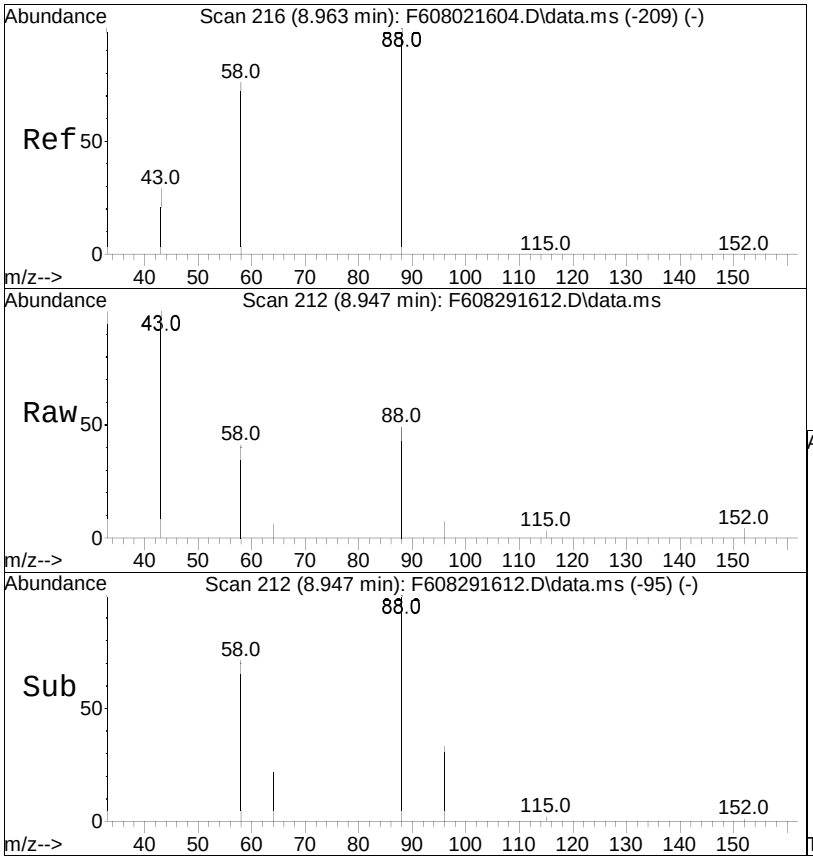
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291612.D
Acq On : 29 Aug 2016 9:45 pm
Operator : BNA6:WR
Sample : L1626817-05
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 31 13:04:03 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

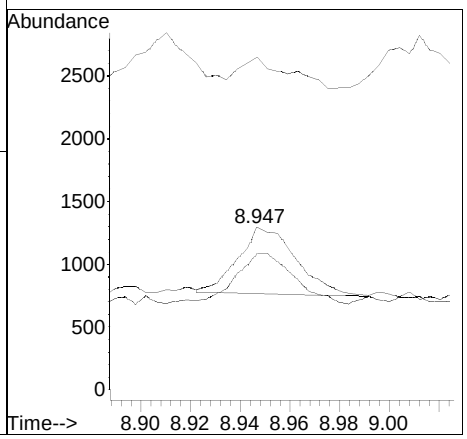




#2
1,4-dioxane
Concen: 21.42 ng/mL M4
RT: 8.947 min Scan# 212
Delta R.T. -0.024 min
Lab File: F608291612.D
Acq: 29 Aug 2016 9:45 pm

Tgt Ion: 88 Resp: 854

Ion	Ratio	Lower	Upper
88	100		
58	80.0	62.1	93.1
43	0.0	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291614.D
Acq On : 29 Aug 2016 11:12 pm
Operator : BNA6:WR
Sample : L1626817-06
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 31 13:05:22 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.862	64	15687	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	182109	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.862	64	15687	99.531	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 19.91%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.947	88	967M4	21.507	ng/mL	

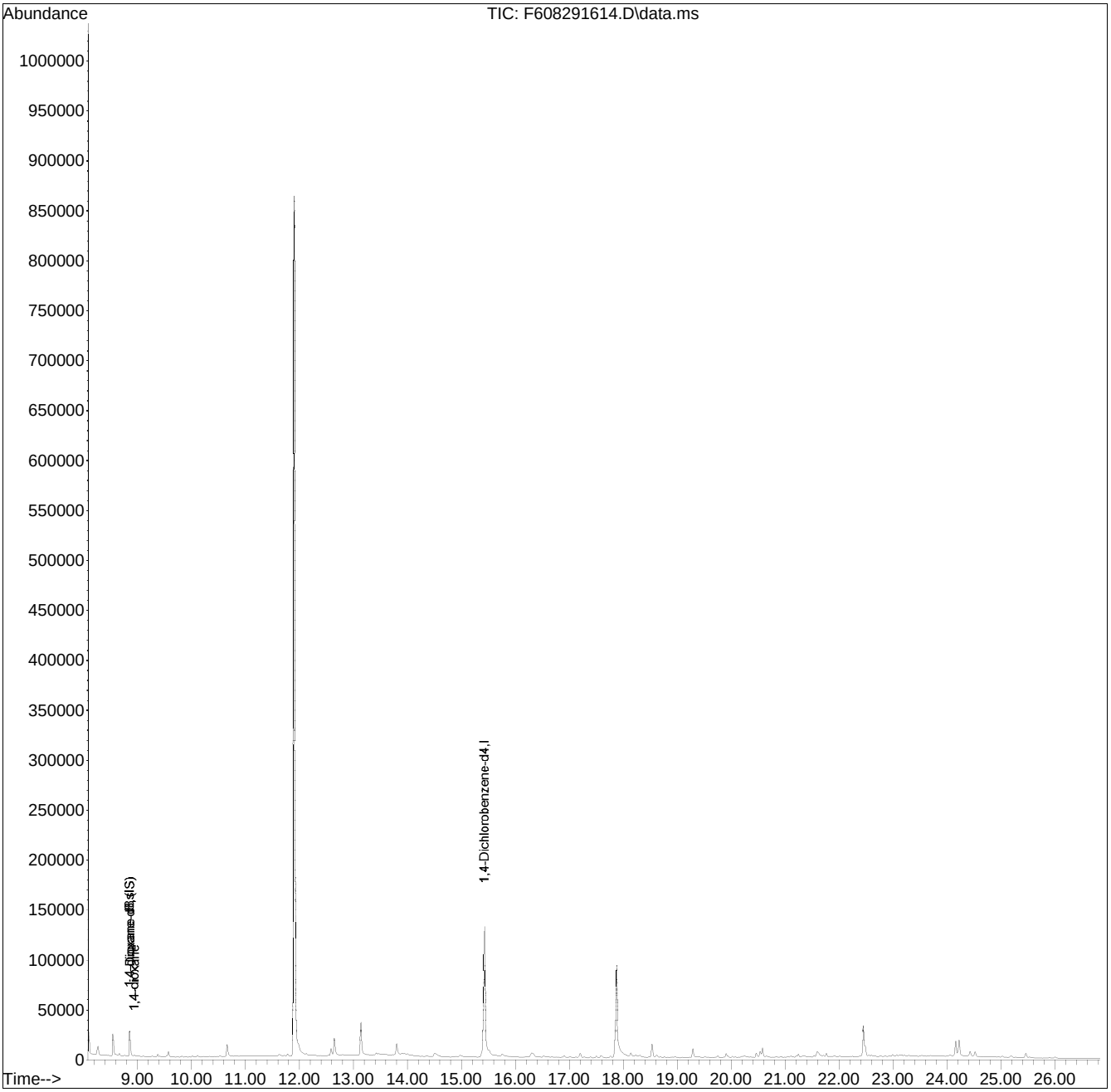
(#) = qualifier out of range (m) = manual integration (+) = signals summed

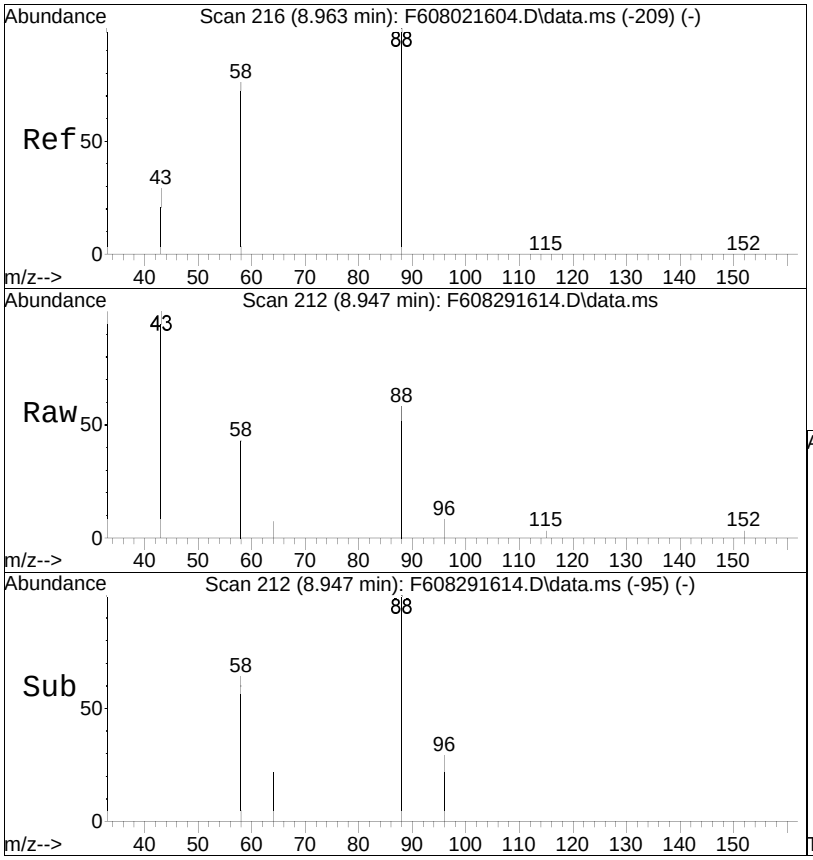
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291614.D
Acq On : 29 Aug 2016 11:12 pm
Operator : BNA6:WR
Sample : L1626817-06
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 31 13:05:22 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

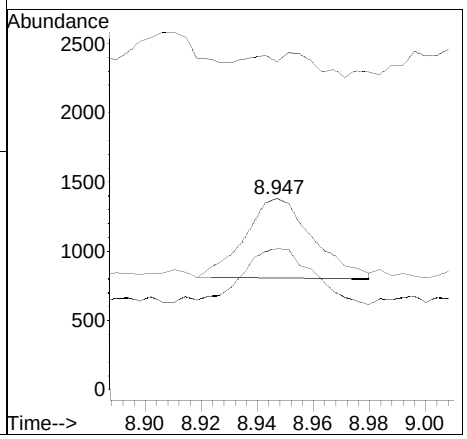




#2
1,4-dioxane
Concen: 21.51 ng/mL M4
RT: 8.947 min Scan# 212
Delta R.T. -0.024 min
Lab File: F608291614.D
Acq: 29 Aug 2016 11:12 pm

Tgt Ion: 88 Resp: 967

Ion	Ratio	Lower	Upper
88	100		
58	72.0	62.1	93.1
43	0.0	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291616.D
Acq On : 30 Aug 2016 12:40 am
Operator : BNA6:WR
Sample : L1626817-07
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 31 13:07:13 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

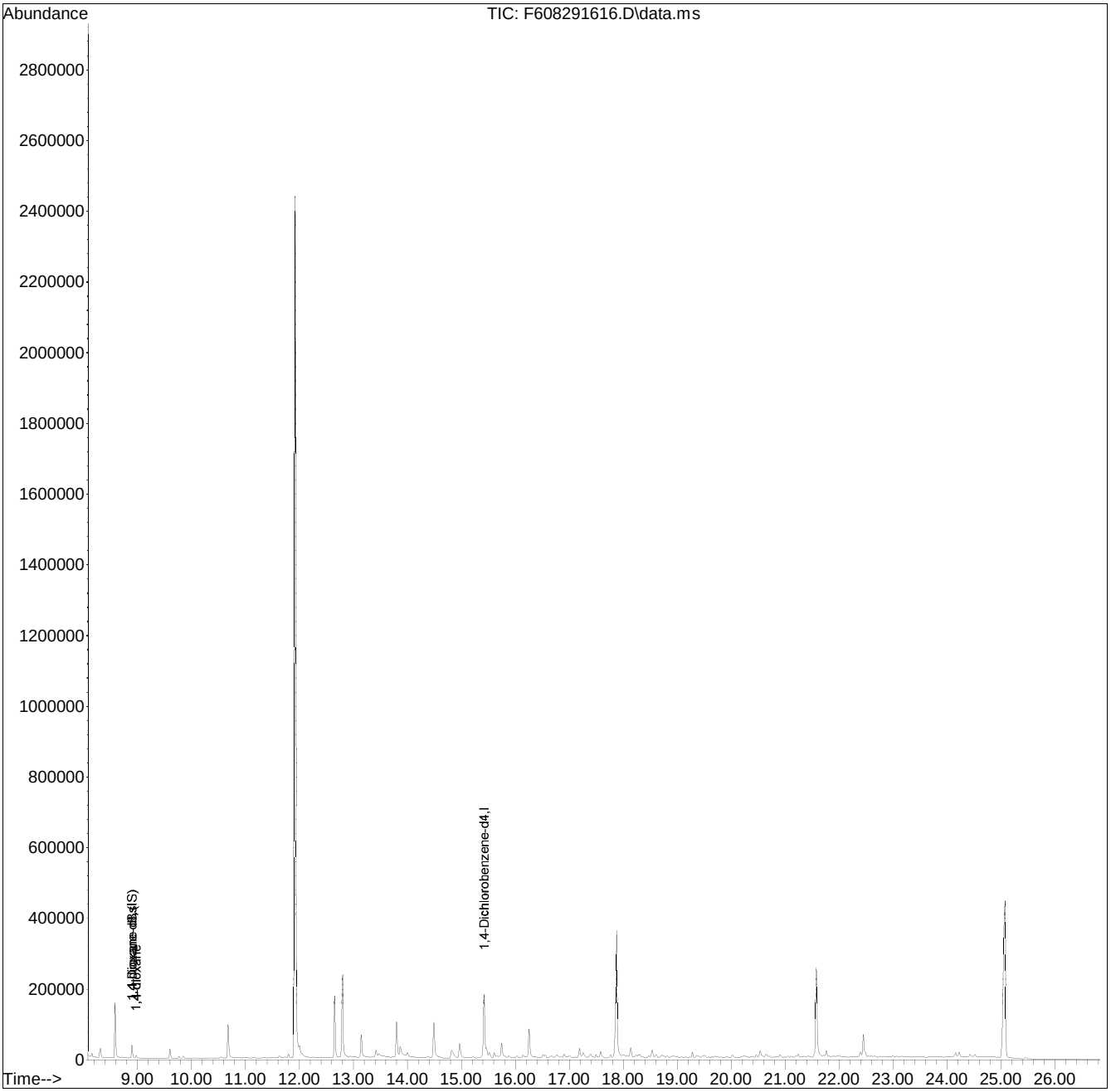
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.902	64	22584	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.422	152	216614	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.902	64	22584	120.466	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.09%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.980	88	5676M4	87.689	ng/mL	

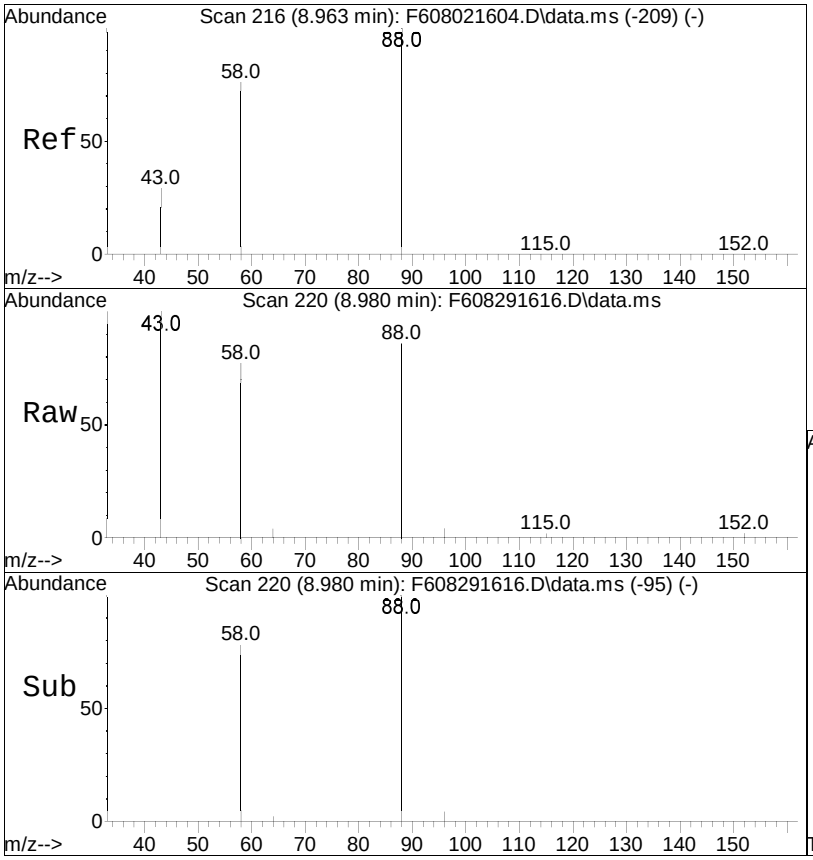
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291616.D
Acq On : 30 Aug 2016 12:40 am
Operator : BNA6:WR
Sample : L1626817-07
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 31 13:07:13 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

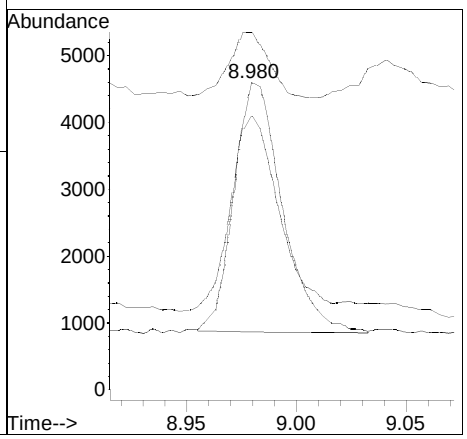




#2
1,4-dioxane
Concen: 87.69 ng/mL M4
RT: 8.980 min Scan# 220
Delta R.T. 0.008 min
Lab File: F608291616.D
Acq: 30 Aug 2016 12:40 am

Tgt Ion: 88 Resp: 5676

Ion	Ratio	Lower	Upper
88	100		
58	78.1	62.1	93.1
43	0.0	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291617.D
Acq On : 30 Aug 2016 1:23 am
Operator : BNA6:WR
Sample : L1626817-08
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 31 13:07:45 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.870	64	22425	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	181725	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.870	64	22425	142.583	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 28.52%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	177M4	2.754	ng/mL	

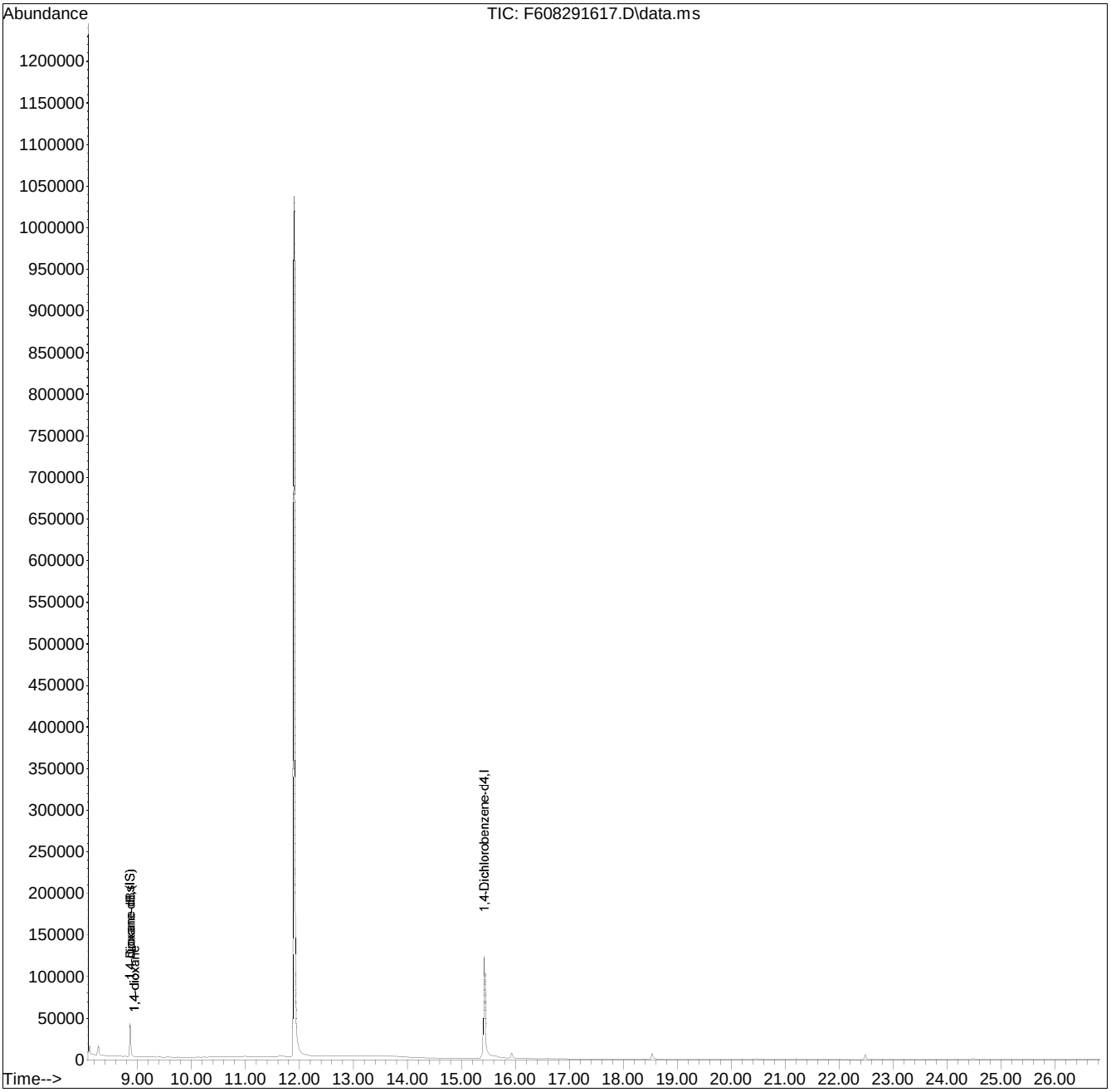
(#) = qualifier out of range (m) = manual integration (+) = signals summed

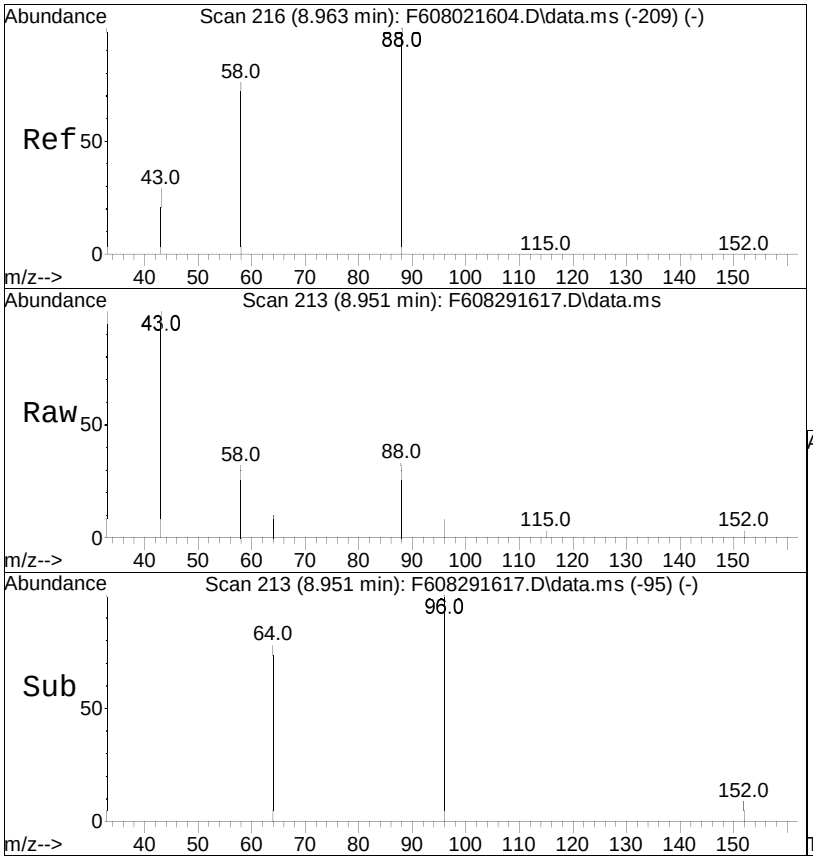
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291617.D
Acq On : 30 Aug 2016 1:23 am
Operator : BNA6:WR
Sample : L1626817-08
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 31 13:07:45 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

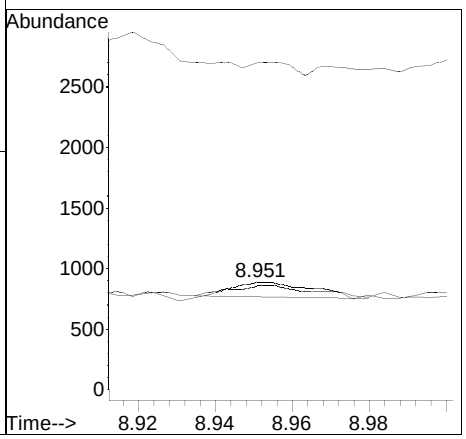




#2
1,4-dioxane
Concen: 2.75 ng/mL M4
RT: 8.951 min Scan# 213
Delta R.T. -0.020 min
Lab File: F608291617.D
Acq: 30 Aug 2016 1:23 am

Tgt Ion: 88 Resp: 177

Ion	Ratio	Lower	Upper
88	100		
58	88.7	62.1	93.1
43	42.4	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291618.D
Acq On : 30 Aug 2016 2:07 am
Operator : BNA6:WR
Sample : L1626817-09
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 31 13:09:19 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.862	64	21973	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	180701	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.862	64	21973	140.500	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 28.10%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

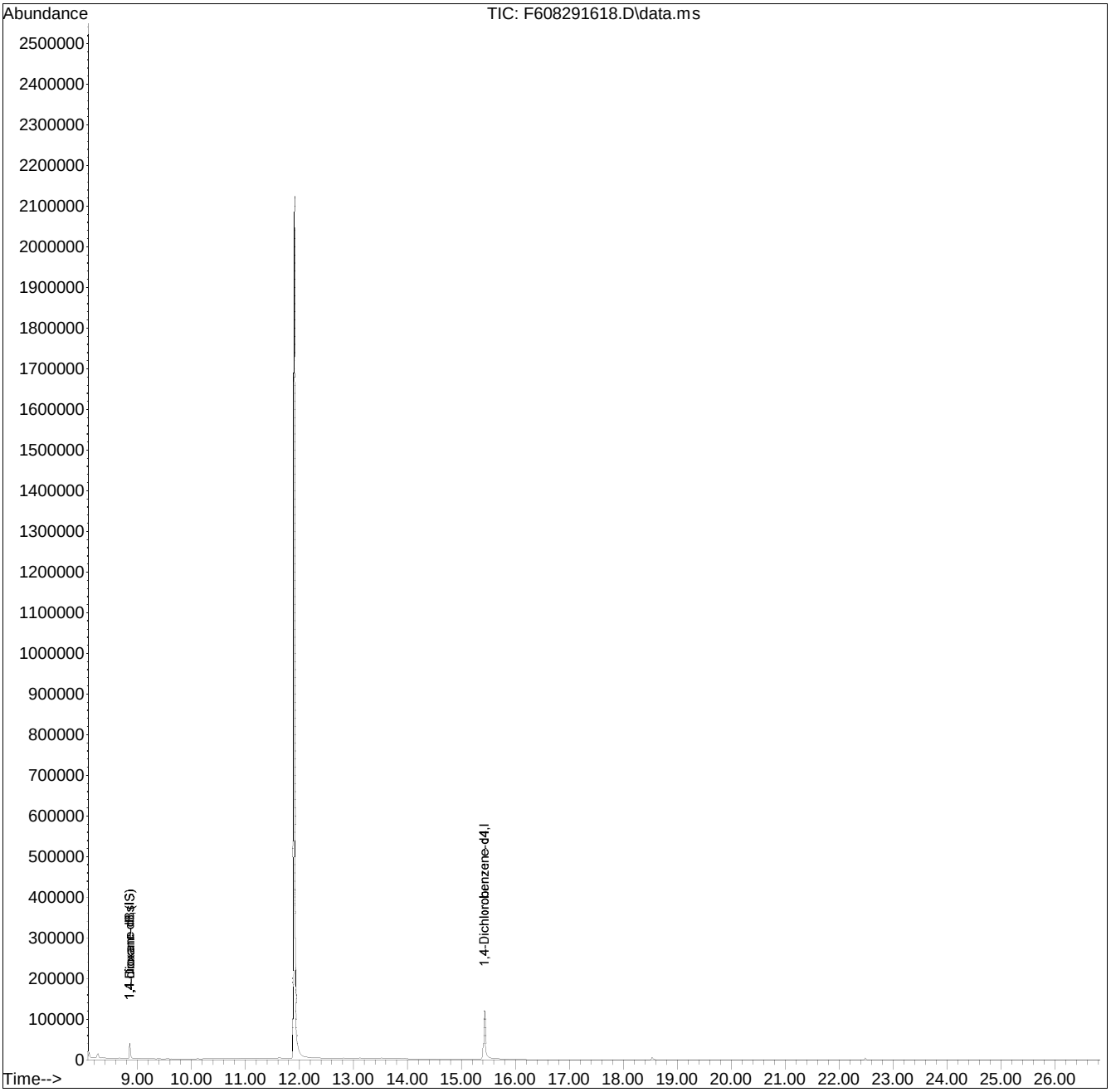
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291618.D
Acq On : 30 Aug 2016 2:07 am
Operator : BNA6:WR
Sample : L1626817-09
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 31 13:09:19 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291619.D
Acq On : 30 Aug 2016 2:51 am
Operator : BNA6:WR
Sample : L1626817-10
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 31 13:09:48 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

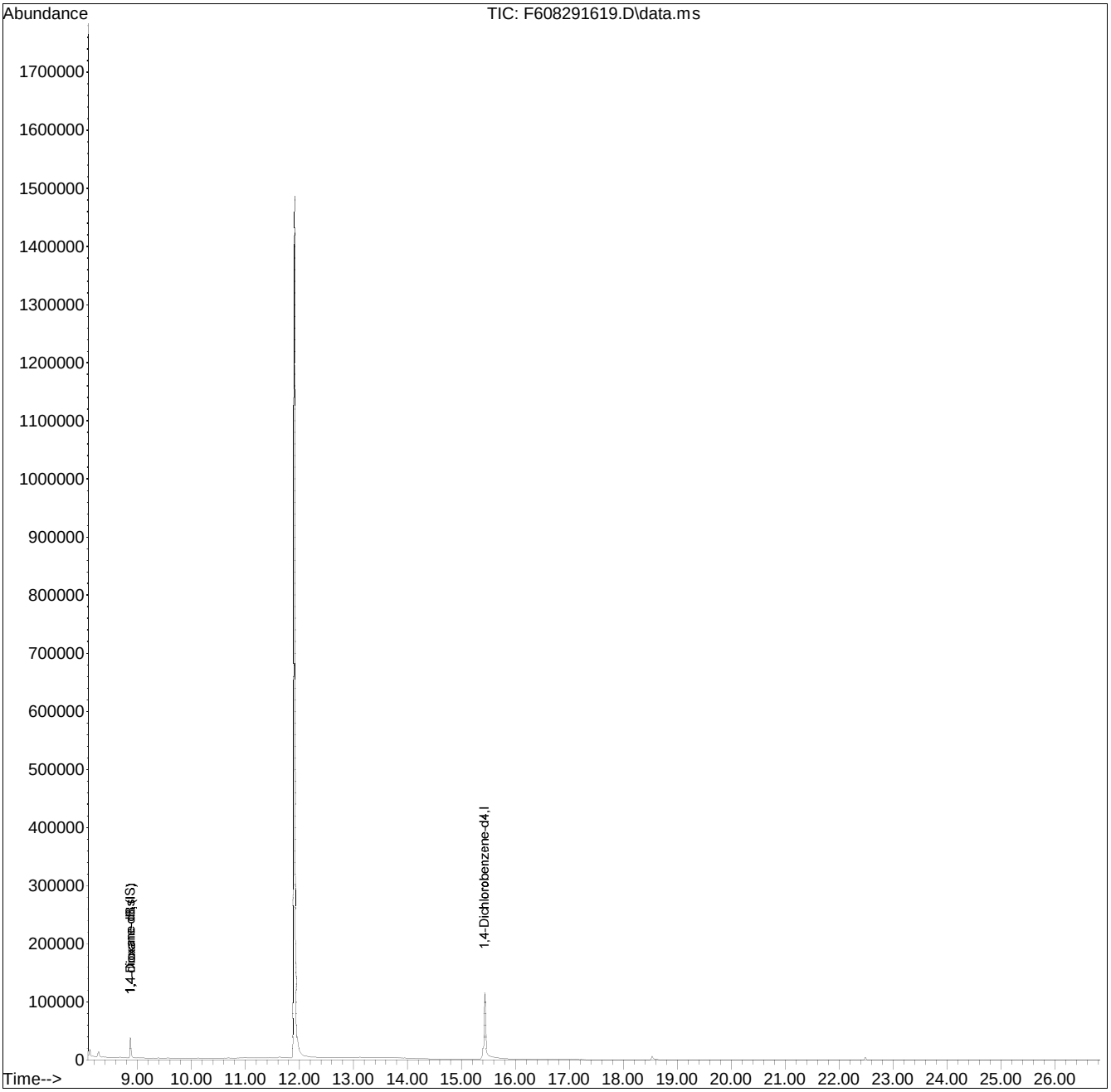
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.874	64	20848	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.422	152	175351	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.874	64	20848	137.374	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 27.47%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291619.D
Acq On : 30 Aug 2016 2:51 am
Operator : BNA6:WR
Sample : L1626817-10
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Aug 31 13:09:48 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Batch Quality Control

Method Blank
Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291603.D
Acq On : 29 Aug 2016 3:00 pm
Operator : BNA6:WR
Sample : WG926574-1
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 31 12:56:05 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.866	64	22314	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.414	152	184615	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.866	64	22314	139.656	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 27.93%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	490M4	7.662	ng/mL	

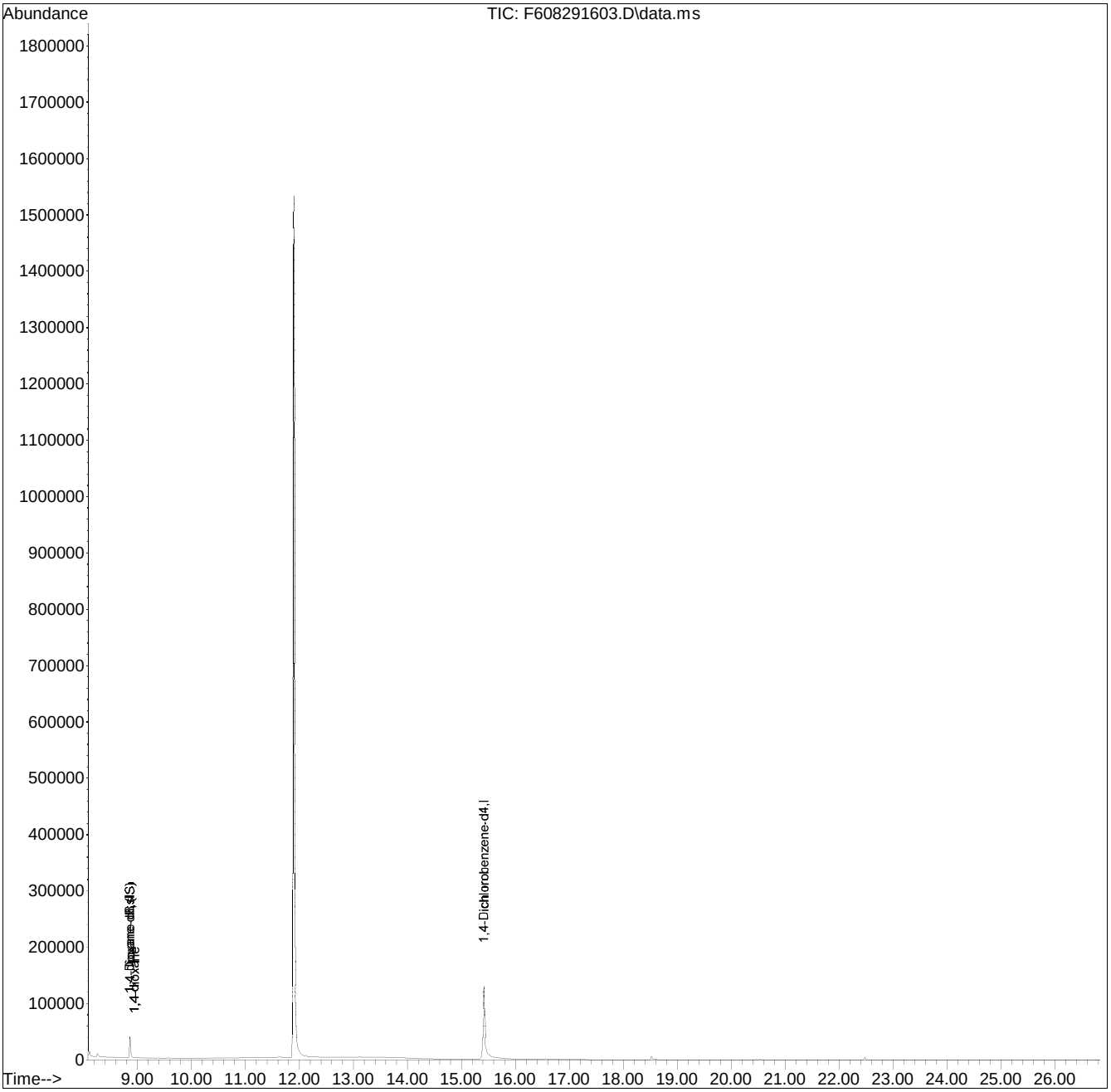
(#) = qualifier out of range (m) = manual integration (+) = signals summed

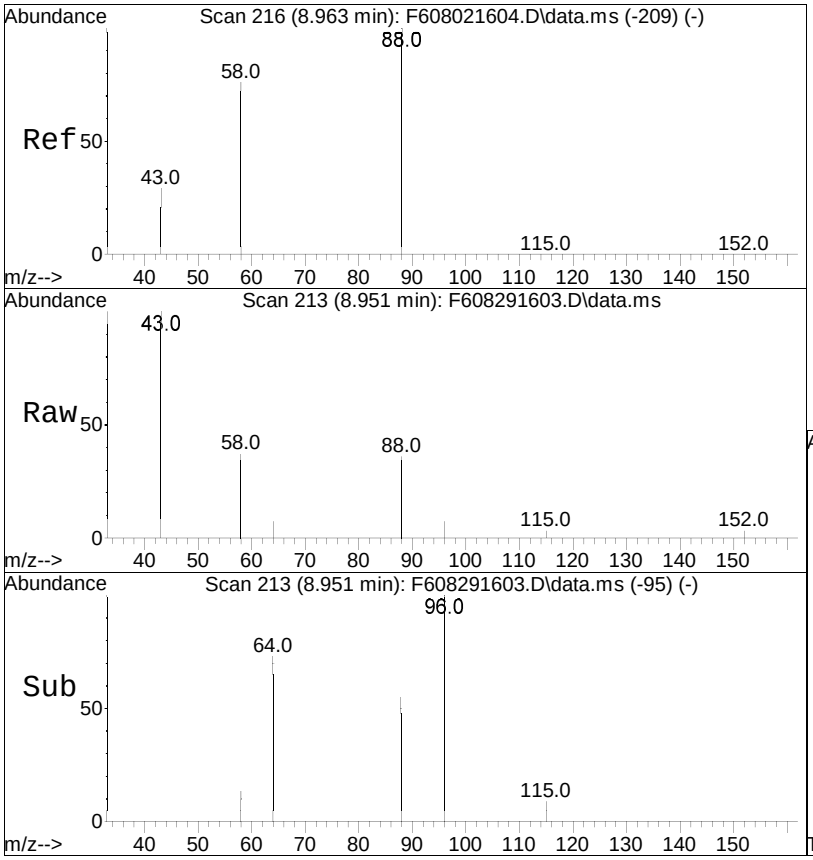
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291603.D
Acq On : 29 Aug 2016 3:00 pm
Operator : BNA6:WR
Sample : WG926574-1
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 31 12:56:05 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

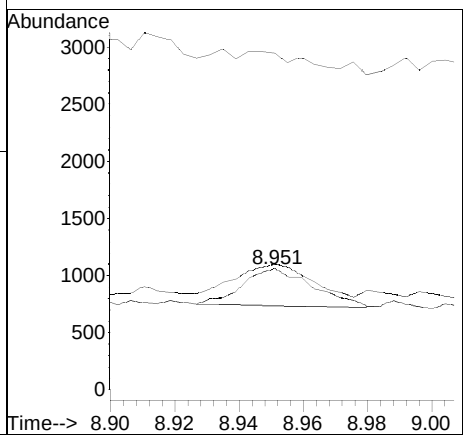




#2
1,4-dioxane
Concen: 7.66 ng/mL M4
RT: 8.951 min Scan# 213
Delta R.T. -0.020 min
Lab File: F608291603.D
Acq: 29 Aug 2016 3:00 pm

Tgt Ion: 88 Resp: 490

Ion	Ratio	Lower	Upper
88	100		
58	92.2	62.1	93.1
43	14.7	24.4	36.6#



LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291604.D
Acq On : 29 Aug 2016 3:44 pm
Operator : BNA6:WR
Sample : WG926574-2
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 12:51:23 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.874	64	19857	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.422	152	183267	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.874	64	19857	125.192	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.04%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	31128	546.941	ng/mL	98

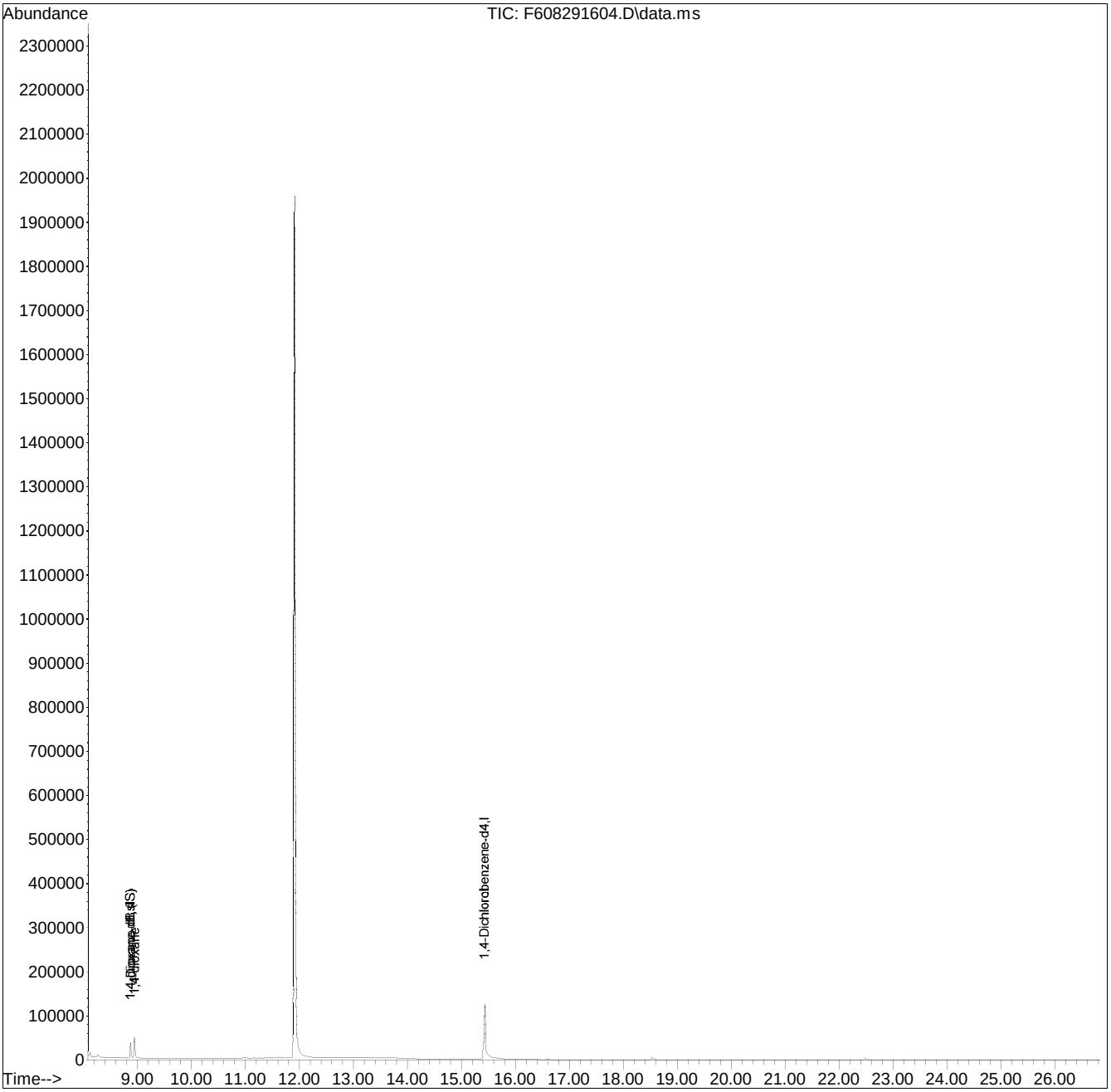
(#) = qualifier out of range (m) = manual integration (+) = signals summed

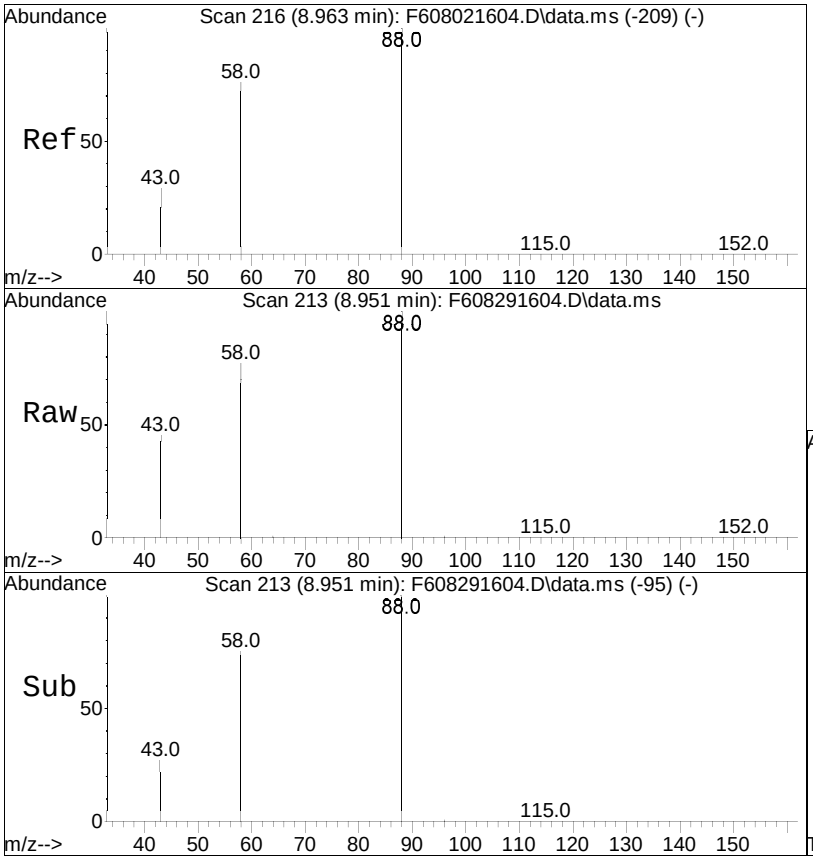
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291604.D
Acq On : 29 Aug 2016 3:44 pm
Operator : BNA6:WR
Sample : WG926574-2
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 12:51:23 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

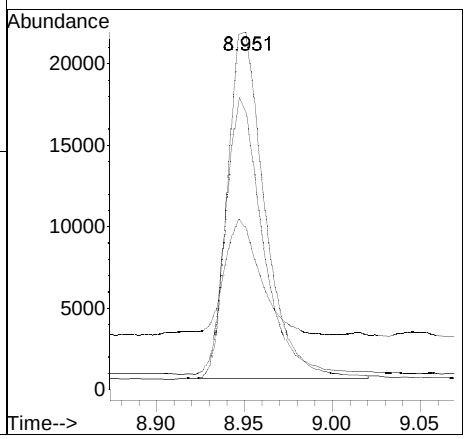




#2
1,4-dioxane
Concen: 546.94 ng/mL
RT: 8.951 min Scan# 213
Delta R.T. -0.020 min
Lab File: F608291604.D
Acq: 29 Aug 2016 3:44 pm

Tgt Ion: 88 Resp: 31128

Ion	Ratio	Lower	Upper
88	100		
58	79.2	62.1	93.1
43	32.1	24.4	36.6



LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291605.D
Acq On : 29 Aug 2016 4:29 pm
Operator : BNA6:WR
Sample : WG926574-3
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 31 12:51:25 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	19960	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.426	152	173297	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	19960	133.082	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 26.62%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.971	88	31114	543.874	ng/mL	98

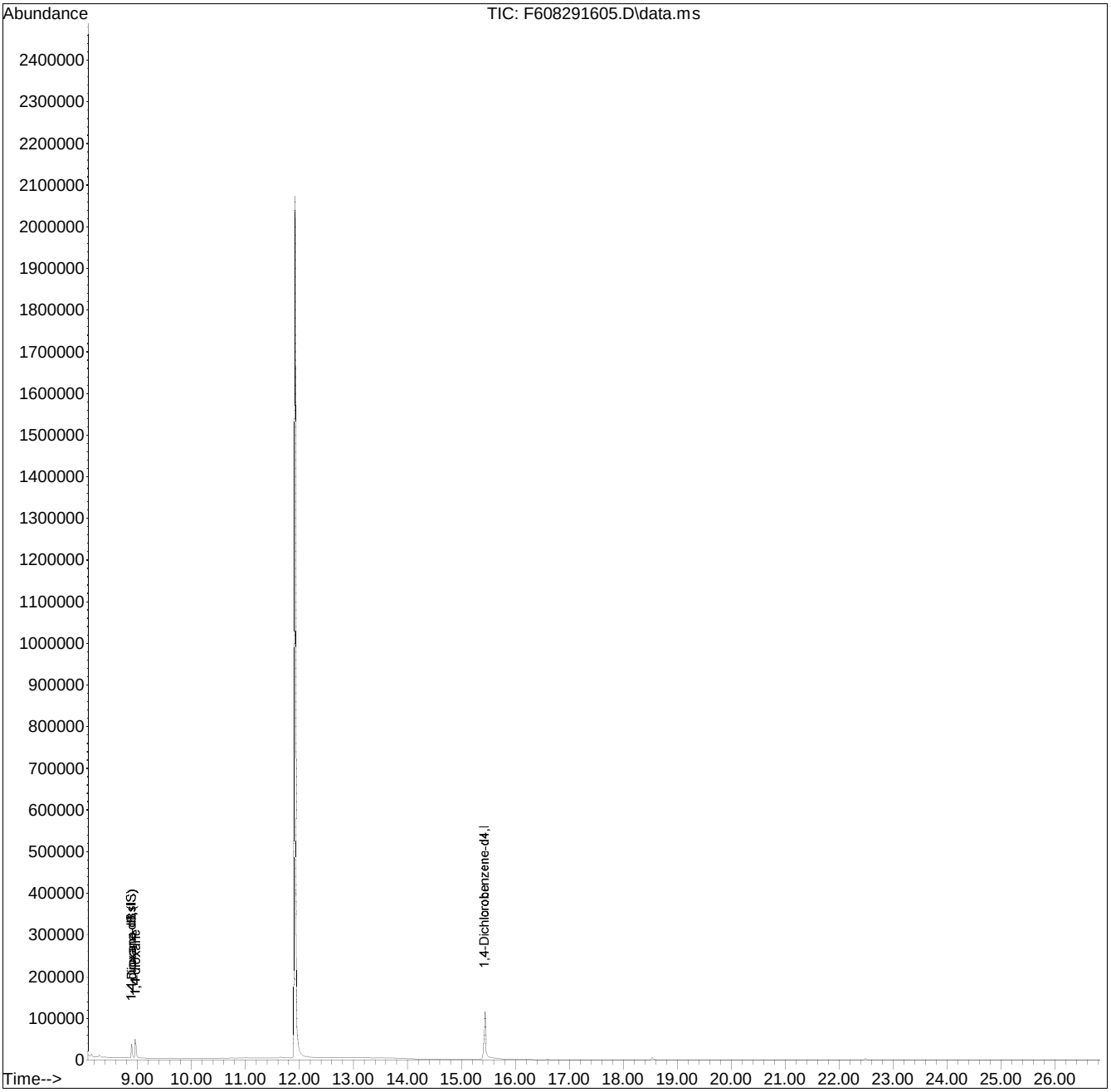
(#) = qualifier out of range (m) = manual integration (+) = signals summed

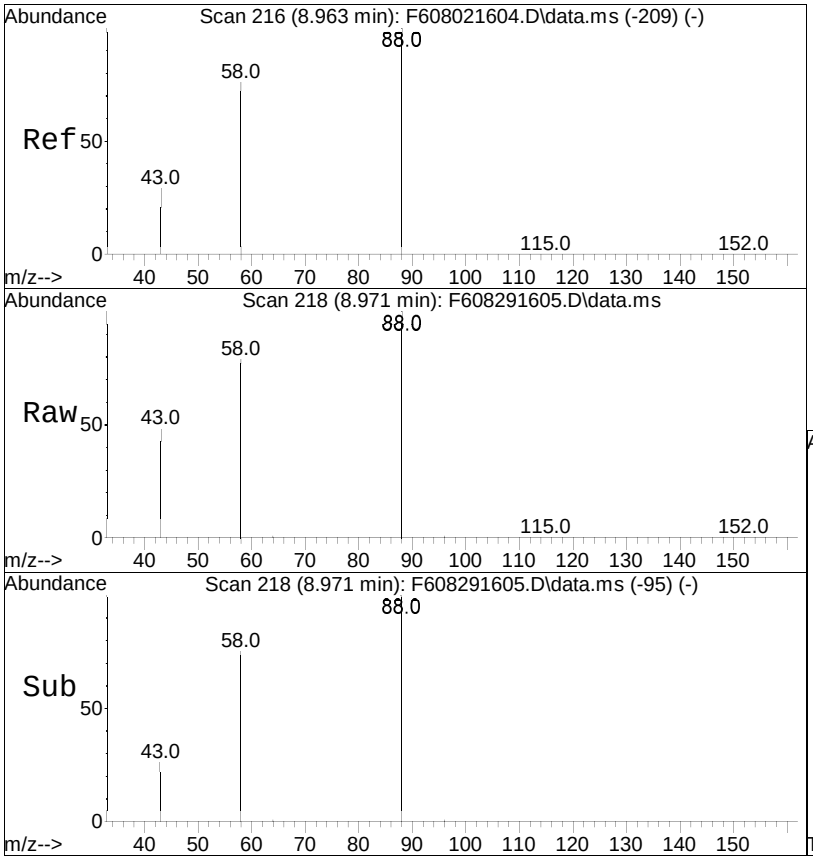
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291605.D
Acq On : 29 Aug 2016 4:29 pm
Operator : BNA6:WR
Sample : WG926574-3
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 31 12:51:25 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

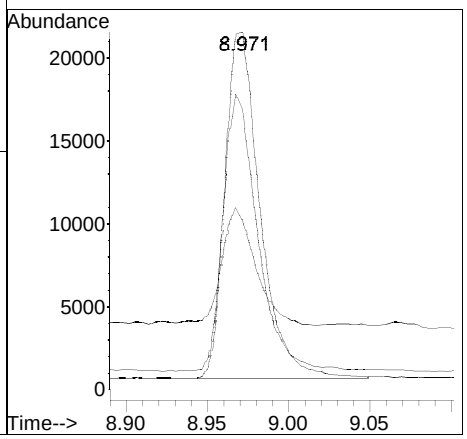




#2
1,4-dioxane
Concen: 543.87 ng/mL
RT: 8.971 min Scan# 218
Delta R.T. 0.000 min
Lab File: F608291605.D
Acq: 29 Aug 2016 4:29 pm

Tgt Ion: 88 Resp: 31114

Ion	Ratio	Lower	Upper
88	100		
58	77.3	62.1	93.1
43	32.9	24.4	36.6



Matrix Spike / Matrix Spike Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291613.D
Acq On : 29 Aug 2016 10:29 pm
Operator : BNA6:WR
Sample : WG926574-4
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 31 12:51:41 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.870	64	13764	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	174868	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.870	64	13764	90.946	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 18.19%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.943	88	22953	581.832	ng/mL	98

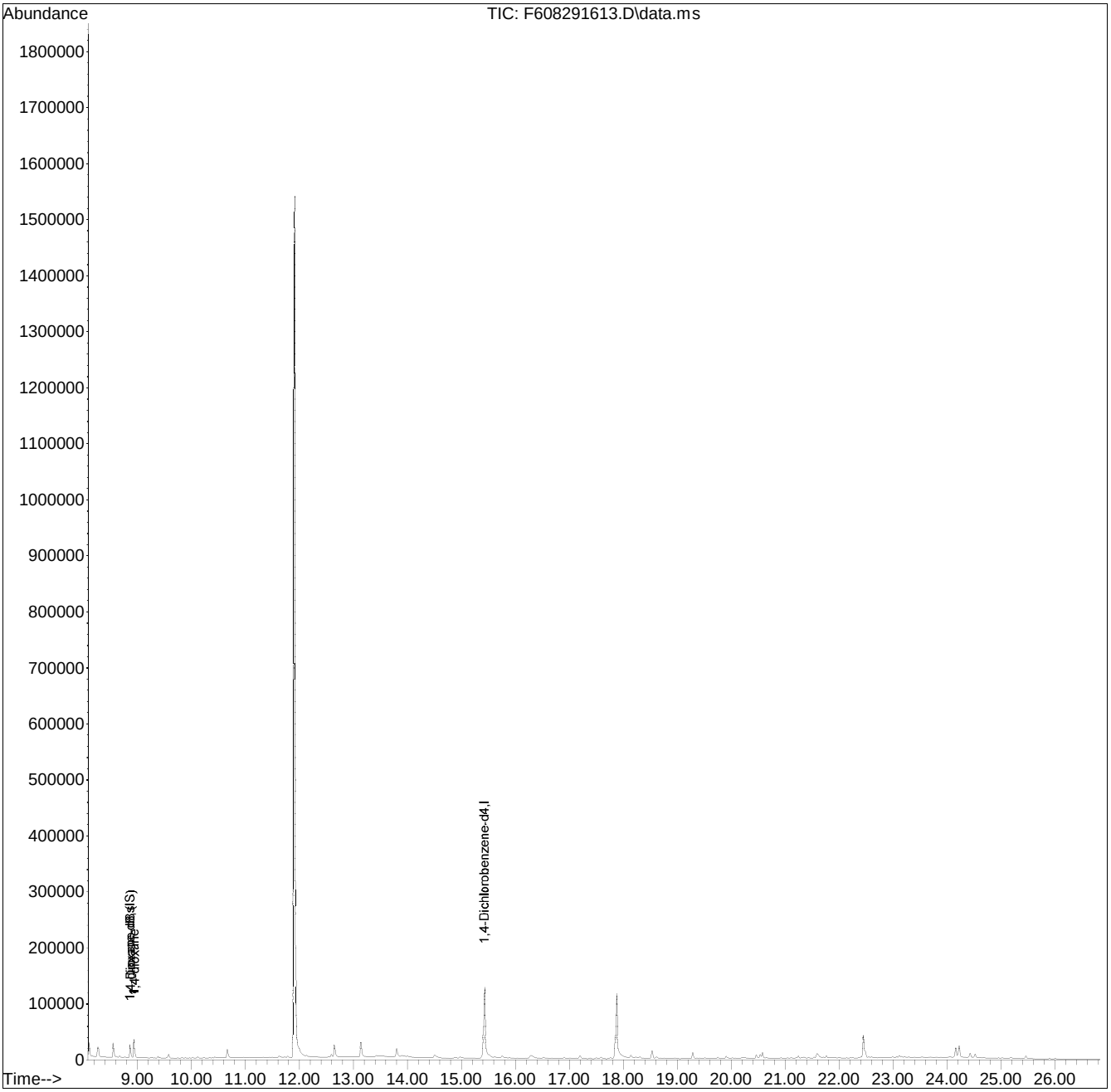
(#) = qualifier out of range (m) = manual integration (+) = signals summed

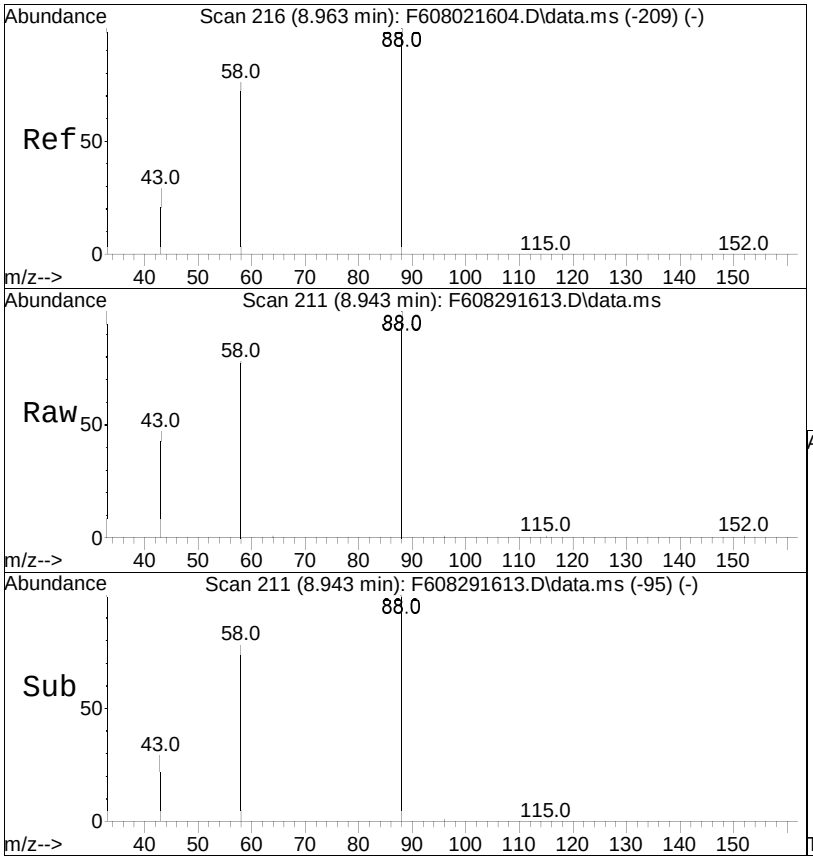
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291613.D
Acq On : 29 Aug 2016 10:29 pm
Operator : BNA6:WR
Sample : WG926574-4
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 31 12:51:41 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

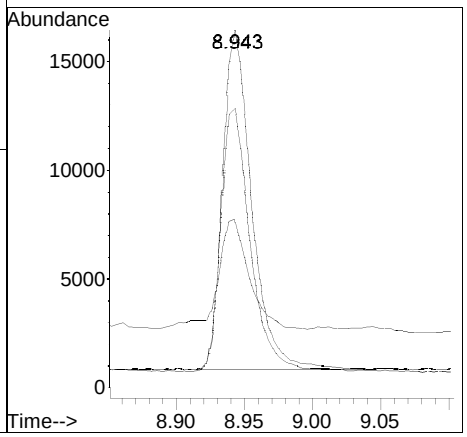




#2
1,4-dioxane
Concen: 581.83 ng/mL
RT: 8.943 min Scan# 211
Delta R.T. -0.028 min
Lab File: F608291613.D
Acq: 29 Aug 2016 10:29 pm

Tgt Ion: 88 Resp: 22953

Ion	Ratio	Lower	Upper
88	100		
58	78.7	62.1	93.1
43	32.6	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291615.D
Acq On : 29 Aug 2016 11:56 pm
Operator : BNA6:WR
Sample : WG926574-5
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 31 13:06:16 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.874	64	14743M4	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.422	152	192958	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.874	64	14827	88.785	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 17.76%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	24230M4	573.417	ng/mL	

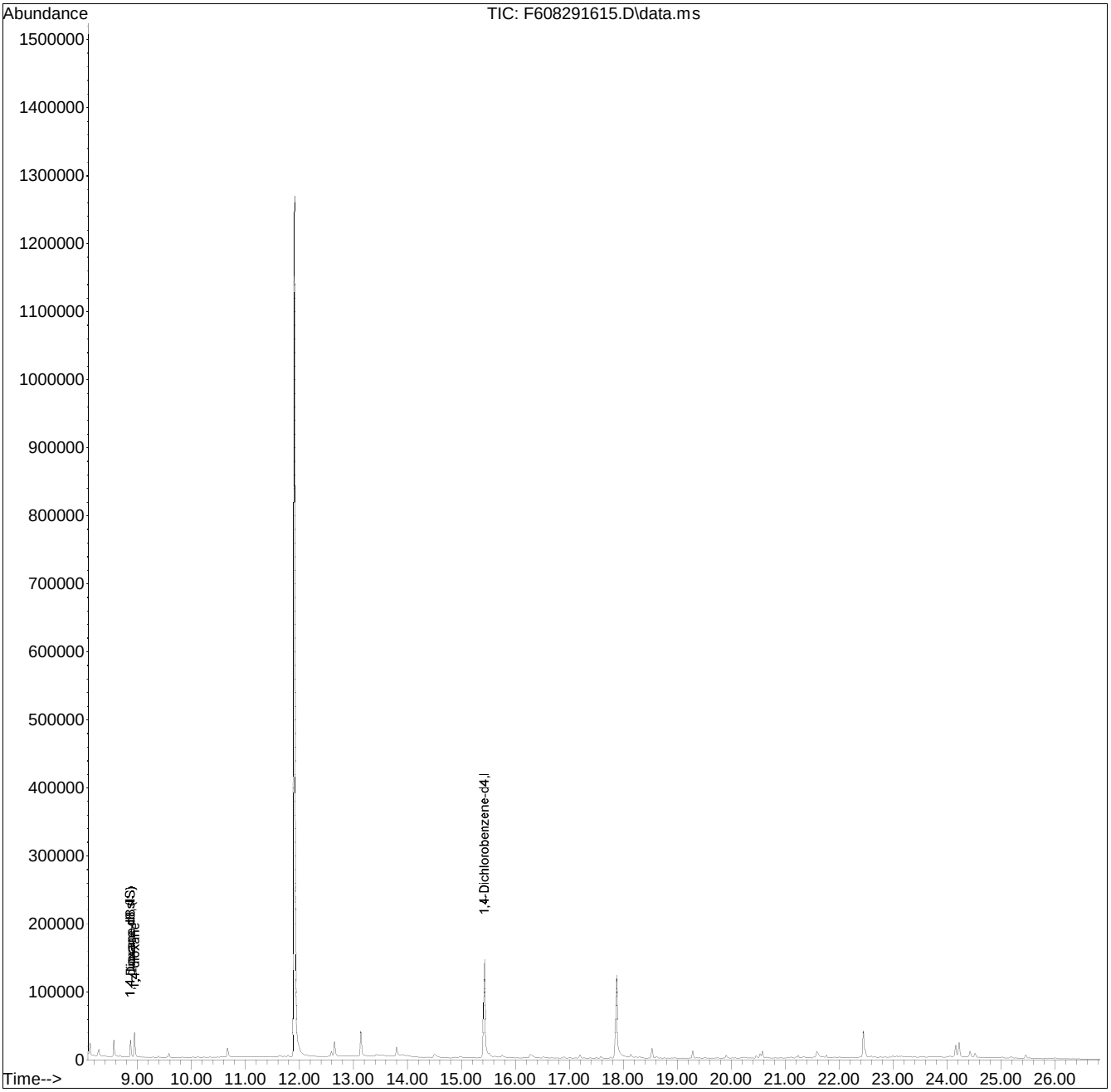
(#) = qualifier out of range (m) = manual integration (+) = signals summed

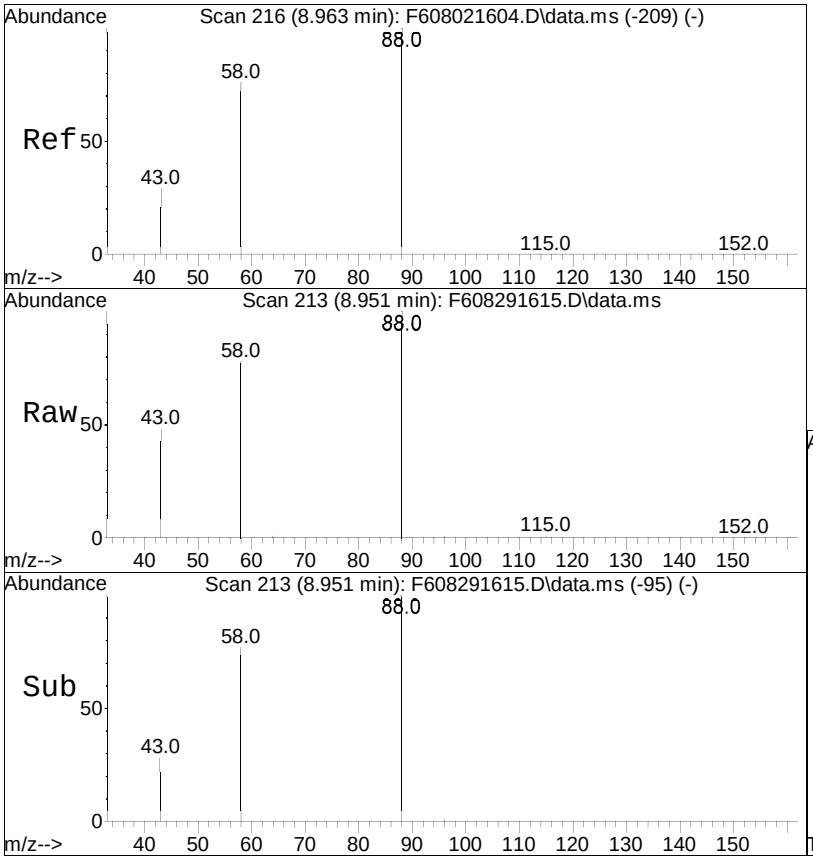
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug29\
Data File : F608291615.D
Acq On : 29 Aug 2016 11:56 pm
Operator : BNA6:WR
Sample : WG926574-5
Misc : WG926975,WG926574,ICAL12751
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 31 13:06:16 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug29\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

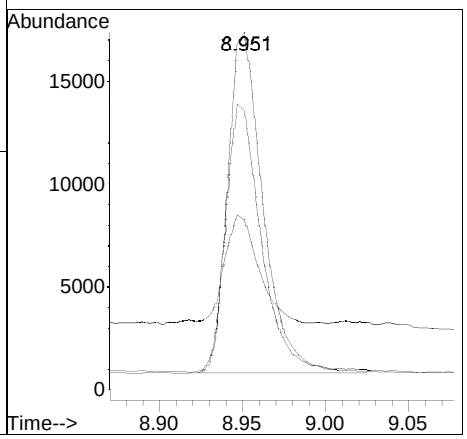




#2
1,4-dioxane
Concen: 573.42 ng/mL M4
RT: 8.951 min Scan# 213
Delta R.T. -0.020 min
Lab File: F608291615.D
Acq: 29 Aug 2016 11:56 pm

Tgt Ion: 88 Resp: 24230

Ion	Ratio	Lower	Upper
88	100		
58	79.3	62.1	93.1
43	30.6	24.4	36.6



Sample Preparation

ORGANIC ELN REPORT

Workgroup: WG926574

Prep Method: EPA 3510C
Solvent Type: DCM **Lot #:** 0000133719
Surrogate Type: 1,4-DIOXANE **Lot #:** MSAK13
Spike Type: 1,4-DIOXANE **Lot #:** MSAK04
Spike Verify by: ABS
Lims Spikelot: 14DIOXANE

Additional Reagents/Stds

Glass Wool	11414001
Na2SO4	0000131774

Conc.Method: S-EVAP
Solvent Type: DCM
Lot #: 0000133719

Additional Reagents/Stds

Cleanup 1

Cleanup Method 1:
Cleanup Method 2:
Solvent Type: **Lot #:**

Additional Reagents/Stds

Sample/ Type	Extraction: Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Concentration: Conc Date	Analyst	Final Vol ml	Conc Unit
WG926574-1 BLANK	08/27/16 08:00	Brian Anderson	500	7	.5		08/27/16 09:00	Alyssa Sass	5	SEVAP 5
WG926574-2 LCS	08/27/16 08:00	Brian Anderson	500	7	.5	.5	08/27/16 09:00	Alyssa Sass	5	SEVAP 5
WG926574-3 LCSD	08/27/16 08:00	Brian Anderson	500	7	.5	.5	08/27/16 09:00	Alyssa Sass	5	SEVAP 5
WG926574-4 MS	08/27/16 08:00	Brian Anderson	510	11	.5	.5	08/27/16 09:00	Alyssa Sass	5	SEVAP 5
	INITIAL PH OF 11 WAS BROUGHT TO A NEUTRAL PH OF 7 WITH H2SO4 OWA041416A 08/27/16 ABS									
WG926574-5 MSD	08/27/16 08:00	Brian Anderson	480	11	.5	.5	08/27/16 09:00	Alyssa Sass	5	SEVAP 5
	INITIAL PH OF 11 WAS BROUGHT TO A NEUTRAL PH OF 7 WITH H2SO4 OWA041416A 08/27/16 ABS									
L1626817-01 WATER	08/27/16 08:00	Brian Anderson	490	7	.5		08/27/16 09:00	Alyssa Sass	5	SEVAP 5
L1626817-02 WATER	08/27/16 08:00	Brian Anderson	510	7	.5		08/27/16 09:00	Alyssa Sass	5	SEVAP 5

Reported: 20-SEP-16 04:05 PM

ORGANIC ELN REPORT

Workgroup: WG926574

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Conc Date	Analyst	Final Vol ml	Conc Unit
L1626817-03 WATER	08/27/16 08:00	Brian Anderson	470	7	.5		08/27/16 09:00	Alyssa Sass	5	SEVAP 5
L1626817-04 WATER	08/27/16 08:00	Brian Anderson	510	11	.5		08/27/16 09:00	Alyssa Sass	5	SEVAP 5
	INITIAL PH OF 11 WAS BROUGHT TO A NEUTRAL PH OF 8 WITH H2SO4 OWA041416A 08/27/16 ABS									
L1626817-05 WATER	08/27/16 08:00	Brian Anderson	510	11	.5		08/27/16 09:00	Alyssa Sass	5	SEVAP 5
	INITIAL PH OF 11 WAS BROUGHT TO A NEUTRAL PH OF 9 WITH H2SO4 OWA041416A 08/27/16 ABS									
L1626817-06 WATER	08/27/16 08:00	Brian Anderson	470	11	.5		08/27/16 09:00	Alyssa Sass	5	SEVAP 5
	INITIAL PH OF 11 WAS BROUGHT TO A NEUTRAL PH OF 7 WITH H2SO4 OWA041416A 08/27/16 ABS									
L1626817-07 WATER	08/27/16 08:00	Brian Anderson	510	12	.5		08/27/16 09:00	Alyssa Sass	5	SEVAP 5
	INITIAL PH OF 12 WAS BROUGHT TO A NEUTRAL PH OF 7 WITH H2SO4 OWA041416A 08/27/16 ABS									
L1626817-08 WATER	08/27/16 08:00	Brian Anderson	490	12	.5		08/27/16 09:00	Alyssa Sass	5	SEVAP 5
	INITIAL PH OF 12 WAS BROUGHT TO A NEUTRAL PH OF 9 WITH H2SO4 OWA041416A 08/27/16 ABS									
L1626817-09 WATER	08/27/16 08:00	Brian Anderson	470	7	.5		08/27/16 09:00	Alyssa Sass	5	SEVAP 5
L1626817-10 WATER	08/27/16 08:00	Brian Anderson	510	7	.5		08/27/16 09:00	Alyssa Sass	5	SEVAP 5

Reported: 20-SEP-16 04:05 PM

Alpha Report

ANALYTICAL REPORT

Lab Number:	L1626817
Client:	Cornerstone Environmental Group, LLC 100 Crystal Run Road Suite 101 Middletown, NY 10941
ATTN:	Tim Roeper
Phone:	(845) 695-0200
Project Name:	FORD-RINGWOOD
Project Number:	140802-015
Report Date:	09/01/16

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626817
Report Date: 09/01/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1626817-01	FB-04-082416	WATER	RINGWOOD, NJ	08/24/16 07:45	08/25/16
L1626817-02	DUP-04-082416	WATER	RINGWOOD, NJ	08/24/16 12:00	08/25/16
L1626817-03	RW-3-082416	WATER	RINGWOOD, NJ	08/24/16 09:35	08/25/16
L1626817-04	RW-15S (110-120)-082416	WATER	RINGWOOD, NJ	08/24/16 11:50	08/25/16
L1626817-05	RW-15S (110-120)-082416 MS	WATER	RINGWOOD, NJ	08/24/16 11:50	08/25/16
L1626817-06	RW-15S (110-120)-082416 MSD	WATER	RINGWOOD, NJ	08/24/16 11:50	08/25/16
L1626817-07	RW-15D (127-137)-082416	WATER	RINGWOOD, NJ	08/24/16 13:40	08/25/16
L1626817-08	RW-4 (333-343)-082416	WATER	RINGWOOD, NJ	08/24/16 14:50	08/25/16
L1626817-09	RW-4 (393-403)-082416	WATER	RINGWOOD, NJ	08/24/16 15:35	08/25/16
L1626817-10	RW-4A (113-123)-082416	WATER	RINGWOOD, NJ	08/24/16 16:10	08/25/16

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626817
Report Date: 09/01/16

NJ DEP Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	YES
1a	Were the method specified handling, preservation, and holding time requirements met?	YES
1b	EPH Method: Was the EPH Method conducted without significant modifications (see Section 11.3 of respective DKQ methods)?	N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	YES
3	Were all samples received at an appropriate temperature (4 ± 2° C)?	YES
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	YES
5a	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	NO
5b	Were these reporting limits met?	N/A
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	NO
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	YES

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1a or #1b is "No", the data package does not meet the requirements for "Data of Known Quality".

Project Name: FORD-RINGWOOD **Lab Number:** L1626817
Project Number: 140802-015 **Report Date:** 09/01/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORD-RINGWOOD **Lab Number:** L1626817
Project Number: 140802-015 **Report Date:** 09/01/16

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

DKQP Related Narratives

Semi-Volatiles

In reference to question 5a:

Reporting limits were not specified.

In reference to question 6:

At the client's request, all submitted samples were not analyzed for the full DKQP list of constituents identified in the method specific analyte list presented in the DKQP documents.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Susan E O'Neil Susan O' Neil

Title: Technical Director/Representative Date: 09/01/16

ORGANICS

SEMIVOLATILES

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1626817
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626817-01
Client ID: FB-04-082416
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/29/16 17:13
Analyst: WR

Date Collected: 08/24/16 07:45
Date Received: 08/25/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/27/16 08:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.153	0.0765	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626817
Project Number: 140802-015
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626817-02
Client ID: DUP-04-082416
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/29/16 17:57
Analyst: WR

Date Collected: 08/24/16 12:00
Date Received: 08/25/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/27/16 08:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	29.0		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	23		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1626817
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626817-03
Client ID: RW-3-082416
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/29/16 18:41
Analyst: WR

Date Collected: 08/24/16 09:35
Date Received: 08/25/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/27/16 08:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	29.1		ug/l	0.160	0.0798	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	28		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626817
Project Number: 140802-015
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626817-04
Client ID: RW-15S (110-120)-082416
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/29/16 19:25
Analyst: WR

Date Collected: 08/24/16 11:50
Date Received: 08/25/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/27/16 08:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.277		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	19		15-110

Project Name: FORD-RINGWOOD **Lab Number:** L1626817

Project Number: 140802-015 **Report Date:** 09/01/16

SAMPLE RESULTS

Lab ID:	L1626817-05	Date Collected:	08/24/16 11:50
Client ID:	RW-15S (110-120)-082416 MS	Date Received:	08/25/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/27/16 08:00
Analytical Date:	08/29/16 21:45		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.210		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	18		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626817
Project Number: 140802-015
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID:	L1626817-06	Date Collected:	08/24/16 11:50
Client ID:	RW-15S (110-120)-082416 MSD	Date Received:	08/25/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/27/16 08:00
Analytical Date:	08/29/16 23:12		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.229		ug/l	0.160	0.0798	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	20		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626817
Project Number: 140802-015
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID:	L1626817-07	Date Collected:	08/24/16 13:40
Client ID:	RW-15D (127-137)-082416	Date Received:	08/25/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/27/16 08:00
Analytical Date:	08/30/16 00:40		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.860		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626817
Project Number: 140802-015
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626817-08
Client ID: RW-4 (333-343)-082416
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/30/16 01:23
Analyst: WR

Date Collected: 08/24/16 14:50
Date Received: 08/25/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/27/16 08:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.153	0.0765	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	29		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626817
Project Number: 140802-015
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626817-09
Client ID: RW-4 (393-403)-082416
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/30/16 02:07
Analyst: WR

Date Collected: 08/24/16 15:35
Date Received: 08/25/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/27/16 08:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.160	0.0798	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	28		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626817
Project Number: 140802-015
Report Date: 09/01/16

SAMPLE RESULTS

Lab ID: L1626817-10
Client ID: RW-4A (113-123)-082416
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/30/16 02:51
Analyst: WR

Date Collected: 08/24/16 16:10
Date Received: 08/25/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/27/16 08:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	27		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626817
Report Date: 09/01/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 08/29/16 15:00
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 08/27/16 08:00

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01-10 Batch: WG926574-1					
1,4-Dioxane	0.0766	J	ug/l	0.150	0.0750

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	28		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORD-RINGWOOD

Project Number: 140802-015

Lab Number: L1626817

Report Date: 09/01/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab	Associated sample(s): 01-10		Batch: WG926574-2		WG926574-3			
1,4-Dioxane	109		109		40-140	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	25		27		15-110

Matrix Spike Analysis
Batch Quality Control

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626817
Report Date: 09/01/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab (110-120)-082416 MS	Associated sample(s): 01-10		QC Batch ID: WG926574-4			WG926574-5		QC Sample: L1626817-05		Client ID: RW-15S		
1,4-Dioxane	0.210	4.9	5.70	112		5.97	111		40-140	5		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,4-Dioxane-d8	18		18		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626817
Report Date: 09/01/16

Sample Receipt and Container Information

Were project specific reporting limits specified? NO

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1626817-01A	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-01B	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-02A	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-02B	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-03A	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-03B	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-04A	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-04B	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-05A	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-05B	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-06A	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-06B	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-07A	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-07B	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-08A	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-08B	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-09A	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-09B	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-10A	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1626817-10B	Amber 500ml unpreserved	A	N/A	2.0	Y	Absent	A2-14-DIOXANESIM-PPB(7)

*Values in parentheses indicate holding time in days

Project Name:	FORD-RINGWOOD	**Lab Number:**	L1626817
Project Number:	140802-015	**Report Date:**	09/01/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORD-RINGWOOD	**Lab Number:**	L1626817
Project Number:	140802-015	**Report Date:**	09/01/16

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1626817
Report Date: 09/01/16

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: ***EPA 3050B***

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 8/26/16

ALPHA Job #: L1621617

Client Information
Client: Cornerstone Env Group
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information
Project Name: Ford - Ringwood
Project Location: Ringwood, NJ
Project #: 140802-015
(Use Project name as Project #) ☐
Project Manager: Tim Cooper
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information
☐ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Sample Specific Comments

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4 Dioxane SIM - PAB	Total Bottle
26817.01	FB-04-082416	8/24/16	07:45	BW	RR	✓	
02	Dup-04-082416	8/24/16	12:00	GW	RR	✓	
03	RW-3-082416	8/24/16	09:35	GW	RR	✓	
04	RW-15S(110-120)-082416	8/24/16	11:50	GW	RR	✓	
05	RW-15S(110-120)-082416 MS	8/24/16	11:50	GW	RR	✓	
06	RW-15S(110-120)-082416 MSD	8/24/16	11:50	GW	RR	✓	
07	RW-15D(127-137)-082416	8/24/16	13:40	GW	RR	✓	
08	RW-4(333-343)-082416	8/24/16	14:50	GW	RR	✓	
09	RW-4(393-403)-082416	8/24/16	15:35	GW	RR	✓	
10	RW-4A(113-123)-082416	8/24/16	16:10	GW	RR	✓	

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	8/25/16 8:32	[signature]	8/25/16 8:32
[signature]	8/25/16 1800	[signature]	8-25-16 1800
[signature]	8-26-16 0900	[signature]	8/26/16 0900
[signature]	8/26/16 10:35	[signature]	8/26/16 10:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Alpha
Summary Forms

Organic Summary Forms

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626817-01	**Date Collected**	: 08/24/16 07:45
Client ID	: FB-04-082416	**Date Received**	: 08/25/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/29/16 17:13
Sample Matrix	: WATER	**Date Extracted**	: 08/27/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608291606	**Analyst**	: WR
Sample Amount	: 490 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.153	0.0765	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	Lab Number	: L1626817
Project Name	: FORD-RINGWOOD	Project Number	: 140802-015
Lab ID	: L1626817-02	Date Collected	: 08/24/16 12:00
Client ID	: DUP-04-082416	Date Received	: 08/25/16
Sample Location	: RINGWOOD, NJ	Date Analyzed	: 08/29/16 17:57
Sample Matrix	: WATER	Date Extracted	: 08/27/16
Analytical Method	: 1,8270D-SIM	Dilution Factor	: 1
Lab File ID	: F608291607	Analyst	: WR
Sample Amount	: 510 ml	Instrument ID	: BNA6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 5000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
123-91-1	1,4-Dioxane	29.0	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626817-03	**Date Collected**	: 08/24/16 09:35
Client ID	: RW-3-082416	**Date Received**	: 08/25/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/29/16 18:41
Sample Matrix	: WATER	**Date Extracted**	: 08/27/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608291608	**Analyst**	: WR
Sample Amount	: 470 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	29.1	0.160	0.0798	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626817-04	**Date Collected**	: 08/24/16 11:50
Client ID	: RW-15S (110-120)-082416	**Date Received**	: 08/25/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/29/16 19:25
Sample Matrix	: WATER	**Date Extracted**	: 08/27/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608291609	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.277	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626817-05	**Date Collected**	: 08/24/16 11:50
Client ID	: RW-15S (110-120)-082416 M	**Date Received**	: 08/25/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/29/16 21:45
Sample Matrix	: WATER	**Date Extracted**	: 08/27/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608291612	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.210	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626817-06	**Date Collected**	: 08/24/16 11:50
Client ID	: RW-15S (110-120)-082416 M	**Date Received**	: 08/25/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/29/16 23:12
Sample Matrix	: WATER	**Date Extracted**	: 08/27/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608291614	**Analyst**	: WR
Sample Amount	: 470 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.229	0.160	0.0798	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626817-07	**Date Collected**	: 08/24/16 13:40
Client ID	: RW-15D (127-137)-082416	**Date Received**	: 08/25/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/30/16 00:40
Sample Matrix	: WATER	**Date Extracted**	: 08/27/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608291616	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.860	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626817-08	**Date Collected**	: 08/24/16 14:50
Client ID	: RW-4 (333-343)-082416	**Date Received**	: 08/25/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/30/16 01:23
Sample Matrix	: WATER	**Date Extracted**	: 08/27/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608291617	**Analyst**	: WR
Sample Amount	: 490 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.153	0.0765	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	Lab Number	: L1626817
Project Name	: FORD-RINGWOOD	Project Number	: 140802-015
Lab ID	: L1626817-09	Date Collected	: 08/24/16 15:35
Client ID	: RW-4 (393-403)-082416	Date Received	: 08/25/16
Sample Location	: RINGWOOD, NJ	Date Analyzed	: 08/30/16 02:07
Sample Matrix	: WATER	Date Extracted	: 08/27/16
Analytical Method	: 1,8270D-SIM	Dilution Factor	: 1
Lab File ID	: F608291618	Analyst	: WR
Sample Amount	: 470 ml	Instrument ID	: BNA6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 5000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
123-91-1	1,4-Dioxane	ND	0.160	0.0798	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626817-10	**Date Collected**	: 08/24/16 16:10
Client ID	: RW-4A (113-123)-082416	**Date Received**	: 08/25/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 08/30/16 02:51
Sample Matrix	: WATER	**Date Extracted**	: 08/27/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F608291619	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.147	0.0735	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	Lab Number	: L1626817
Project Name	: FORD-RINGWOOD	Project Number	: 140802-015
Lab ID	: WG926574-1	Date Collected	: NA
Client ID	: WG926574-1BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 08/29/16 15:00
Sample Matrix	: WATER	Date Extracted	: 08/27/16
Analytical Method	: 1,8270D-SIM	Dilution Factor	: 1
Lab File ID	: F608291603	Analyst	: WR
Sample Amount	: 500 ml	Instrument ID	: BNA6
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 5000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

		ug/L			
CAS NO.	Parameter	Results	RL	MDL	Qualifier
123-91-1	1,4-Dioxane	0.0766	0.150	0.0750	J

Form 2
Surrogate Recovery
SEMIVOLATILES

Client: Cornerstone Environmental Group, LLC
Project Name: FORD-RINGWOOD

Lab Number: L1626817
Project Number: 140802-015
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 ()	S2 ()	S3 ()	S4 ()	S5 ()	S6 ()	TOT OUT
DUP-04-082416 (L1626817-02)	23	--	--	--	--	--	0
FB-04-082416 (L1626817-01)	24	--	--	--	--	--	0
WG926574-3LCSD	27	--	--	--	--	--	0
WG926574-2LCS	25	--	--	--	--	--	0
WG926574-1BLANK	28	--	--	--	--	--	0
RW-15S (110-120)-082416	18	--	--	--	--	--	0
RW-15S (110-120)-082416	18	--	--	--	--	--	0
RW-15D (127-137)-082416 (L1626817-07)	24	--	--	--	--	--	0
RW-15S (110-120)-082416 (L1626817-04)	19	--	--	--	--	--	0
RW-15S (110-120)-082416 (L1626817-05)	18	--	--	--	--	--	0
RW-15S (110-120)-082416 (L1626817-06)	20	--	--	--	--	--	0
RW-3-082416 (L1626817-03)	28	--	--	--	--	--	0
RW-4 (333-343)-082416 (L1626817-08)	29	--	--	--	--	--	0
RW-4 (393-403)-082416 (L1626817-09)	28	--	--	--	--	--	0
RW-4A (113-123)-082416 (L1626817-10)	27	--	--	--	--	--	0

	QC LIMITS
S1 = 1,4-DIOXANE-D8	(15-110)

* Values outside of QC limits

FORM II A2-14-DIOXANESIM-PPB

Laboratory Control Sample
Form 3

Client	: Cornerstone Environmental Group, LL			**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD			**Project Number**	: 140802-015
Matrix	: WATER				
LCS Sample ID	: WG926574-2	**Analysis Date :**	08/29/16 15:44	**File ID**	: F608291604
LCSD Sample ID	: WG926574-3	**Analysis Date :**	08/29/16 16:29	**File ID**	: F608291605

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	**True (ug/l)**	**Found (ug/l)**	**%R**	**True (ug/l)**	**Found (ug/l)**	**%R**	**RPD**	**Recovery Limits**	**RPD Limit**
1,4-Dioxane	5	5.47	109	5	5.44	109	0	40-140	30

Matrix Spike
Form 3

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Client Sample ID	: RW-15S (110-120)-082416 MS	**Matrix**	: WATER
Lab Sample ID	: L1626817-05	**Analysis Date**	: 08/29/16 21:45
Matrix Spike	: WG926574-4	**MS Analysis Date**	: 08/29/16 22:29
Matrix Spike Dup	: WG926574-5	**MSD Analysis Date**	: 08/29/16 23:56

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (ug/l)	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	RPD	Recovery Limits	RPD Limit
1,4-Dioxane	0.210	4.9	5.70	112	5.21	5.97	111	5	40-140	30

Method Blank Summary
Form 4

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab Sample ID	: WG926574-1	**Lab File ID**	: F608291603
Instrument ID	: BNA6	**Extraction Date**	: 08/27/16
Matrix	: WATER	**Analysis Date**	: 08/29/16 15:00
Level	: LOW		

Client Sample No.	Lab Sample ID	Analysis Date
WG926574-2LCS	WG926574-2	08/29/16 15:44
WG926574-3LCSD	WG926574-3	08/29/16 16:29
FB-04-082416	L1626817-01	08/29/16 17:13
DUP-04-082416	L1626817-02	08/29/16 17:57
RW-3-082416	L1626817-03	08/29/16 18:41
RW-15S (110-120)-082416	L1626817-04	08/29/16 19:25
RW-15S (110-120)-082416 MS	L1626817-05	08/29/16 21:45
RW-15S (110-120)-082416 MSMS	WG926574-4	08/29/16 22:29
RW-15S (110-120)-082416 MSD	L1626817-06	08/29/16 23:12
RW-15S (110-120)-082416 MSMSD	WG926574-5	08/29/16 23:56
RW-15D (127-137)-082416	L1626817-07	08/30/16 00:40
RW-4 (333-343)-082416	L1626817-08	08/30/16 01:23
RW-4 (393-403)-082416	L1626817-09	08/30/16 02:07
RW-4A (113-123)-082416	L1626817-10	08/30/16 02:51

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/10/16 13:25
Tune Standard	: R891220-9	**Tune File ID**	: F608101603_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	28.1
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	38.3
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.8
275	10.0 - 60.0% of Base Peak	28.4
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	15.6
442	Base Peak, or >50% of mass 198	94.3
443	15.0 - 24.0% of mass 442	18.3 (19.4)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD 10	R891220-2	F608101604	08/10/16 14:22
STD 50	R891220-3	F608101605	08/10/16 15:07
STD 100	R891220-4	F608101606	08/10/16 15:51
STD 500	R891220-5	F608101607	08/10/16 16:36
STD 1000	R891220-1	F608101608	08/10/16 17:21
STD 5000	R891220-6	F608101609	08/10/16 18:06
STD 10000	R891220-7	F608101610	08/10/16 18:51
ICV Quant Report STD 1000	R891220-8	F608101611	08/10/16 19:36

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/29/16 09:04
Tune Standard	: WG926975-1	**Tune File ID**	: F608291601_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	28.2
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.1 (.5)1
127	10.0 - 80.0% of Base Peak	38.4
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.8
275	10.0 - 60.0% of Base Peak	27.9
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	15.4
442	Base Peak, or >50% of mass 198	92
443	15.0 - 24.0% of mass 442	17.9 (19.5)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG926975-3CCAL	WG926975-3	F608291602	08/29/16 10:00
WG926574-1BLANK	WG926574-1	F608291603	08/29/16 15:00
WG926574-2LCS	WG926574-2	F608291604	08/29/16 15:44
WG926574-3LCSD	WG926574-3	F608291605	08/29/16 16:29
FB-04-082416	L1626817-01	F608291606	08/29/16 17:13
DUP-04-082416	L1626817-02	F608291607	08/29/16 17:57
RW-3-082416	L1626817-03	F608291608	08/29/16 18:41
RW-15S (110-120)-082416	L1626817-04	F608291609	08/29/16 19:25

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/29/16 20:05
Tune Standard	: WG926975-4	**Tune File ID**	: F608291610_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	27.4
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	37
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.9
275	10.0 - 60.0% of Base Peak	29.3
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	14.7
442	Base Peak, or >50% of mass 198	99.4
443	15.0 - 24.0% of mass 442	18.9 (19)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG926975-6CCAL	WG926975-6	F608291611	08/29/16 21:01
RW-15S (110-120)-082416 MS	L1626817-05	F608291612	08/29/16 21:45
WG926574-4MS	WG926574-4	F608291613	08/29/16 22:29
RW-15S (110-120)-082416 MSD	L1626817-06	F608291614	08/29/16 23:12
WG926574-5MSD	WG926574-5	F608291615	08/29/16 23:56
RW-15D (127-137)-082416	L1626817-07	F608291616	08/30/16 00:40
RW-4 (333-343)-082416	L1626817-08	F608291617	08/30/16 01:23
RW-4 (393-403)-082416	L1626817-09	F608291618	08/30/16 02:07
RW-4A (113-123)-082416	L1626817-10	F608291619	08/30/16 02:51

Initial Calibration Summary
Form 6

Client	**: Cornerstone Environmental Group, LL**	**Lab Number**	**: L1626817**
Project Name	**: FORD-RINGWOOD**	**Project Number**	**: 140802-015**
Instrument ID	**: BNA6**	**Ical Ref**	**: ICAL12751**
Calibration dates	**: 08/10/16 14:22 08/10/16 18:51**		

Calibration Files
10 =F608101604.D 50 =F608101605.D 100 =F608101606.D 500 =F608101607.D 1000=F608101608.D
5000=F608101609.D 1e4 =F608101610.D

		Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)		1,4-Dioxane-d8 (IS)	----------ISTD----------								
2)		1,4-dioxane	1.556	1.402	1.394	1.386	1.470	1.417	1.405	1.433	4.24
3)	I	1,4-Dichlorobenzene-d4	----------ISTD----------								
4)	s	1,4-dioxane-d8	0.428	0.444	0.423	0.441	0.417	0.442	0.435	0.433	2.41

Continuing Calibration
Form 7

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817	
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015	
Instrument ID	: BNA6	**Calibration Date**	: 08/29/16 10:00	
Lab File ID	: F608291602	**Init. Calib. Date(s)**	: 08/10/16	08/10/16
Sample No	: WG926975-3	**Init. Calib. Times**	: 14:22	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	91	-.08
1,4-dioxane	1.433	1.378	-	3.8	20	85	-.08
1,4-Dichlorobenzene-d4	1	1	-	0	20	100	-.09
1,4-dioxane-d8	0.433	0.376	-	13.2	20	89	-.08

* Value outside of QC limits.

Continuing Calibration
Form 7

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817	
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015	
Instrument ID	: BNA6	**Calibration Date**	: 08/29/16 21:01	
Lab File ID	: F608291611	**Init. Calib. Date(s)**	: 08/10/16	08/10/16
Sample No	: WG926975-6	**Init. Calib. Times**	: 14:22	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	86	-.08
1,4-dioxane	1.433	1.377	-	3.9	20	80	-.08
1,4-Dichlorobenzene-d4	1	1	-	0	20	91	-.09
1,4-dioxane-d8	0.433	0.391	-	9.7	20	84	-.08

* Value outside of QC limits.

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/29/16 10:00
Sample No	: WG926975-3	**Lab File ID**	: F608291602

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG926975-3	201479	15.42				
Upper Limit	402958	15.92				
Lower Limit	100740	14.92				
Sample ID						
WG926574-1 BLANK	184615	15.41				
WG926574-2 LCS	183267	15.42				
WG926574-3 LCSD	173297	15.43				
FB-04-082416	178599	15.43				
DUP-04-082416	167326	15.43				
RW-3-082416	154964	15.43				
RW-15S (110-120)-082416	179150	15.42				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626817
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/29/16 21:01
Sample No	: WG926975-6	**Lab File ID**	: F608291611

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG926975-6	183115	15.42				
Upper Limit	366230	15.92				
Lower Limit	91558	14.92				
Sample ID						
RW-15S (110-120)-082416 MS	180016	15.42				
RW-15S (110-120)-082416 MS MS	174868	15.42				
RW-15S (110-120)-082416 MSD	182109	15.42				
RW-15S (110-120)-082416 MS MSD	192958	15.42				
RW-15D (127-137)-082416	216614	15.42				
RW-4 (333-343)-082416	181725	15.42				
RW-4 (393-403)-082416	180701	15.42				
RW-4A (113-123)-082416	175351	15.42				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

ALPHA ANALYTICAL

World Class Chemistry

www.alphalab.com

Lab Number: L1626902

Client: Cornerstone/Cadena Co. joint acc

ATTN: Jim Tomalia

Project Name: FORD-RINGWOOD

Project Number: 140802-015

September 21, 2016

Data Deliverable Revision Narrative
Alpha SDG: L1626902
Client: Cornerstone Environmental Group, LLC
Site: FORD-RINGWOOD

This data package replaces the data package issued on September 2, 2016. The package type has changed to DPKG-FULL.

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Sample Delivery Group Information

Sample Delivery Group Form

Laboratory Job number: L1626902
Project Manager: Nichole Hunt **Review Date:** 08/30/2016
Project Number: 140802-015
Project Name: FORD-RINGWOOD **Received:** 08/26/2016 14:45
Client Account: Cornerstone/Cadena Co. joint account **Received by:** BB

Samples Delivered by: **Call Tracker #**
Bill Of Laden N/A **Trackingnum**
Coc Present Present

Container Status Intact **Sample IDs**

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt 7 **Are samples Properly Preserved?** Yes
Initial pH **preserved in house with** **Final pH**
Other Issues
Chlorine Check N/A

Are VOA/VPH Vials Present? No
Aqueous: Do Vials Contain Head Space? N/A
Soils: Is MeOHCovering the Soil? N/A
Reagent H2O Preserved vials Frozen on N/A
Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
A	Absent	Yes	No	2.0 - IR Gun	No	No

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 22 2016, 11:41 am

Login Number: L1626902

Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015

Received: 26AUG16 Due Date: 02SEP16

Sample #	Client ID	Mat	PR	Collected	Container
L1626902-01	RW-4A(62-72)-082516	1	S0	25AUG16 08:10	2-Amber-A.5
| DPKG-FULL Package Due Date: 09/02/16					
A2-1,4-DIOXANE-SIM,DPKG-FULL,NJDEP					
L1626902-02	RW-13(71-91)-082516	1	S0	25AUG16 09:45	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-1,4-DIOXANE-SIM					
L1626902-03	RW-12(130-140)-0825	1	S0	25AUG16 12:25	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-1,4-DIOXANE-SIM					
L1626902-04	RW-8(204-214)-08251	1	S0	25AUG16 13:45	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-1,4-DIOXANE-SIM					
L1626902-05	RW-8(163-173)-08251	1	S0	25AUG16 16:05	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-1,4-DIOXANE-SIM					
L1626902-06	RW-13(100-120)-0825	1	S0	25AUG16 07:45	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-1,4-DIOXANE-SIM					
L1626902-07	RW-13(150-170)-0826	1	S0	26AUG16 08:25	2-Amber-A.5
| Package Due Date: 09/02/16					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 22 2016, 11:41 am

Login Number: L1626902

Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015

Received: 26AUG16 Due Date: 02SEP16

Sample #	Client ID	Mat	PR	Collected	Container
A2-1,4-DIOXANE-SIM					
L1626902-08	DUP-05-082616	1	S0	26AUG16 12:00	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-1,4-DIOXANE-SIM					
L1626902-09	RW-10(185-195)-0826	1	S0	26AUG16 13:05	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-1,4-DIOXANE-SIM					
L1626902-10	RW-10A(75-85)-08261	1	S0	26AUG16 14:15	2-Amber-A.5
| Package Due Date: 09/02/16					
A2-1,4-DIOXANE-SIM					

Logged By: Nichole Hunt

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1626902-01A	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-01A	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-01B	Amber-A.5	EMPTY	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Daniel Robbins	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Daniel Robbins
L1626902-01B	Amber-A.5	INTACT	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626902-01B	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-01B	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-02A	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-02A	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-02B	Amber-A.5	EMPTY	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Daniel Robbins	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Daniel Robbins
L1626902-02B	Amber-A.5	INTACT	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626902-02B	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-02B	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-03A	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-03A	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-03B	Amber-A.5	EMPTY	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Daniel Robbins	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Daniel Robbins
L1626902-03B	Amber-A.5	INTACT	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626902-03B	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-03B	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-04A	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-04A	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-04B	Amber-A.5	EMPTY	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Daniel Robbins	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Daniel Robbins
L1626902-04B	Amber-A.5	INTACT	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626902-04B	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-04B	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-05A	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1626902-05A	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-05B	Amber-A.5	EMPTY	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Daniel Robbins	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Daniel Robbins
L1626902-05B	Amber-A.5	INTACT	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626902-05B	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-05B	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-06A	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-06A	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-06B	Amber-A.5	EMPTY	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Daniel Robbins	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Daniel Robbins
L1626902-06B	Amber-A.5	INTACT	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626902-06B	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-06B	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-07A	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-07A	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-07B	Amber-A.5	EMPTY	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Daniel Robbins	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Daniel Robbins
L1626902-07B	Amber-A.5	INTACT	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626902-07B	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-07B	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-08A	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-08A	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-08B	Amber-A.5	EMPTY	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Daniel Robbins	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Daniel Robbins
L1626902-08B	Amber-A.5	INTACT	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626902-08B	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-08B	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-09A	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-09A	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1626902-09B	Amber-A.5	EMPTY	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Daniel Robbins	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Daniel Robbins
L1626902-09B	Amber-A.5	INTACT	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626902-09B	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-09B	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-10A	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-10A	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang
L1626902-10B	Amber-A.5	EMPTY	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Daniel Robbins	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Daniel Robbins
L1626902-10B	Amber-A.5	INTACT	29-AUG-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Alyssa Sass	A2-ORGANIC PREP	A2-ORGANIC PREP	Alyssa Sass
L1626902-10B	Amber-A.5	INTACT	27-AUG-16	CUSTODY	CUSTODY	Bethany Bedard	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Bethany Bedard
L1626902-10B	Amber-A.5	INTACT	27-AUG-16	LOGIN	LOGIN	Michael Chang	CUSTODY	CUSTODY	Michael Chang

Chain of Custody

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 8/27/16

ALPHA Job #: L1626902

Client Information

Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information

Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #: 140802-015
(Use Project name as Project #) ☐
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: A2 1,4 Dioxane SIM - PAS	Total Bottle
26902-01	RW-4A(62-72)-082516	8/25/16	08:10	GW		✓	
-02	RW-13(71-91)-082516	8/25/16	09:45	GW		✓	
-03	RW-12(130-140)-082516	8/25/16	12:25	GW		✓	
-04	RW-8(204-214)-082516	8/25/16	13:45	GW		✓	
-05	RW-8(163-173)-082516	8/25/16	16:05	GW		✓	
-06	RW-13(100-120)-082616	8/26/16	07:45	GW		✓	
-07	RW-13(150-170)-082616	8/26/16	08:25	GW		✓	
-08	Dup-05-082616	8/26/16	12:00	GW		✓	
-09	RW-10(185-195)-082616	8/26/16	13:05	GW		✓	
-10	RW-10A(75-85)-082616	8/26/16	14:15	GW		✓	
					Container Type	A	
					Preservative	A	

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
[redacted]	8/26/16 14:45	[redacted]	8/26/16 14:45
[redacted]	8/26/16 18:00	[redacted]	8-26-16 1800
[redacted]	8-27-16 0200	[redacted]	8/27/16 0200

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Organics

GCMS Extractables 1,4-Dioxane By SIM

Initial Calibration

Response Factor Report BNA7

Method Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Method File : 14DIOX0830BNA7.M
Title : Semivolatiles by GC/MS
Last Update : Wed Aug 31 14:53:31 2016
Response Via : Initial Calibration

Calibration Files
10 =F708301602.D 50 =F708301603.D 100 =F708301604.D 500 =F708301605.D 1000=F708301606.D
5000=F708301607.D 1e4 =F708301608.D

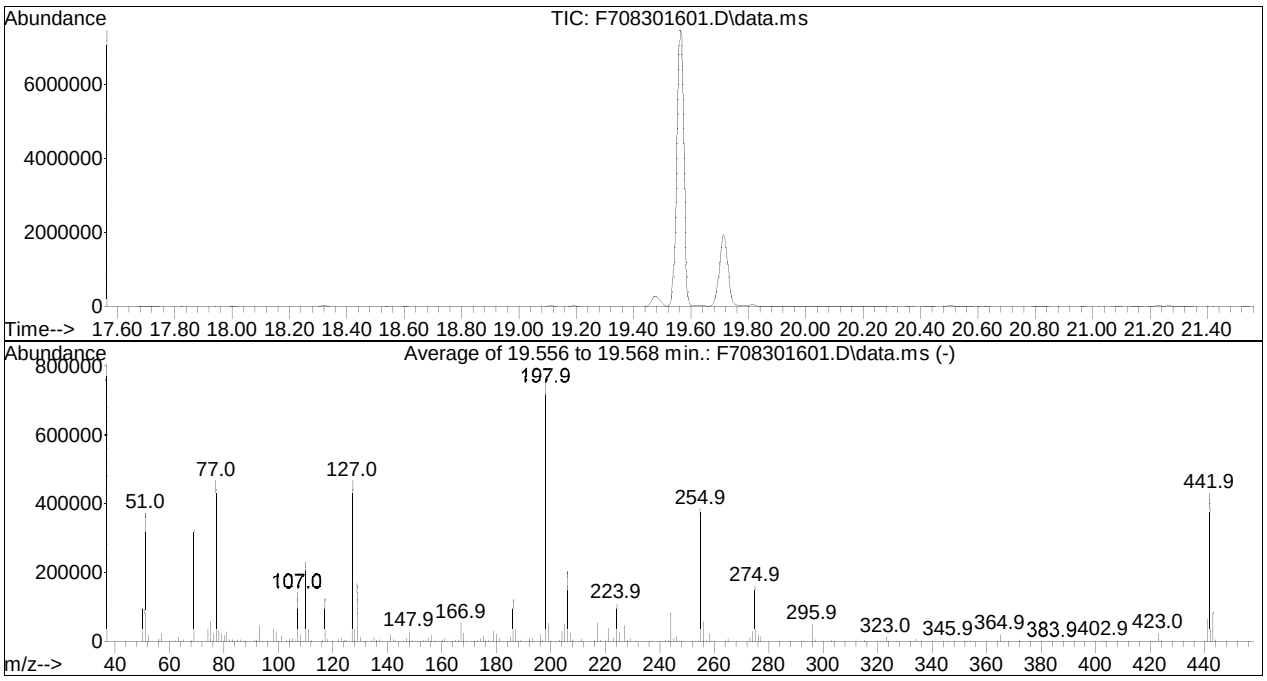
	Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)	1,4-Dioxane-d8 (IS)	ISTD								
2)	1,4-dioxane	1.512	1.459	1.460	1.426	1.483	1.359	1.332	1.433	4.59
3) I	1,4-Dichlorobenzene-d4	ISTD								
4) s	1,4-dioxane-d8	0.444	0.399	0.403	0.425	0.430	0.430	0.418	0.421	3.81

(#) = Out of Range

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301601.D
Acq On : 30 Aug 2016 01:22 pm
Operator : BNA7:WR
Sample : T708301601
Misc : WG927778,MSAJ70
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Title : Semivolatiles by GC/MS
Last Update : Wed Aug 31 14:53:31 2016



AutoFind: Scans 1917, 1918, 1919; Background Corrected with Scan 1909

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	48.6	372752	PASS
68	69	0.00	2	1.5	5002	PASS
70	69	0.00	2	0.5	1768	PASS
127	198	10	80	60.8	466341	PASS
197	198	0.00	2	0.7	5241	PASS
198	198	100	100	100.0	766790	PASS
199	198	5	9	6.9	52599	PASS
275	198	10	60	20.8	159389	PASS
365	198	1	100	2.7	20895	PASS
441	442	0.01	24	14.6	62609	PASS
442	198	50	100	56.1	430288	PASS
443	442	15	24	19.8	85107	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301602.D
Acq On : 30 Aug 2016 02:14 pm
Operator : BNA7:WR
Sample : I708301601
Misc : WG927778,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 31 14:55:22 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.193	64	21258	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.955	152	47885M4	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.193	64	21258	526.980	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 105.40%			
Target Compounds						Qvalue
2) 1,4-dioxane	9.278	88	643	10.553	ng/mL	96

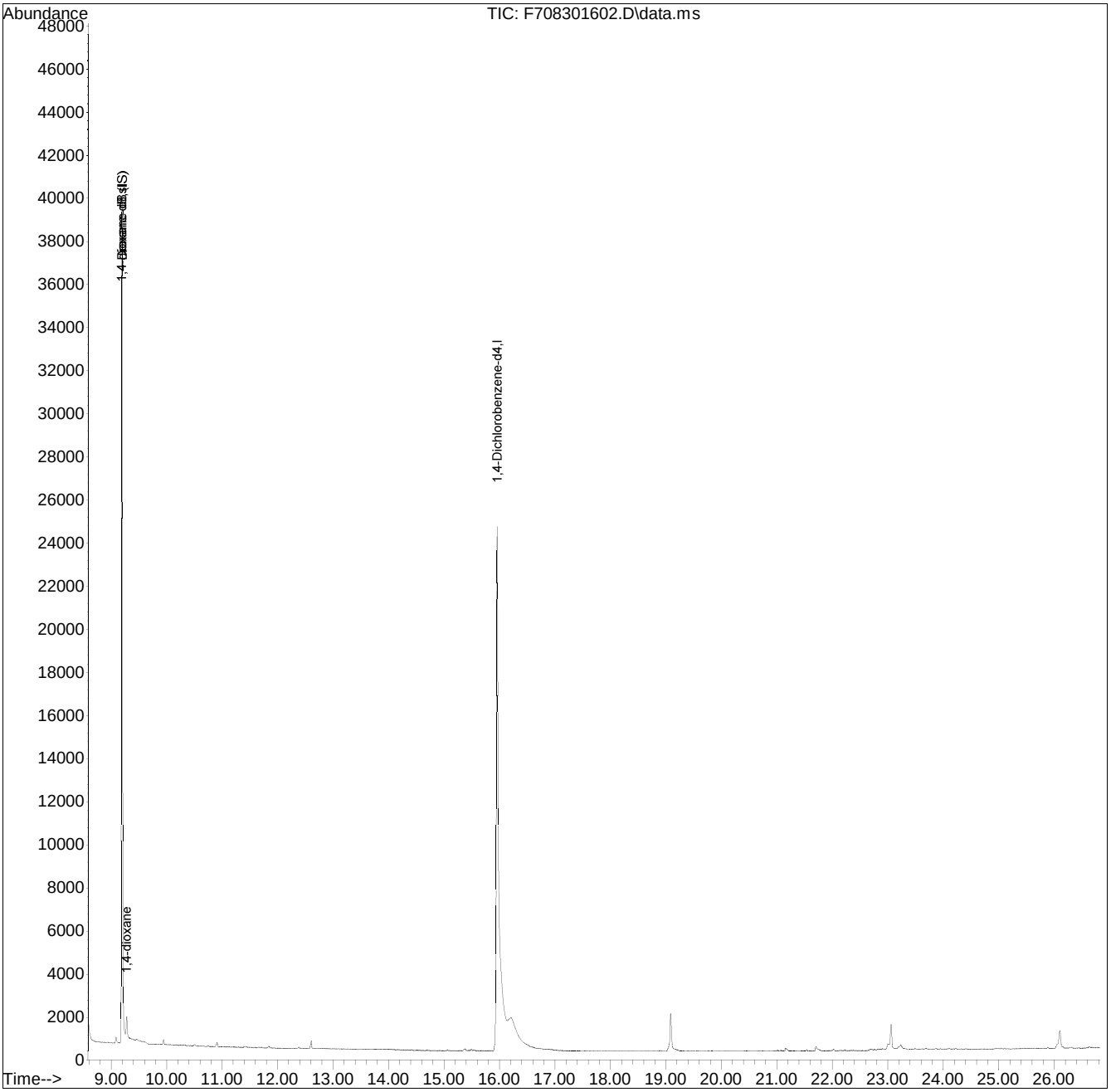
(#) = qualifier out of range (m) = manual integration (+) = signals summed

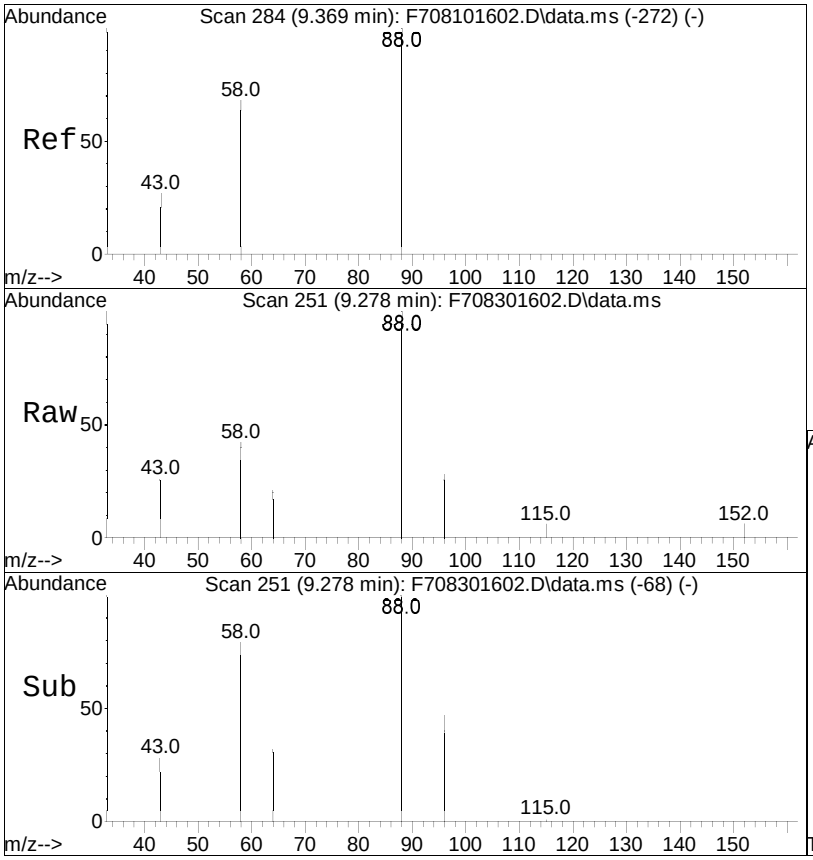
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301602.D
Acq On : 30 Aug 2016 02:14 pm
Operator : BNA7:WR
Sample : I708301601
Misc : WG927778,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 31 14:55:22 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

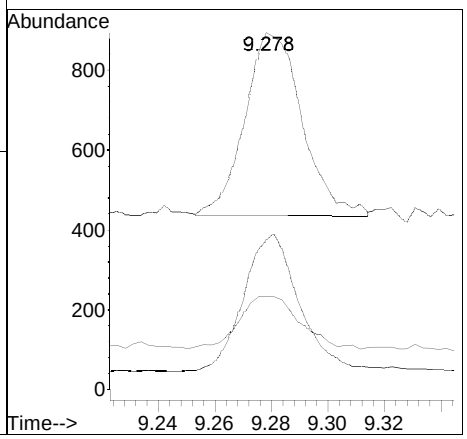




#2
1,4-dioxane
Concen: 10.55 ng/mL
RT: 9.278 min Scan# 251
Delta R.T. 0.006 min
Lab File: F708301602.D
Acq: 30 Aug 2016 02:14 pm

Tgt Ion: 88 Resp: 643

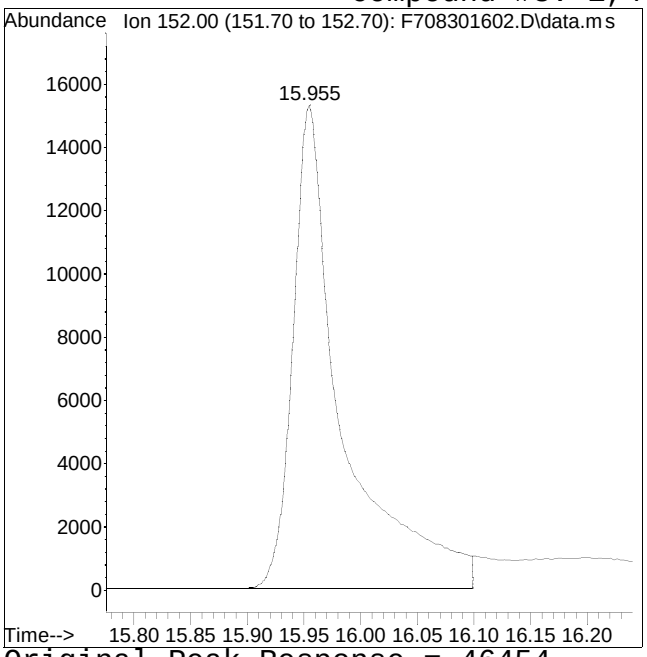
Ion	Ratio	Lower	Upper
88	100		
58	73.9	62.1	93.1
43	29.5	24.4	36.6



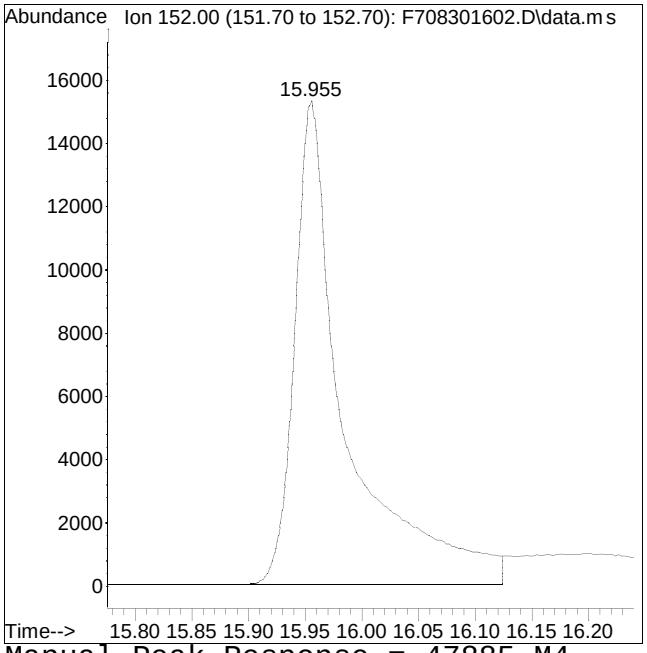
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA7\2016\ QMethod : 14DIOX0830BNA7.M
Data File : F708301602.D Operator : BNA7:WR
Date Inj'd : 8/30/2016 2:14 pm Instrument : BNA7
Sample : I708301601 Quant Date : 8/31/2016 2:55 pm

Compound #3: 1,4-Dichlorobenzene-d4



Original Peak Response = 46454



Manual Peak Response = 47885 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301603.D
Acq On : 30 Aug 2016 02:56 pm
Operator : BNA7:WR
Sample : I708301602
Misc : WG927778,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 31 14:55:25 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.195	64	20888	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.955	152	52386	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.195	64	20888	473.318	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 94.66%			
Target Compounds						Qvalue
2) 1,4-dioxane	9.281	88	3048	50.909	ng/mL	96

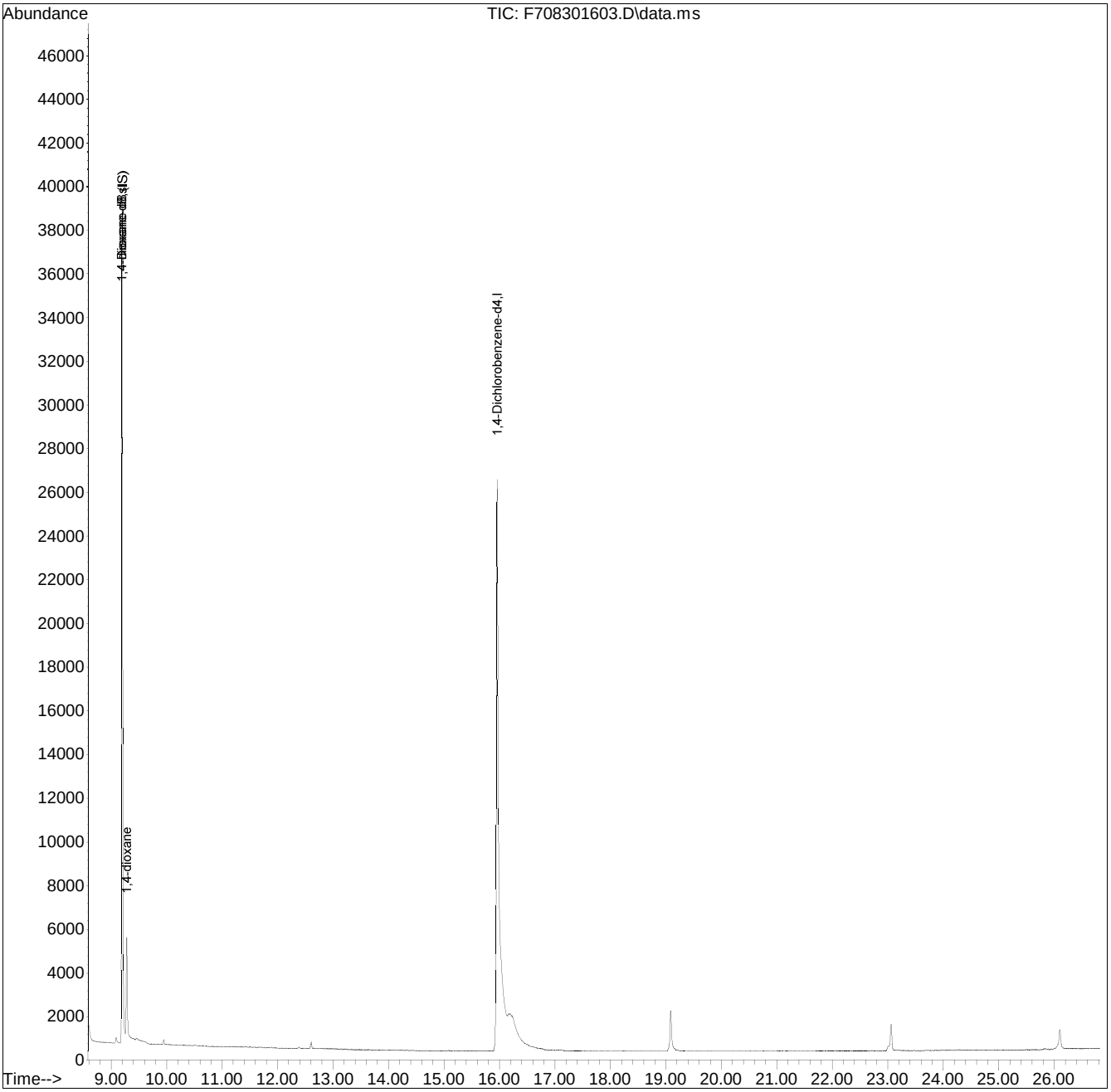
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301603.D
Acq On : 30 Aug 2016 02:56 pm
Operator : BNA7:WR
Sample : I708301602
Misc : WG927778,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 31 14:55:25 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA7\2016\	QMethod	: 14DIOX0830BNA7.M
Data File	: F708301603.D	Operator	: BNA7:WR
Date Inj'd	: 8/30/2016 2:56 pm	Instrument	: BNA7
Sample	: I708301602	Quant Date	: 8/31/2016 2:55 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301604.D
Acq On : 30 Aug 2016 03:38 pm
Operator : BNA7:WR
Sample : I708301603
Misc : WG927778,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 14:55:29 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.193	64	21014	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.955	152	52158	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.193	64	21014	478.255	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 95.65%			
Target Compounds						Qvalue
2) 1,4-dioxane	9.278	88	6138	101.904	ng/mL	95

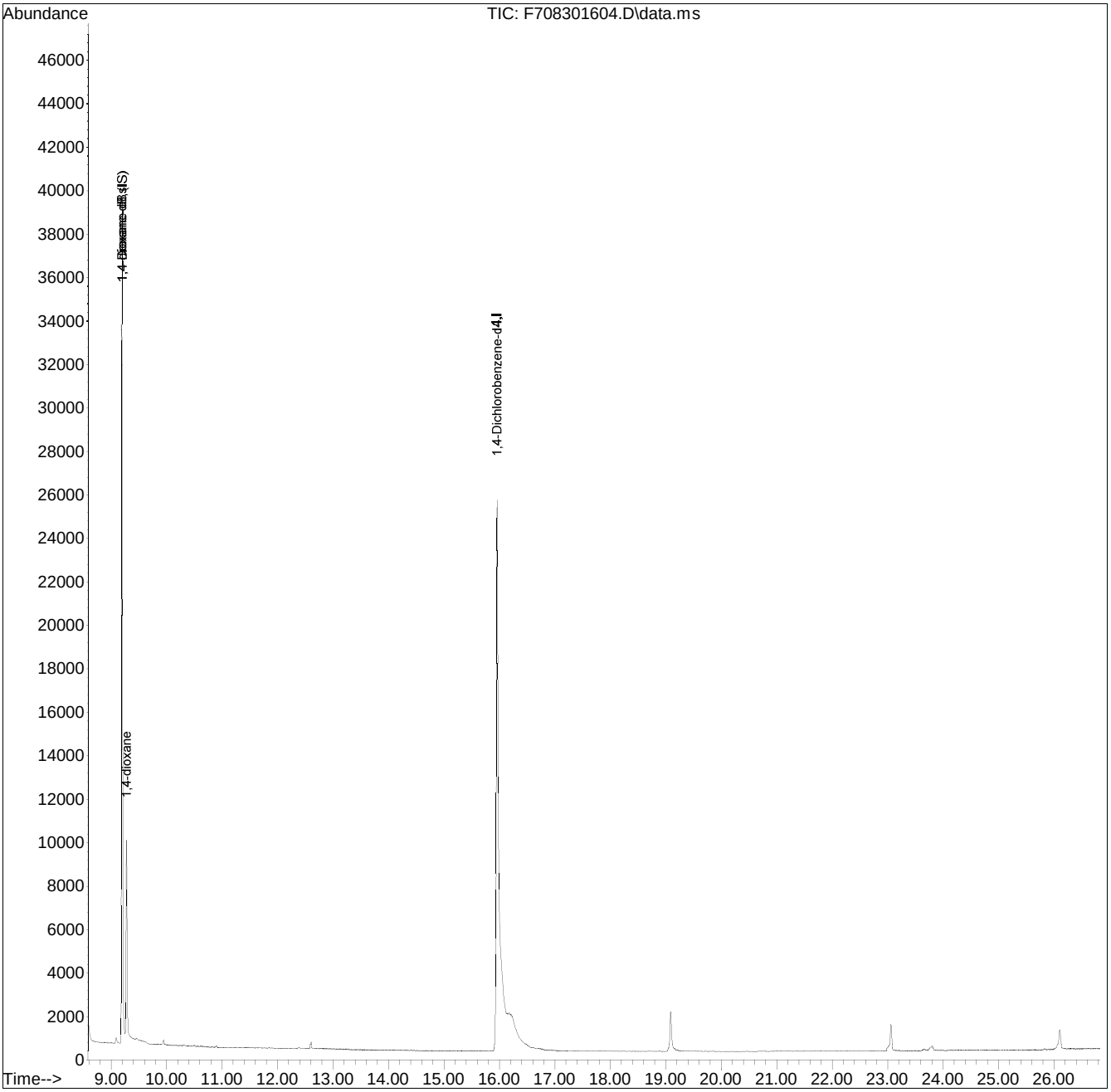
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301604.D
Acq On : 30 Aug 2016 03:38 pm
Operator : BNA7:WR
Sample : I708301603
Misc : WG927778,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 14:55:29 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA7\2016\	QMethod	: 14DIOX0830BNA7.M
Data File	: F708301604.D	Operator	: BNA7:WR
Date Inj'd	: 8/30/2016 3:38 pm	Instrument	: BNA7
Sample	: I708301603	Quant Date	: 8/31/2016 2:55 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301605.D
Acq On : 30 Aug 2016 04:20 pm
Operator : BNA7:WR
Sample : I708301604
Misc : WG927778,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 31 14:55:33 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.198	64	21567	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.958	152	50783	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.198	64	21567	504.130	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 100.83%			
Target Compounds						Qvalue
2) 1,4-dioxane	9.275	88	30761	497.606	ng/mL	95

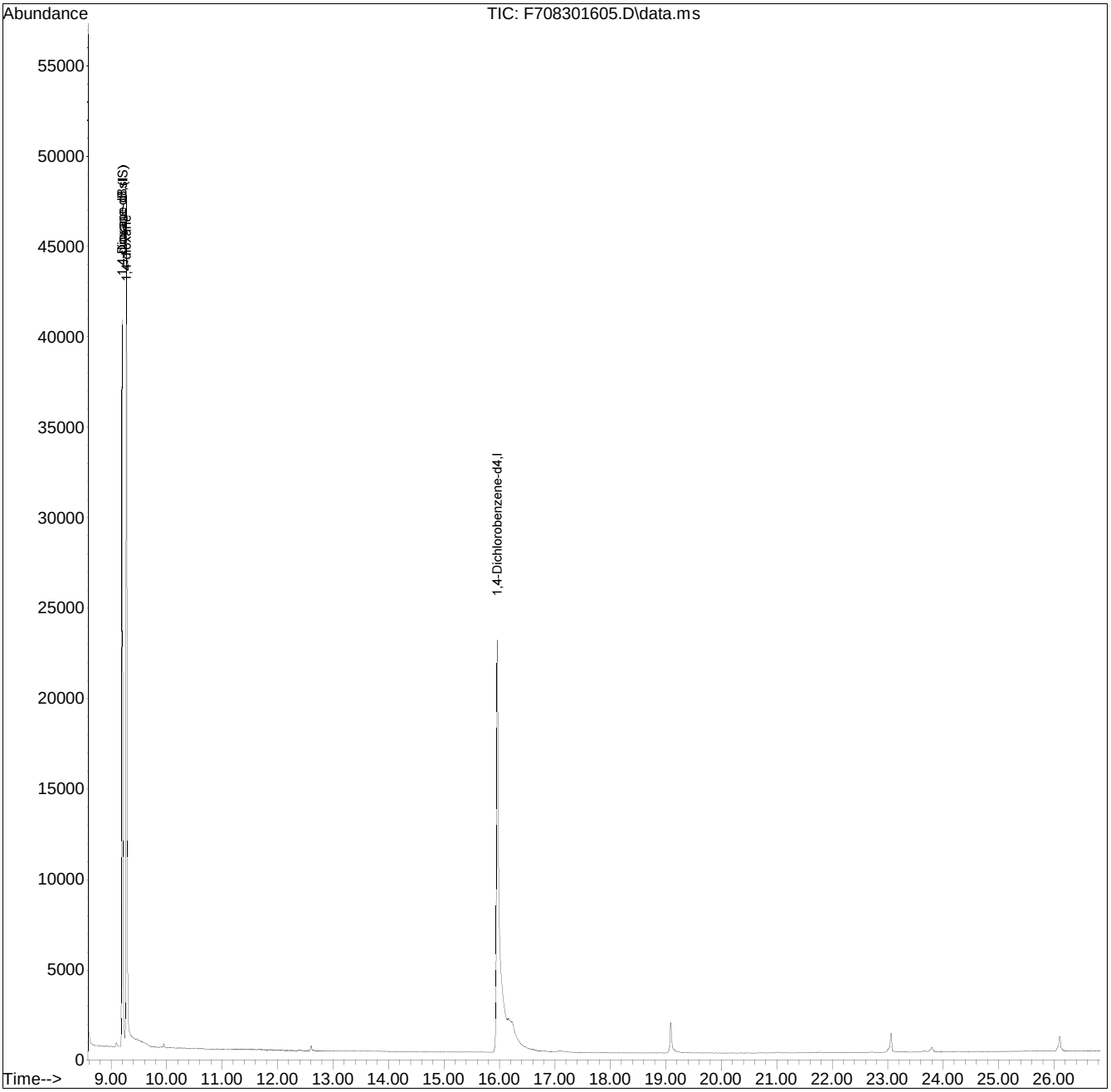
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301605.D
Acq On : 30 Aug 2016 04:20 pm
Operator : BNA7:WR
Sample : I708301604
Misc : WG927778,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 31 14:55:33 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA7\2016\	QMethod	: 14DIOX0830BNA7.M
Data File	: F708301605.D	Operator	: BNA7:WR
Date Inj'd	: 8/30/2016 4:20 pm	Instrument	: BNA7
Sample	: I708301604	Quant Date	: 8/31/2016 2:55 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301606.D
Acq On : 30 Aug 2016 05:02 pm
Operator : BNA7:WR
Sample : I708301605
Misc : WG927778,MSAK46
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 31 14:55:38 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

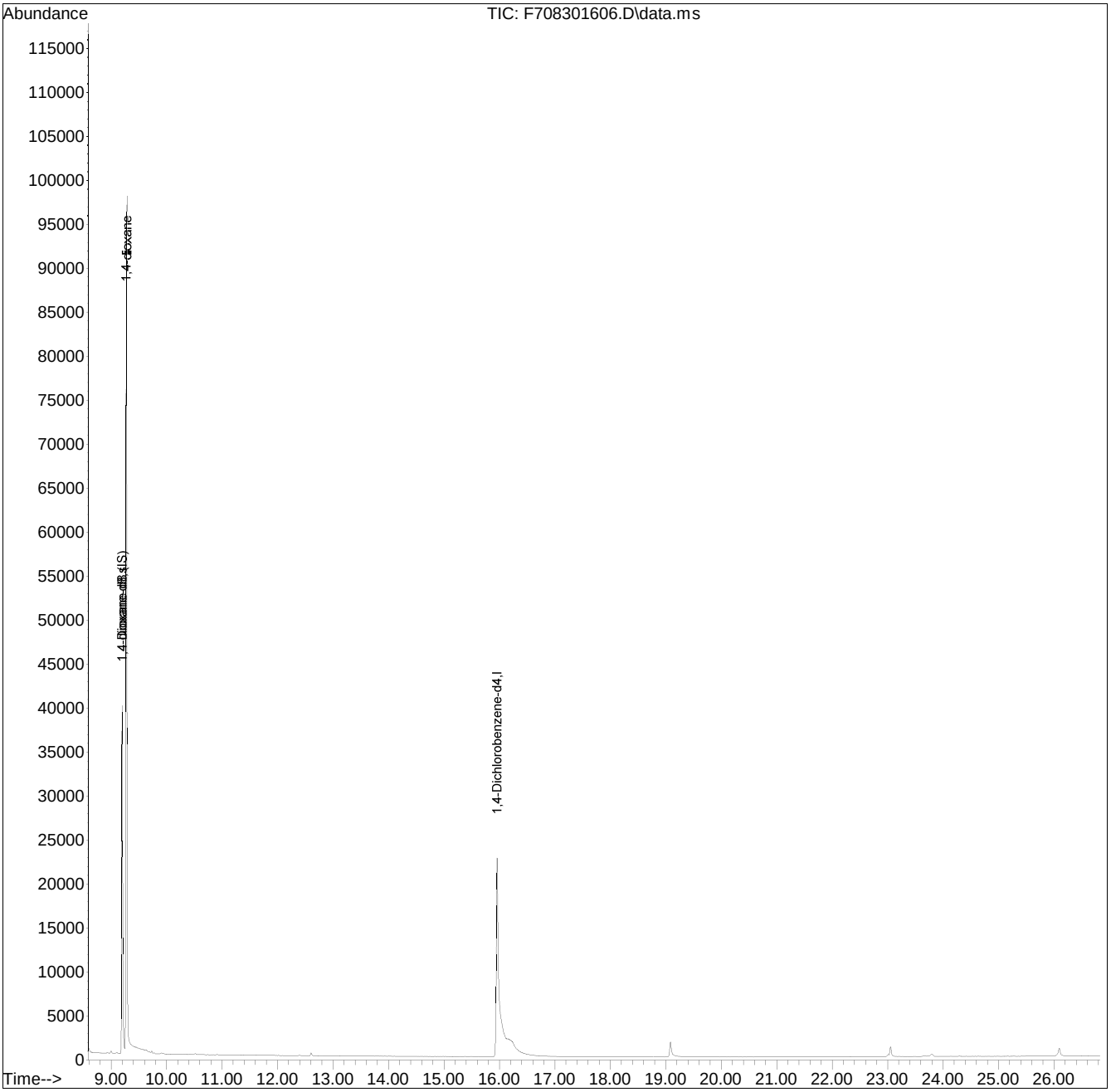
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.198	64	21123	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.958	152	49120M4	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.198	64	21123	510.468	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.09%			
Target Compounds						Qvalue
2) 1,4-dioxane	9.273	88	62641	1034.613	ng/mL	95

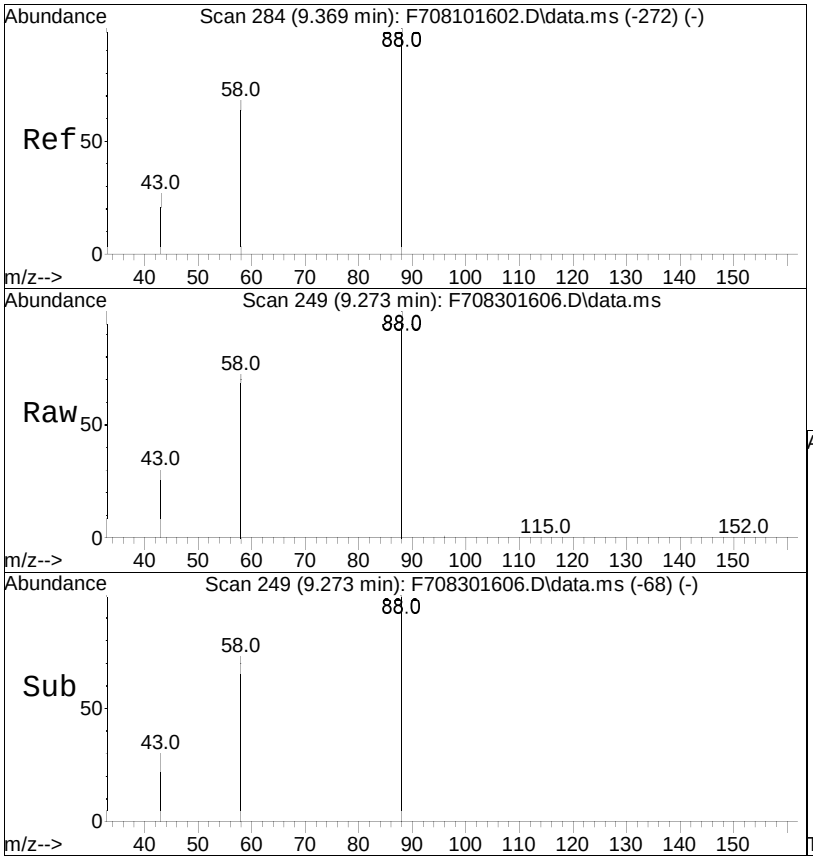
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301606.D
Acq On : 30 Aug 2016 05:02 pm
Operator : BNA7:WR
Sample : I708301605
Misc : WG927778,MSAK46
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 31 14:55:38 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

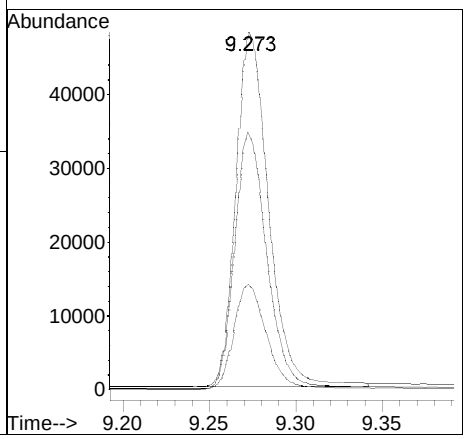




#2
1,4-dioxane
Concen: 1034.61 ng/mL
RT: 9.273 min Scan# 249
Delta R.T. 0.000 min
Lab File: F708301606.D
Acq: 30 Aug 2016 05:02 pm

Tgt Ion: 88 Resp: 62641

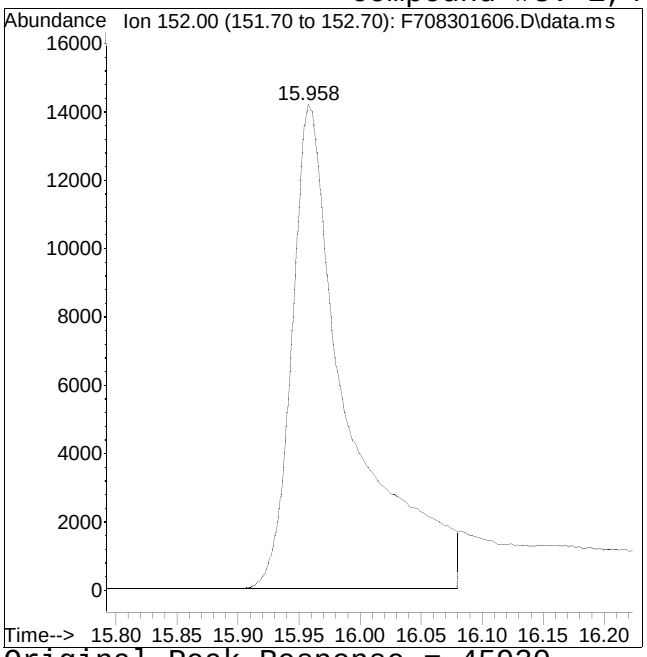
Ion	Ratio	Lower	Upper
88	100		
58	72.5	62.1	93.1
43	29.3	24.4	36.6



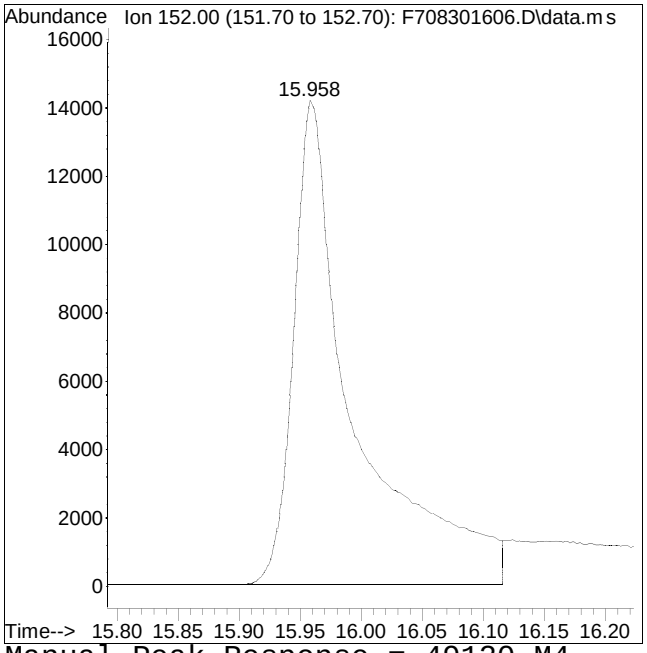
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA7\2016\ QMethod : 14DIOX0830BNA7.M
Data File : F708301606.D Operator : BNA7:WR
Date Inj'd : 8/30/2016 5:02 pm Instrument : BNA7
Sample : I708301605 Quant Date : 8/31/2016 2:55 pm

Compound #3: 1,4-Dichlorobenzene-d4



Original Peak Response = 45930



Manual Peak Response = 49120 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301607.D
Acq On : 30 Aug 2016 05:43 pm
Operator : BNA7:WR
Sample : I708301606
Misc : WG927778,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 31 14:55:41 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.198	64	21883	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.958	152	50851	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.198	64	21883	510.833	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.17%			
Target Compounds						Qvalue
2) 1,4-dioxane	9.273	88	297405	4741.505	ng/mL	94

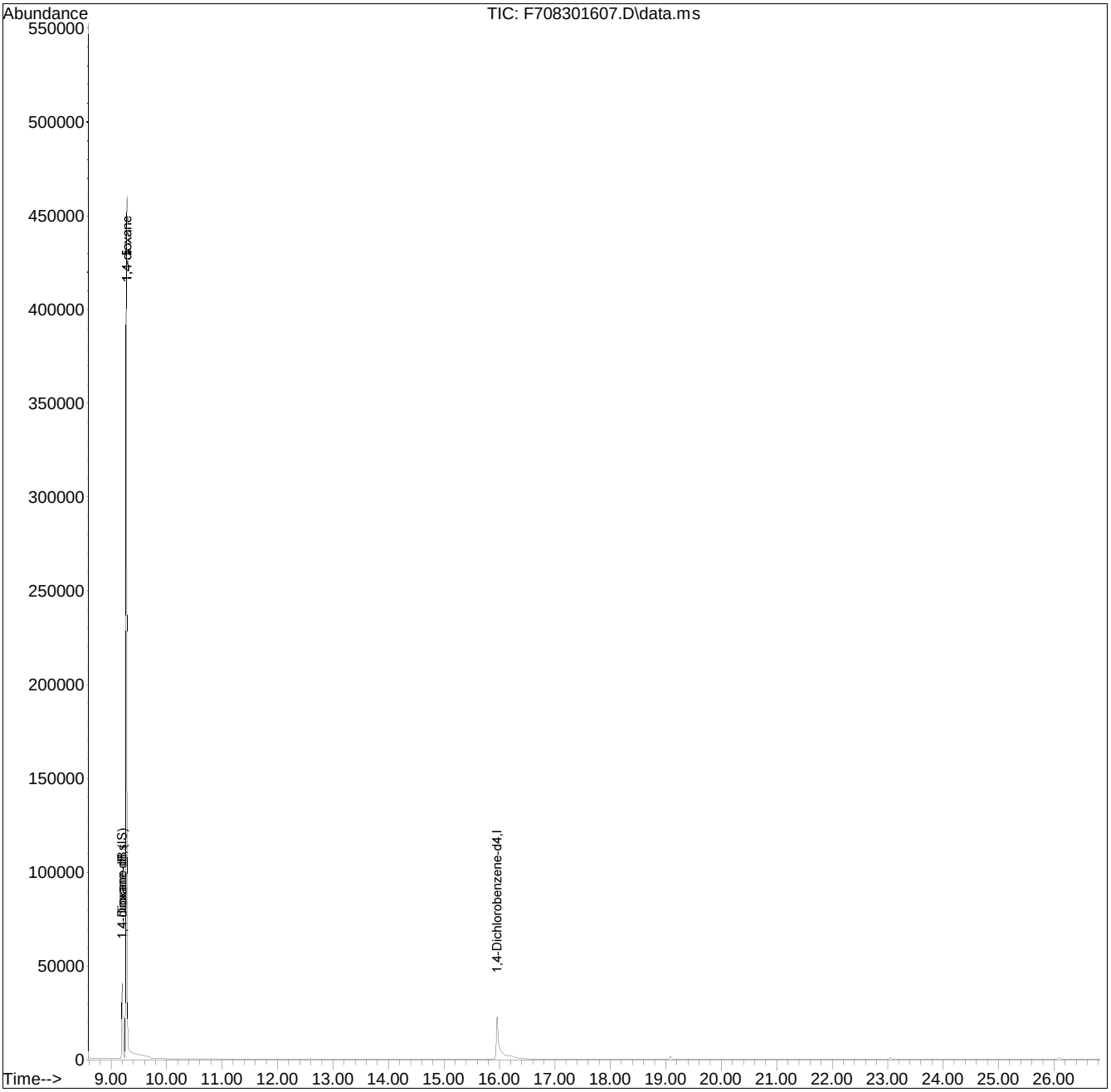
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301607.D
Acq On : 30 Aug 2016 05:43 pm
Operator : BNA7:WR
Sample : I708301606
Misc : WG927778,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 31 14:55:41 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA7\2016\	QMethod	: 14DIOX0830BNA7.M
Data File	: F708301607.D	Operator	: BNA7:WR
Date Inj'd	: 8/30/2016 5:43 pm	Instrument	: BNA7
Sample	: I708301606	Quant Date	: 8/31/2016 2:55 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301608.D
Acq On : 30 Aug 2016 06:25 pm
Operator : BNA7:WR
Sample : I708301607
Misc : WG927778,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 31 14:55:46 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.195	64	21453	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.958	152	51341	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.195	64	21453	496.015	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 99.20%			
Target Compounds						Qvalue
2) 1,4-dioxane	9.270	88	571490	9293.845	ng/mL	96

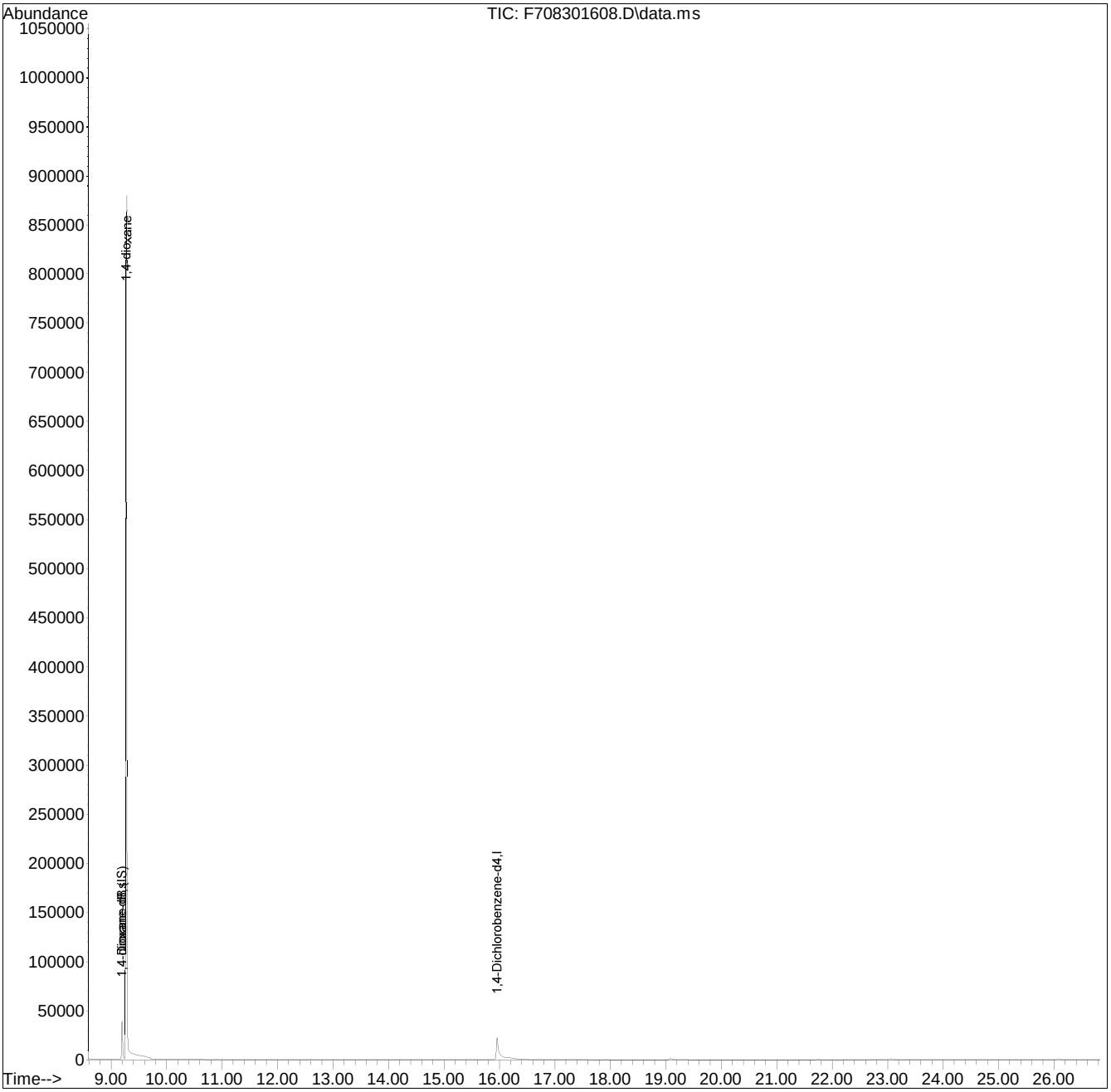
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301608.D
Acq On : 30 Aug 2016 06:25 pm
Operator : BNA7:WR
Sample : I708301607
Misc : WG927778,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 31 14:55:46 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA7\2016\	QMethod	: 14DIOX0830BNA7.M
Data File	: F708301608.D	Operator	: BNA7:WR
Date Inj'd	: 8/30/2016 6:25 pm	Instrument	: BNA7
Sample	: I708301607	Quant Date	: 8/31/2016 2:55 pm

There are no manual integrations or false positives in this file.

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301609.D
Acq On : 30 Aug 2016 07:07 pm
Operator : BNA7:WR
Sample : CQ708301601
Misc : WG927778,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 31 14:55:49 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	100	0.00
2	1,4-dioxane	1.433	1.394	2.7	94	0.00
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00
4 s	1,4-dioxane-d8	0.421	0.412	2.1	99	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301609.D
Acq On : 30 Aug 2016 07:07 pm
Operator : BNA7:WR
Sample : CQ708301601
Misc : WG927778,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 31 14:55:49 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.190	64	21086	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.961	152	51136	500.000	ng/mL	# 0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.190	64	21086	489.484	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 97.90%			
Target Compounds						Qvalue
2) 1,4-dioxane	9.267	88	58775	972.463	ng/mL	95

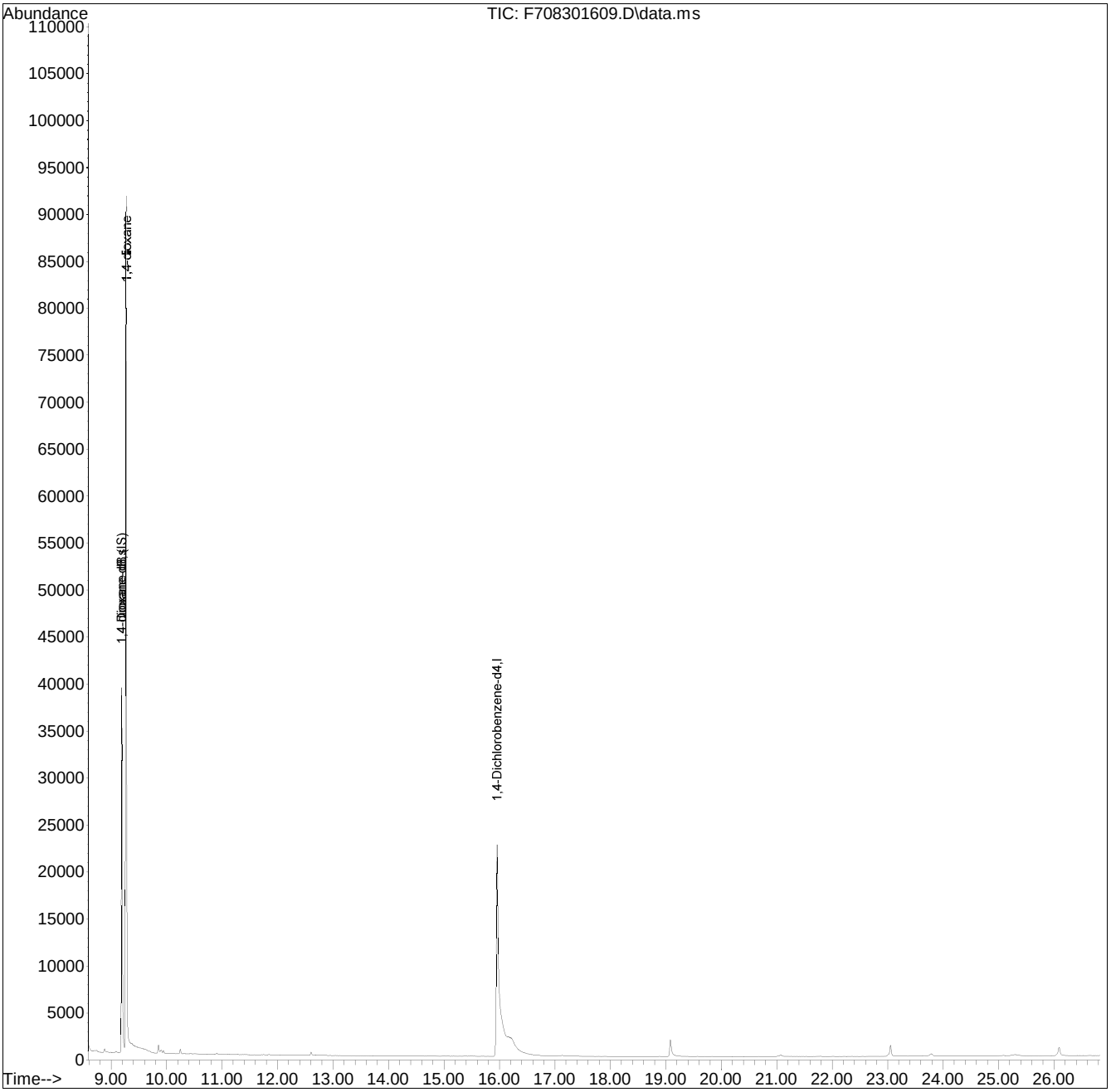
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug30\
Data File : F708301609.D
Acq On : 30 Aug 2016 07:07 pm
Operator : BNA7:WR
Sample : CQ708301601
Misc : WG927778,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 31 14:55:49 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug30\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA7\2016\	QMethod	: 14DIOX0830BNA7.M
Data File	: F708301609.D	Operator	: BNA7:WR
Date Inj'd	: 8/30/2016 7:07 pm	Instrument	: BNA7
Sample	: CQ708301601	Quant Date	: 8/31/2016 2:55 pm

There are no manual integrations or false positives in this file.

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 20 2016, 04:03 pm

Work Group: WG926894 for Department: 2 Organic Preparation

Created: 29-AUG-16 Due: Operator: ABS

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1626902-01	RW-4A(62-72)-082516	S	A2-1,4-DIOXANE-SIM	WATER	DONE	U	0901	0902	S0	Amber-A.5
L1626902-02	RW-13(71-91)-082516	S	A2-1,4-DIOXANE-SIM	WATER	DONE	U	0901	0902	S0	Amber-A.5
L1626902-03	RW-12(130-140)-08251	S	A2-1,4-DIOXANE-SIM	WATER	DONE	U	0901	0902	S0	Amber-A.5
L1626902-04	RW-8(204-214)-082516	S	A2-1,4-DIOXANE-SIM	WATER	DONE	U	0901	0902	S0	Amber-A.5
L1626902-05	RW-8(163-173)-082516	S	A2-1,4-DIOXANE-SIM	WATER	DONE	U	0901	0902	S0	Amber-A.5
L1626902-06	RW-13(100-120)-08251	S	A2-1,4-DIOXANE-SIM	WATER	DONE	U	0901	0902	S0	Amber-A.5
L1626902-07	RW-13(150-170)-08261	S	A2-1,4-DIOXANE-SIM	WATER	DONE	U	0902	0902	S0	Amber-A.5
L1626902-08	DUP-05-082616	S	A2-1,4-DIOXANE-SIM	WATER	DONE	U	0902	0902	S0	Amber-A.5
L1626902-09	RW-10(185-195)-08261	S	A2-1,4-DIOXANE-SIM	WATER	DONE	U	0902	0902	S0	Amber-A.5
L1626902-10	RW-10A(75-85)-082616	S	A2-1,4-DIOXANE-SIM	WATER	DONE	U	0902	0902	S0	Amber-A.5
WG926894-1	Laboratory Method Bl	S	A2-1,4-DIOXANE-SIM	WATER	DONE	U				
WG926894-2	Laboratory Control S	S	A2-1,4-DIOXANE-SIM	WATER	DONE	U				
WG926894-3	LCS Duplicate	S	A2-1,4-DIOXANE-SIM	WATER	DONE	U				

Comments:

WG926894-3 WG926894-2

Sequence Logs

Analysis log File

Total Files Reported in Log : 9
Log Generated From Directory: O:\Organics\DATA\BNA7\2016\Aug\Aug30\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F708301601.D	14dioxdftppb	T708301601	WG926975,MSAJ70	8/30/2016 1:22 pm
2	F708301602.D	14dioxbna7.M	I708301601	WG926975,MSAJ77	8/30/2016 2:14 pm
3	F708301603.D	14dioxbna7.M	I708301602	WG927778,MSAJ78	8/30/2016 2:56 pm
4	F708301604.D	14dioxbna7.M	I708301603	WG927778,MSAJ79	8/30/2016 3:38 pm
5	F708301605.D	14dioxbna7.M	I708301604	WG927778,MSAJ80	8/30/2016 4:20 pm
6	F708301606.D	14dioxbna7.M	I708301605	WG927778,MSAK46	8/30/2016 5:02 pm
7	F708301607.D	14dioxbna7.M	I708301606	WG927778,MSAJ82	8/30/2016 5:43 pm
8	F708301608.D	14dioxbna7.M	I708301607	WG927778,MSAJ76	8/30/2016 6:25 pm
9	F708301609.D	14dioxbna7.M	CQ708301601	WG927778,MSAJ49	8/30/2016 7:07 pm

Analysis log File

Total Files Reported in Log : 29
Log Generated From Directory: O:\Organics\DATA\BNA7\2016\Aug\Aug31\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F708311601.D	14dioxdftppb			8/31/2016 8:50 am
2	F708311602.D	14dioxbna7.M			8/31/2016 10:09 am
3	F708311603.D	14dioxdftppb	WG927825-1	WG927825,MSAJ70	8/31/2016 4:22 pm
4	F708311604.D	14dioxbna7.M	WG927825-3	WG927825,FRAX49	8/31/2016 5:15 pm
5	F708311605.D	14dioxbna7.M	WG926918-1	WG927825,WG926918..	8/31/2016 5:57 pm
6	F708311606.D	14dioxbna7.M	WG926918-2	WG927825,WG926918..	8/31/2016 6:39 pm
7	F708311607.D	14dioxbna7.M	WG926918-3	WG927825,WG926918..	8/31/2016 7:21 pm
8	F708311608.D	14dioxbna7.M	L1626902-01	WG927825,WG926894..	8/31/2016 8:03 pm
9	F708311609.D	14dioxbna7.M	L1626902-02	WG927825,WG926894..	8/31/2016 8:45 pm
10	F708311610.D	14dioxbna7.M	L1626902-03	WG927825,WG926894..	8/31/2016 9:27 pm
11	F708311611.D	14dioxbna7.M	L1626902-04	WG927825,WG926894..	8/31/2016 10:09 pm
12	F708311612.D	14dioxbna7.M	L1626902-05	WG927825,WG926894..	8/31/2016 10:51 pm
13	F708311613.D	14dioxbna7.M	L1626902-06	WG927825,WG926894..	8/31/2016 11:33 pm
14	F708311614.D	14dioxbna7.M	L1626902-07	WG927825,WG926894..	9/1/2016 12:15 am
15	F708311615.D	14dioxbna7.M	L1626902-08	WG927825,WG926894..	9/1/2016 12:57 am
16	F708311616.D	14dioxbna7.M	L1626902-09	WG927825,WG926894..	9/1/2016 1:39 am
17	F708311617.D	14dioxdftppb	WG927825-4	WG927825,MSAJ70	9/1/2016 2:19 am
18	F708311618.D	14dioxbna7.M	WG927825-6	WG927825,FRAX49	9/1/2016 3:12 am
19	F708311619.D	14dioxbna7.M	L1626902-10	WG927825,WG926894..	9/1/2016 3:54 am
20	F708311620.D	14dioxbna7.M	L1626970-01	WG927825,WG926918..	9/1/2016 4:36 am
21	F708311621.D	14dioxbna7.M	L1626970-02	WG927825,WG926918..	9/1/2016 5:18 am
22	F708311622.D	14dioxbna7.M	L1626970-03	WG927825,WG926918..	9/1/2016 6:00 am
23	F708311623.D	14dioxbna7.M	L1626970-04	WG927825,WG926918..	9/1/2016 6:42 am
24	F708311624.D	14dioxbna7.M	L1626970-05	WG927825,WG926918..	9/1/2016 7:24 am
25	F708311625.D	14dioxbna7.M	L1626970-06	WG927825,WG926918..	9/1/2016 8:06 am
26	F708311626.D	14dioxbna7.M	L1626970-07	WG927825,WG926918..	9/1/2016 8:48 am
27	F708311627.D	14dioxbna7.M	L1626970-08	WG927825,WG926918..	9/1/2016 9:34 am
28	F708311628.D	14dioxbna7.M	L1626970-09		9/1/2016 10:16 am
29	F708311629.D	14dioxbna7.M	L1626970-10		9/1/2016 10:58 am

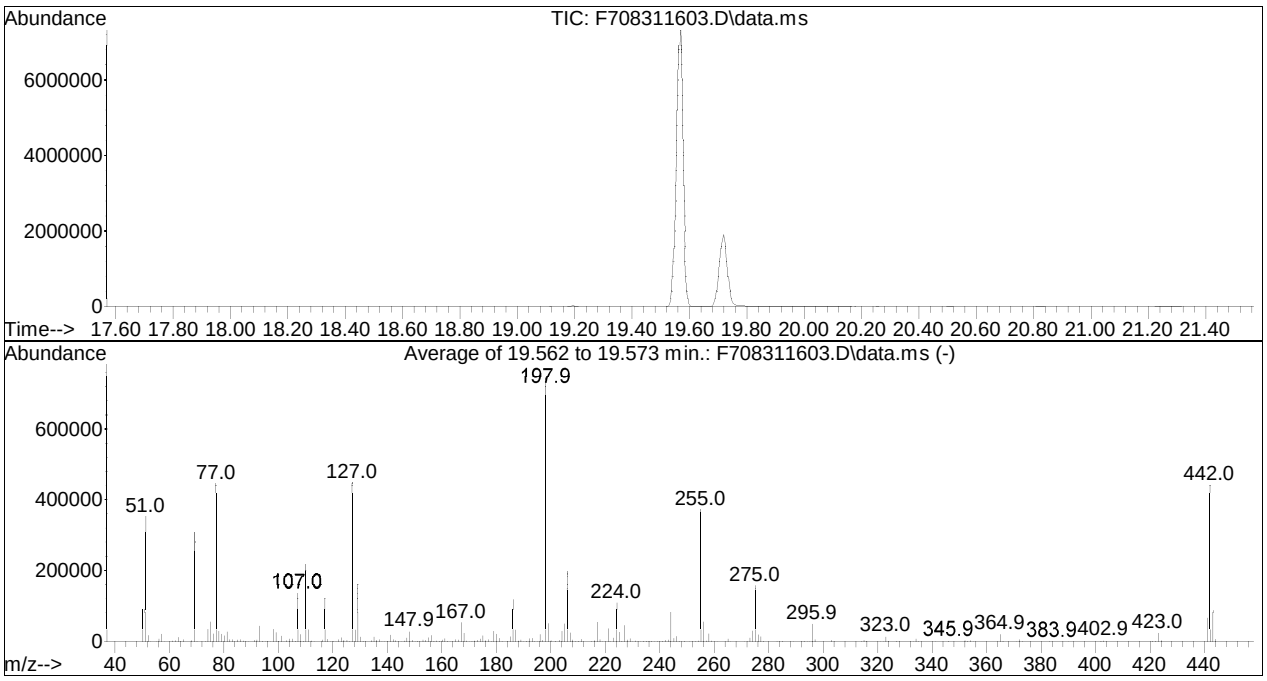
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311603.D
Acq On : 31 Aug 2016 04:22 pm
Operator : BNA7:WR
Sample : WG927825-1
Misc : WG927825,MSAJ70
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Title : Semivolatiles by GC/MS
Last Update : Thu Sep 01 09:09:55 2016



AutoFind: Scans 1918, 1919, 1920; Background Corrected with Scan 1908

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	47.4	353058	PASS
68	69	0.00	2	1.5	4608	PASS
70	69	0.00	2	0.6	1700	PASS
127	198	10	80	60.1	447829	PASS
197	198	0.00	2	0.7	5284	PASS
198	198	100	100	100.0	745515	PASS
199	198	5	9	6.7	50101	PASS
275	198	10	60	21.0	156843	PASS
365	198	1	100	2.8	20536	PASS
441	442	0.01	24	14.6	64341	PASS
442	198	50	100	59.3	442091	PASS
443	442	15	24	19.5	86213	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311604.D
Acq On : 31 Aug 2016 05:15 pm
Operator : BNA7:WR
Sample : WG927825-3
Misc : WG927825,FRAX49
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 01 08:42:40 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	92	0.00
2	1,4-dioxane	1.433	1.438	-0.3	89	0.00
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	100	0.00
4 s	1,4-dioxane-d8	0.421	0.394	6.4	91	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311604.D
Acq On : 31 Aug 2016 05:15 pm
Operator : BNA7:WR
Sample : WG927825-3
Misc : WG927825,FRAX49
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 01 08:42:40 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.198	64	19398	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.966	152	49205	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.198	64	19398	467.971	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 93.59%			
Target Compounds						Qvalue
2) 1,4-dioxane	9.275	88	55773	1003.095	ng/mL	95

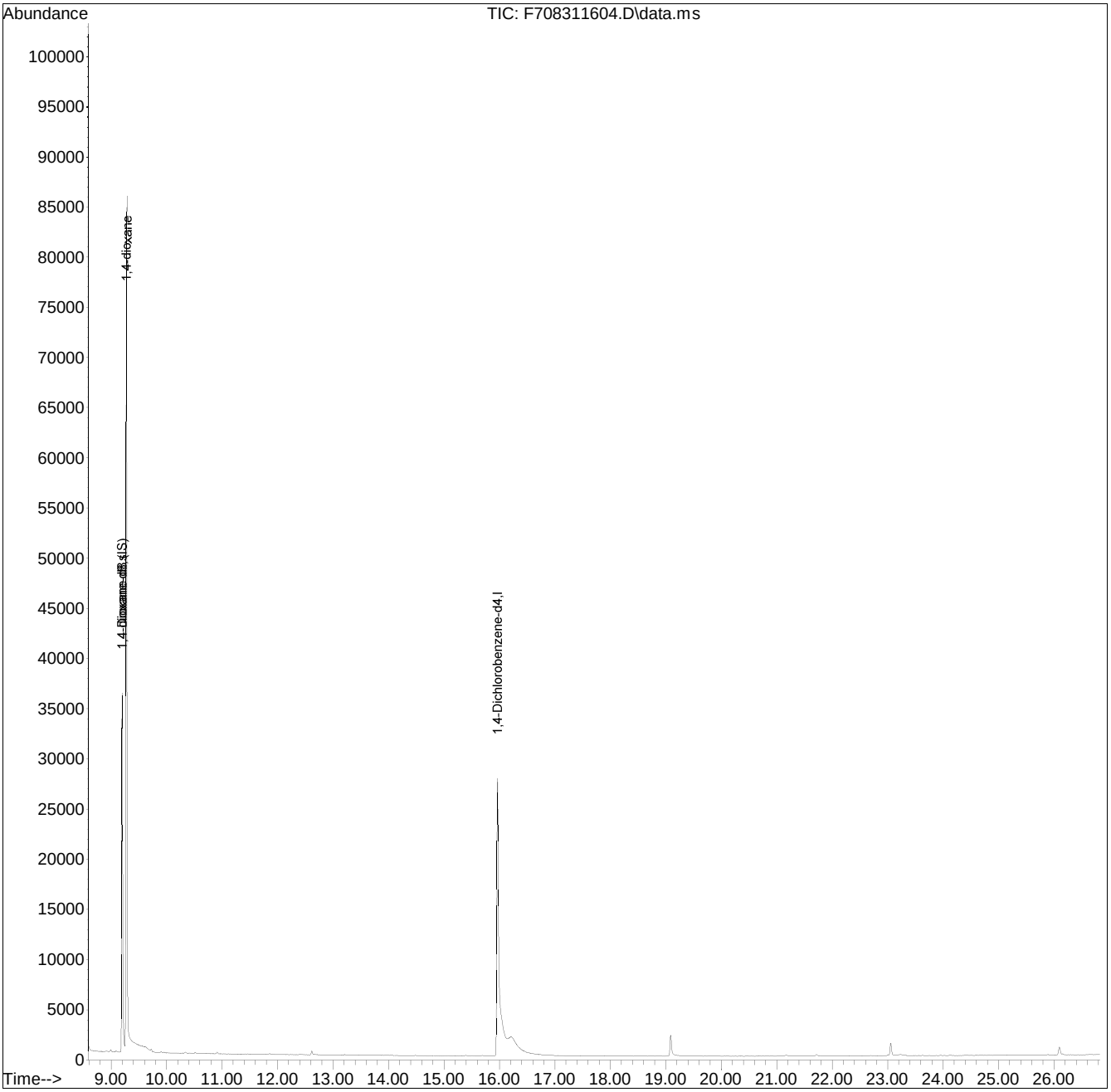
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311604.D
Acq On : 31 Aug 2016 05:15 pm
Operator : BNA7:WR
Sample : WG927825-3
Misc : WG927825,FRAX49
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 01 08:42:40 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311608.D
Acq On : 31 Aug 2016 08:03 pm
Operator : BNA7:WR
Sample : L1626902-01
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 01 09:12:54 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.228	64	4617M4	500.000	ng/mL	0.03
3) 1,4-Dichlorobenzene-d4	15.969	152	45241	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.228	64	4611M4	120.986	ng/mL	0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 24.20%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

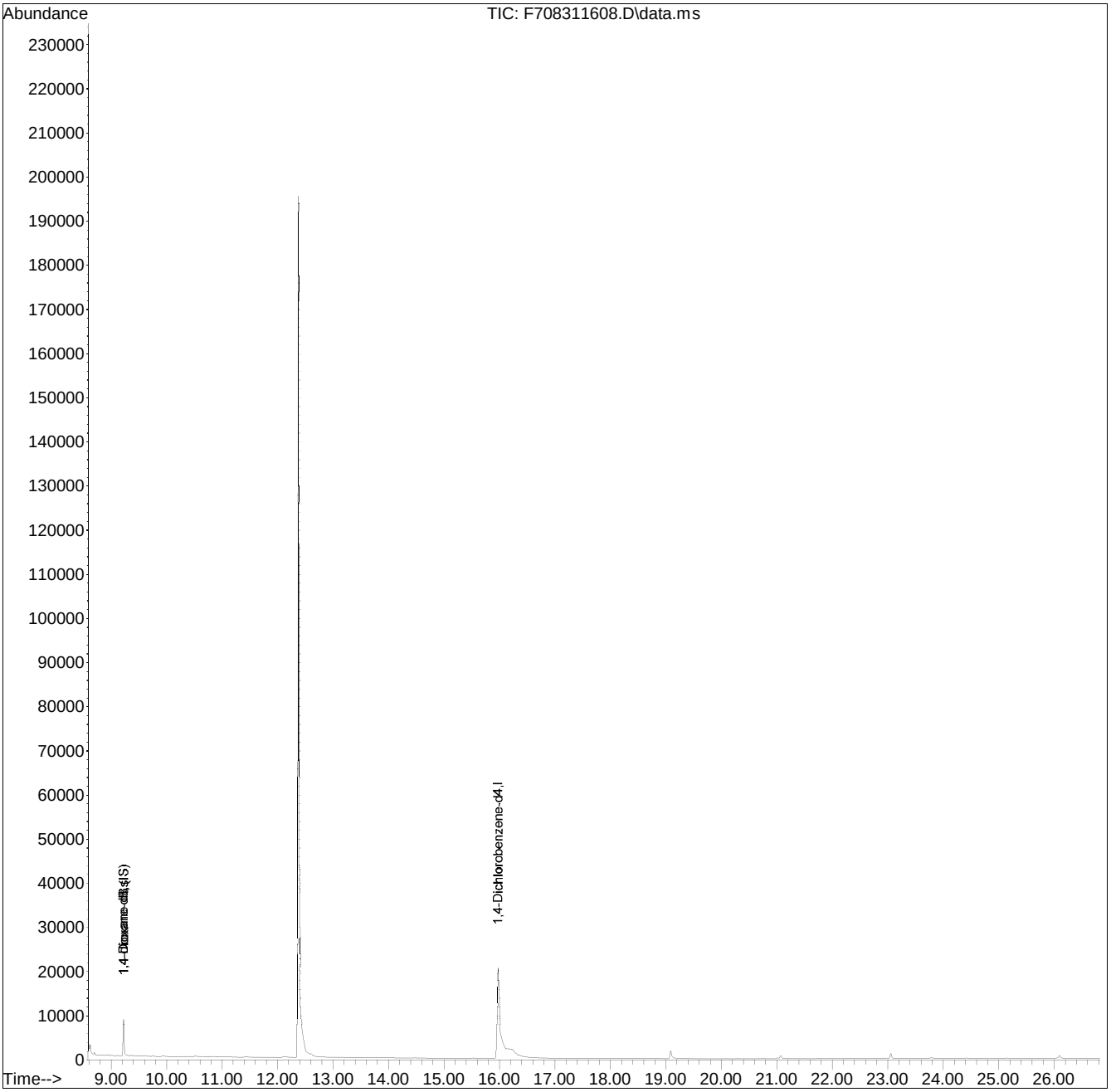
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311608.D
Acq On : 31 Aug 2016 08:03 pm
Operator : BNA7:WR
Sample : L1626902-01
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 01 09:12:54 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311609.D
Acq On : 31 Aug 2016 08:45 pm
Operator : BNA7:WR
Sample : L1626902-02
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 01 09:14:45 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.223	64	3820M4	500.000	ng/mL	0.03
3) 1,4-Dichlorobenzene-d4	15.969	152	43011	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.223	64	3825M4	105.566	ng/mL	0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 21.11%			
Target Compounds						Qvalue
2) 1,4-dioxane	9.309	88	225M4	20.549	ng/mL	

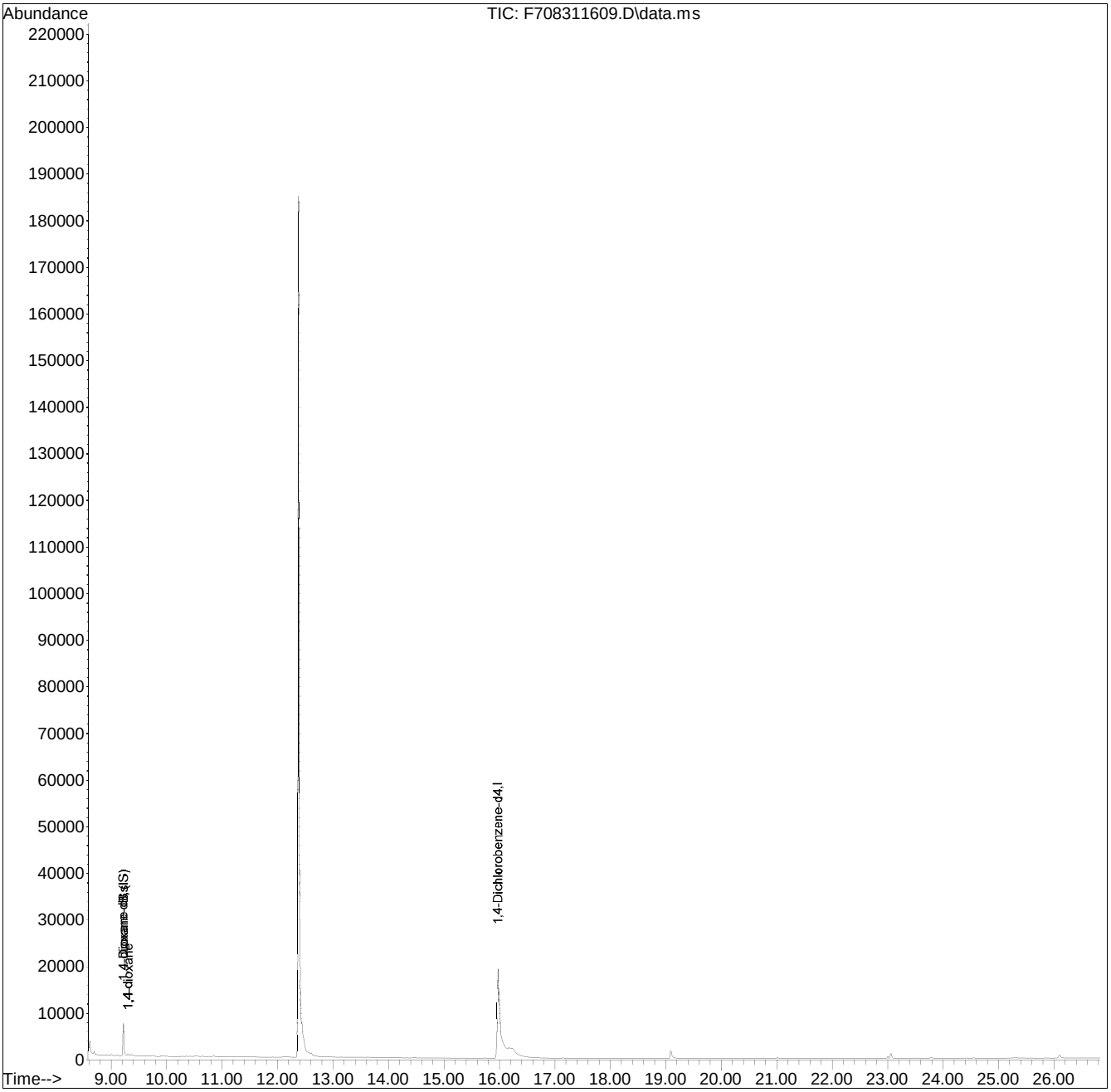
(#) = qualifier out of range (m) = manual integration (+) = signals summed

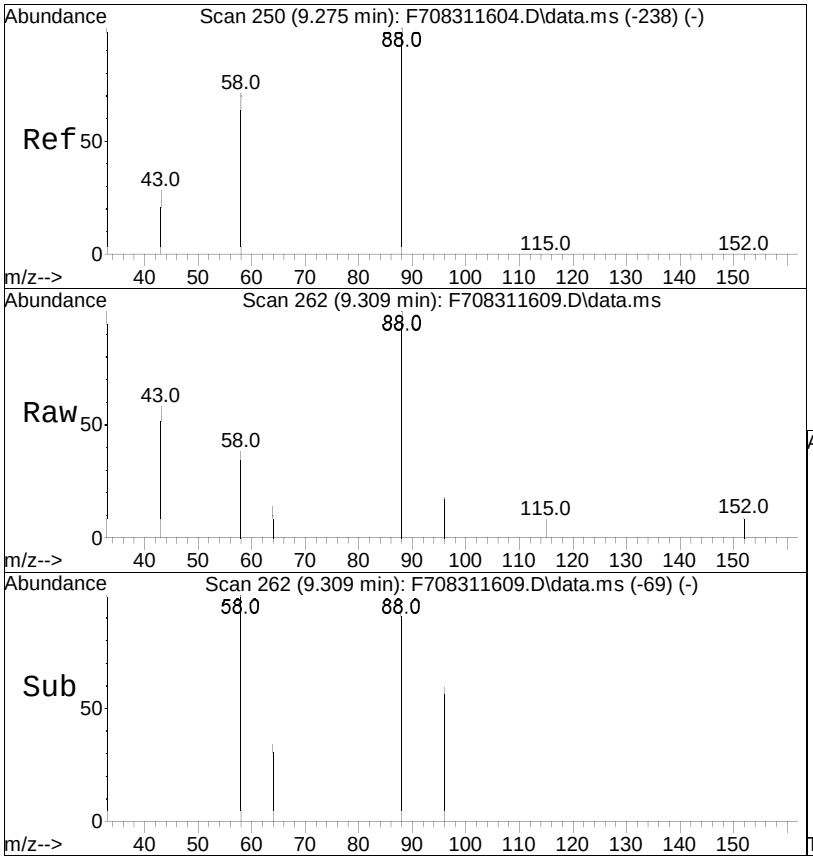
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311609.D
Acq On : 31 Aug 2016 08:45 pm
Operator : BNA7:WR
Sample : L1626902-02
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 01 09:14:45 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

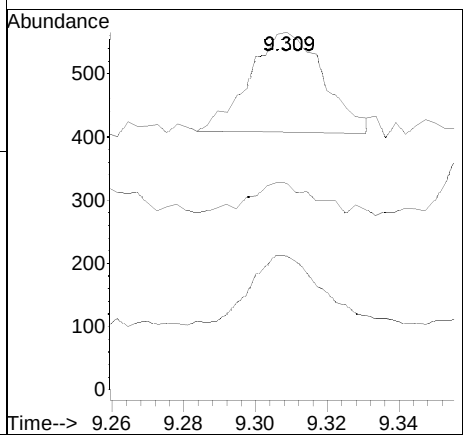




#2
1,4-dioxane
Concen: 20.55 ng/mL M4
RT: 9.309 min Scan# 262
Delta R.T. 0.033 min
Lab File: F708311609.D
Acq: 31 Aug 2016 08:45 pm

Tgt Ion: 88 Resp: 225

Ion	Ratio	Lower	Upper
88	100		
58	67.6	62.1	93.1
43	17.8	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311610.D
Acq On : 31 Aug 2016 09:27 pm
Operator : BNA7:WR
Sample : L1626902-03
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 01 09:15:58 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

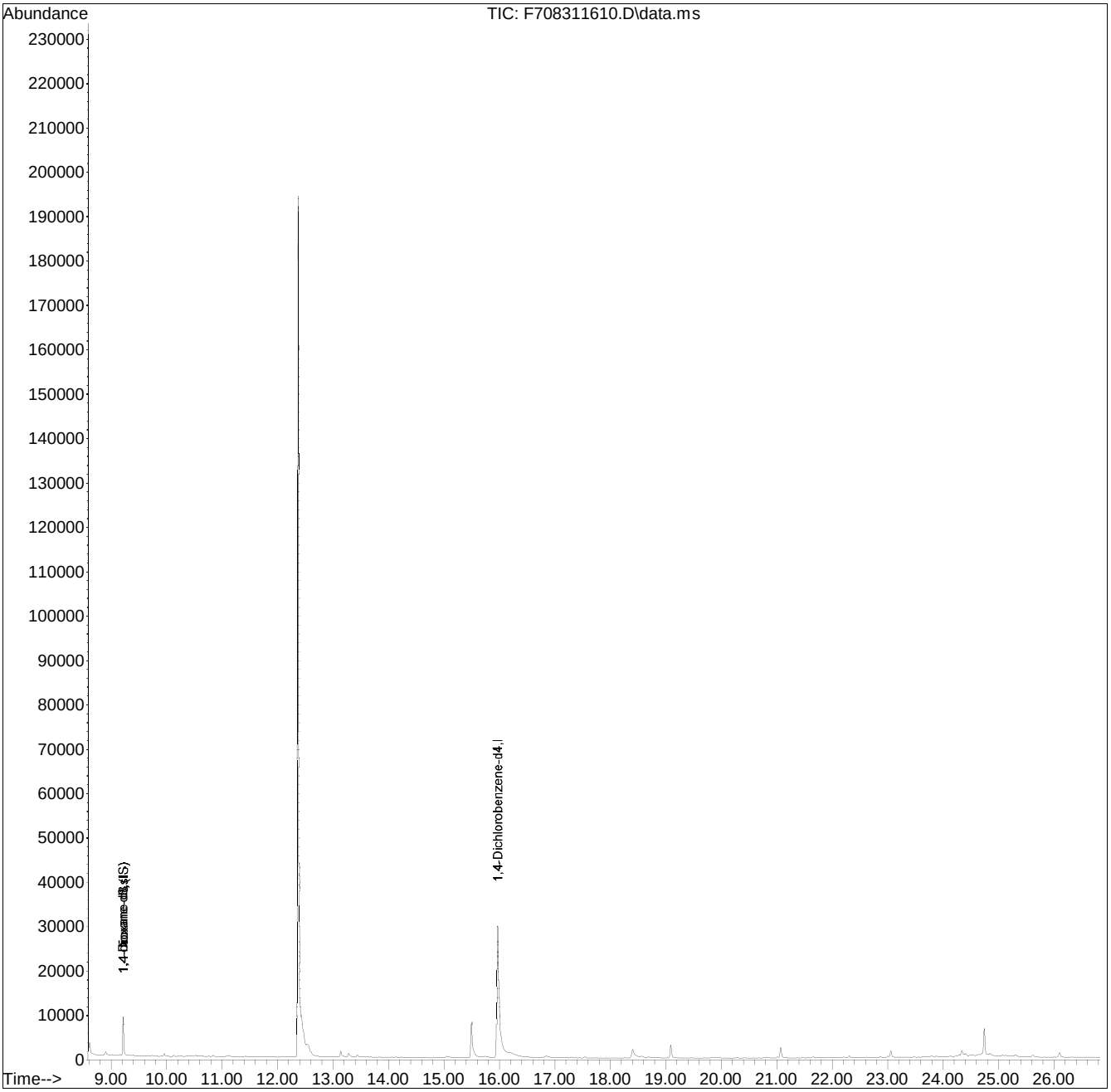
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.223	64	4713	500.000	ng/mL	0.02
3) 1,4-Dichlorobenzene-d4	15.966	152	55584M4	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.223	64	4713	100.651	ng/mL	0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 20.13%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311610.D
Acq On : 31 Aug 2016 09:27 pm
Operator : BNA7:WR
Sample : L1626902-03
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 01 09:15:58 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311611.D
Acq On : 31 Aug 2016 10:09 pm
Operator : BNA7:WR
Sample : L1626902-04
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 01 09:16:42 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.228	64	4277	500.000	ng/mL	0.03
3) 1,4-Dichlorobenzene-d4	15.966	152	52177	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.228	64	4277	97.304	ng/mL	0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 19.46%			
Target Compounds						Qvalue
2) 1,4-dioxane	9.317	88	134M4	10.931	ng/mL	

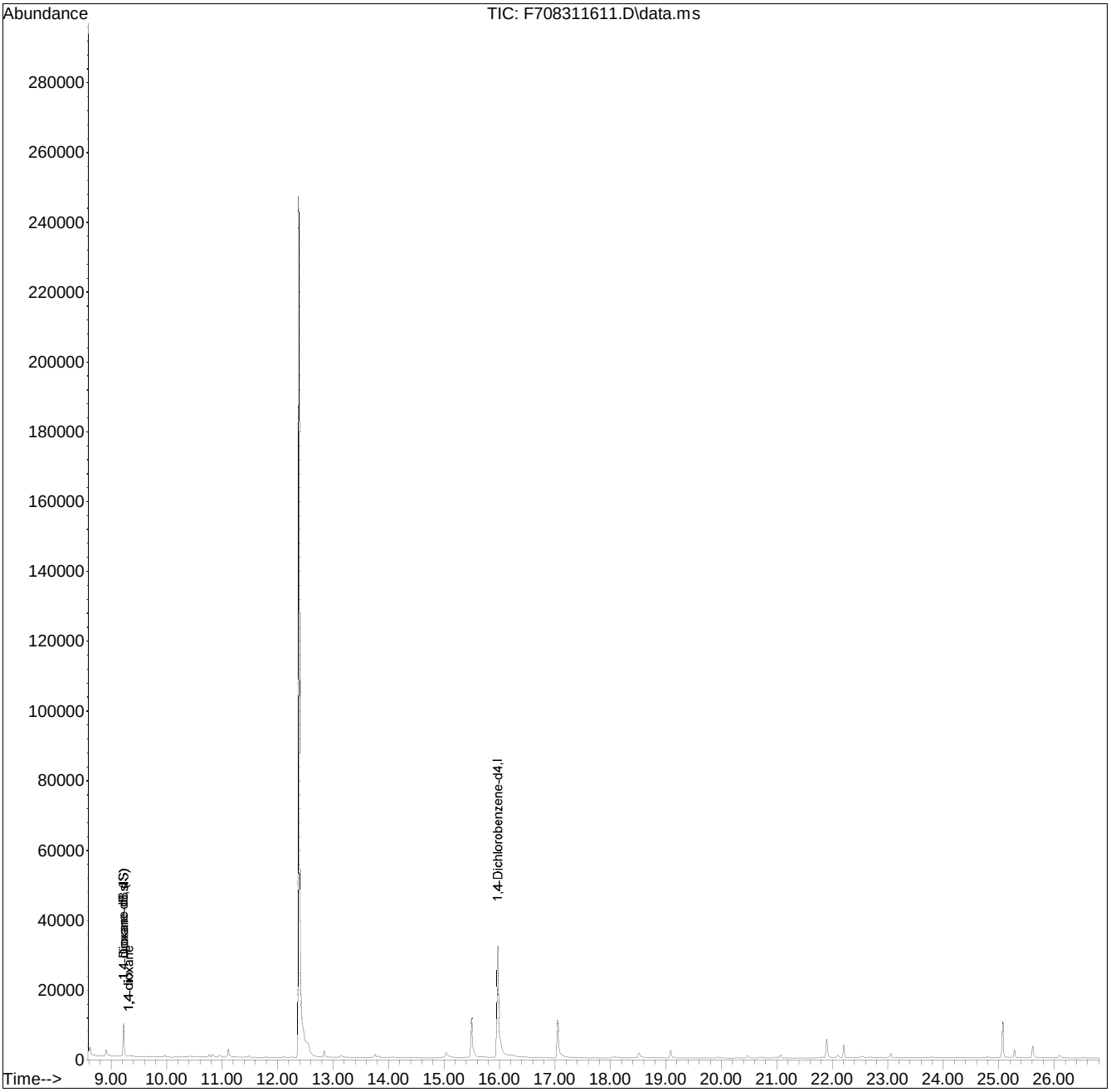
(#) = qualifier out of range (m) = manual integration (+) = signals summed

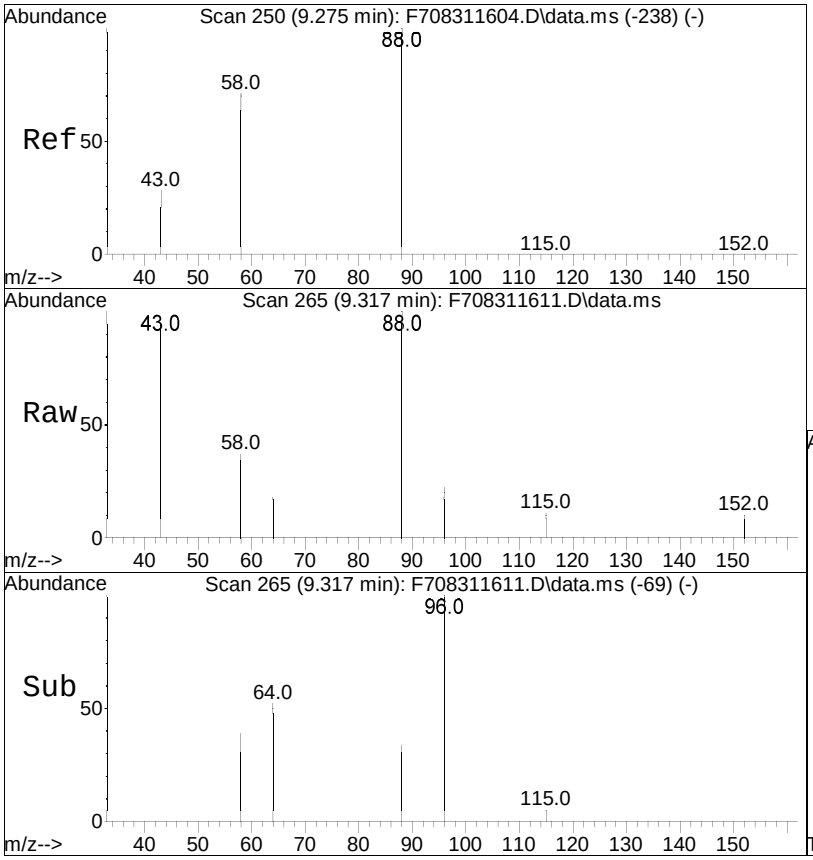
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311611.D
Acq On : 31 Aug 2016 10:09 pm
Operator : BNA7:WR
Sample : L1626902-04
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 01 09:16:42 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

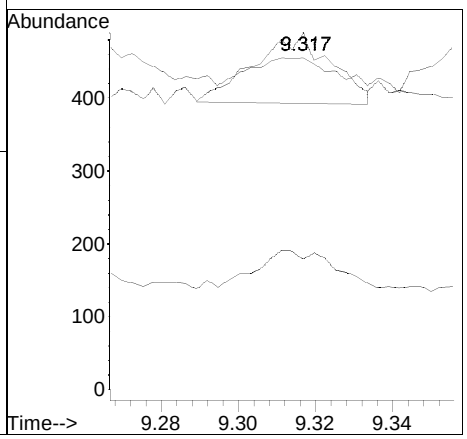




#2
1,4-dioxane
Concen: 10.93 ng/mL M4
RT: 9.317 min Scan# 265
Delta R.T. 0.041 min
Lab File: F708311611.D
Acq: 31 Aug 2016 10:09 pm

Tgt Ion: 88 Resp: 134

Ion	Ratio	Lower	Upper
88	100		
58	29.9	62.1	93.1#
43	46.3	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311612.D
Acq On : 31 Aug 2016 10:51 pm
Operator : BNA7:WR
Sample : L1626902-05
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 01 09:17:23 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.231	64	4626	500.000	ng/mL	0.03
3) 1,4-Dichlorobenzene-d4	15.966	152	62082	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.231	64	4626	88.453	ng/mL	0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 17.69%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

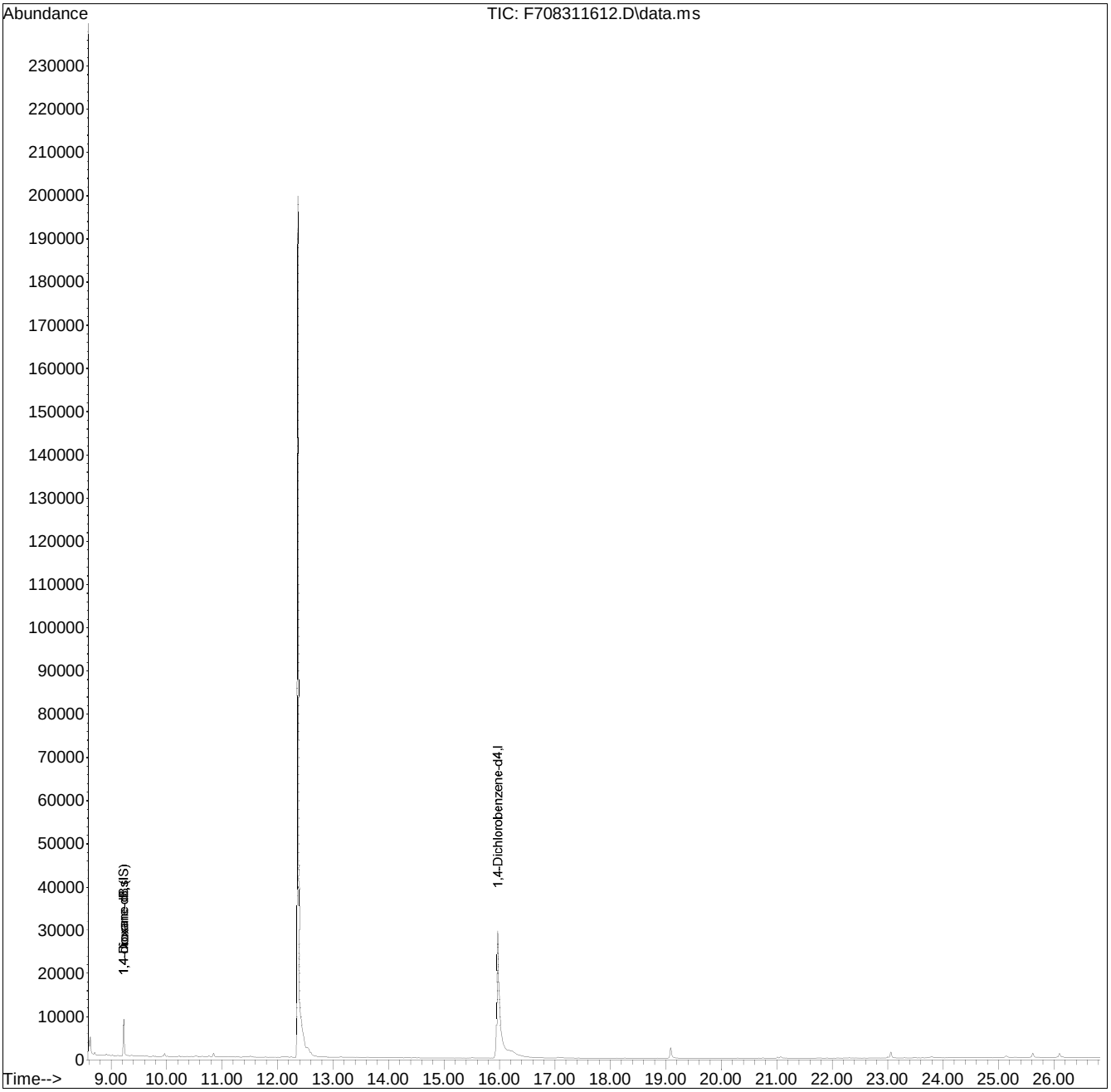
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311612.D
Acq On : 31 Aug 2016 10:51 pm
Operator : BNA7:WR
Sample : L1626902-05
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 01 09:17:23 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311613.D
Acq On : 31 Aug 2016 11:33 pm
Operator : BNA7:WR
Sample : L1626902-06
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 01 09:18:34 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.229	64	4839	500.000	ng/mL	0.03
3) 1,4-Dichlorobenzene-d4	15.964	152	59410M4	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.229	64	4839	96.687	ng/mL	0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 19.34%			
Target Compounds						Qvalue
2) 1,4-dioxane	9.320	88	116M4	8.363	ng/mL	

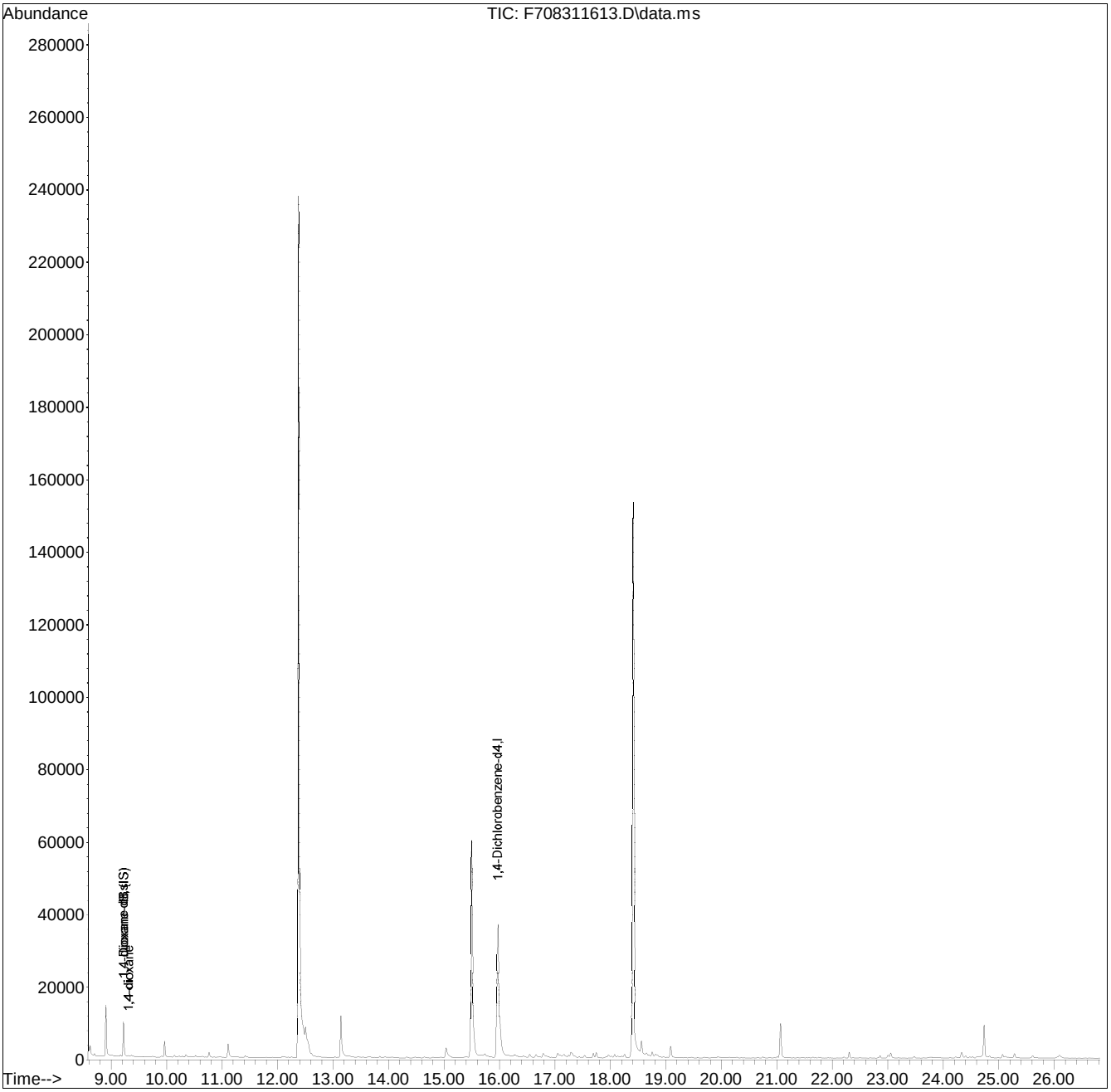
(#) = qualifier out of range (m) = manual integration (+) = signals summed

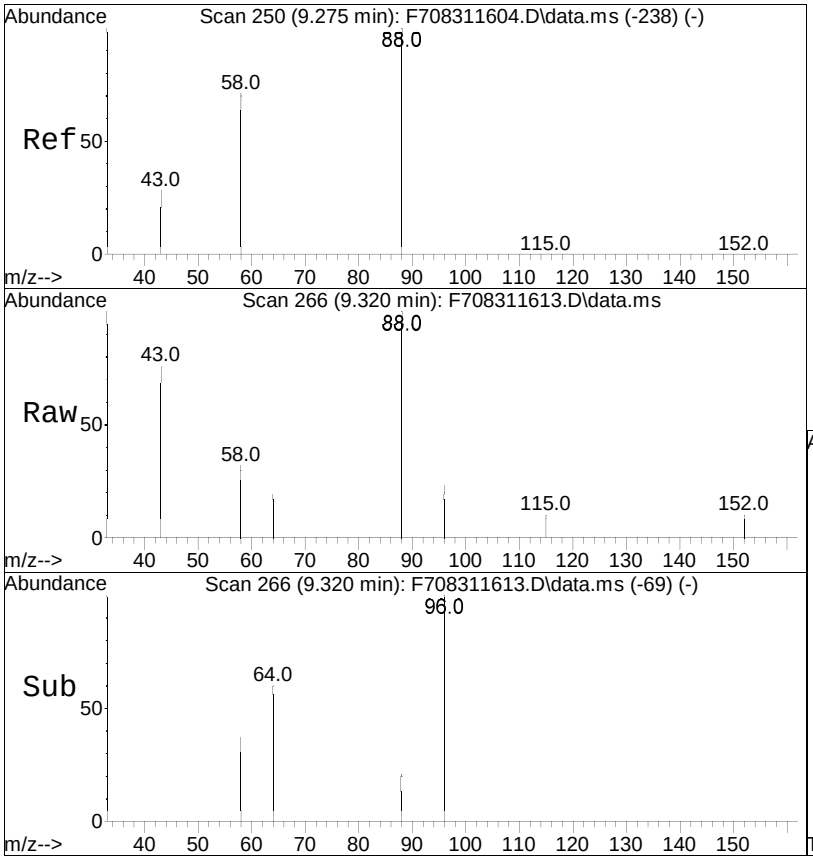
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311613.D
Acq On : 31 Aug 2016 11:33 pm
Operator : BNA7:WR
Sample : L1626902-06
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 01 09:18:34 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

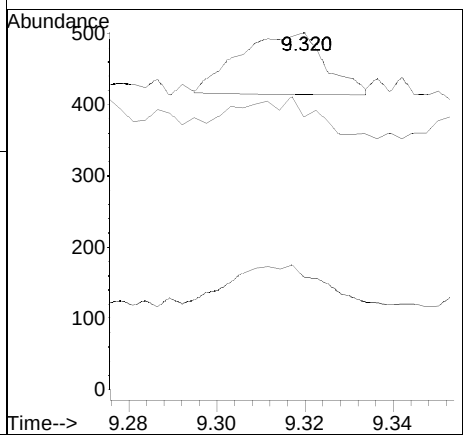




#2
1,4-dioxane
Concen: 8.36 ng/mL M4
RT: 9.320 min Scan# 266
Delta R.T. 0.044 min
Lab File: F708311613.D
Acq: 31 Aug 2016 11:33 pm

Tgt Ion: 88 Resp: 116

Ion	Ratio	Lower	Upper
88	100		
58	37.9	62.1	93.1#
43	0.0	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311614.D
Acq On : 01 Sep 2016 12:15 am
Operator : BNA7:WR
Sample : L1626902-07
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 01 09:20:15 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.226	64	4846	500.000	ng/mL	0.03
3) 1,4-Dichlorobenzene-d4	15.969	152	51109	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.226	64	4846	112.553	ng/mL	0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 22.51%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

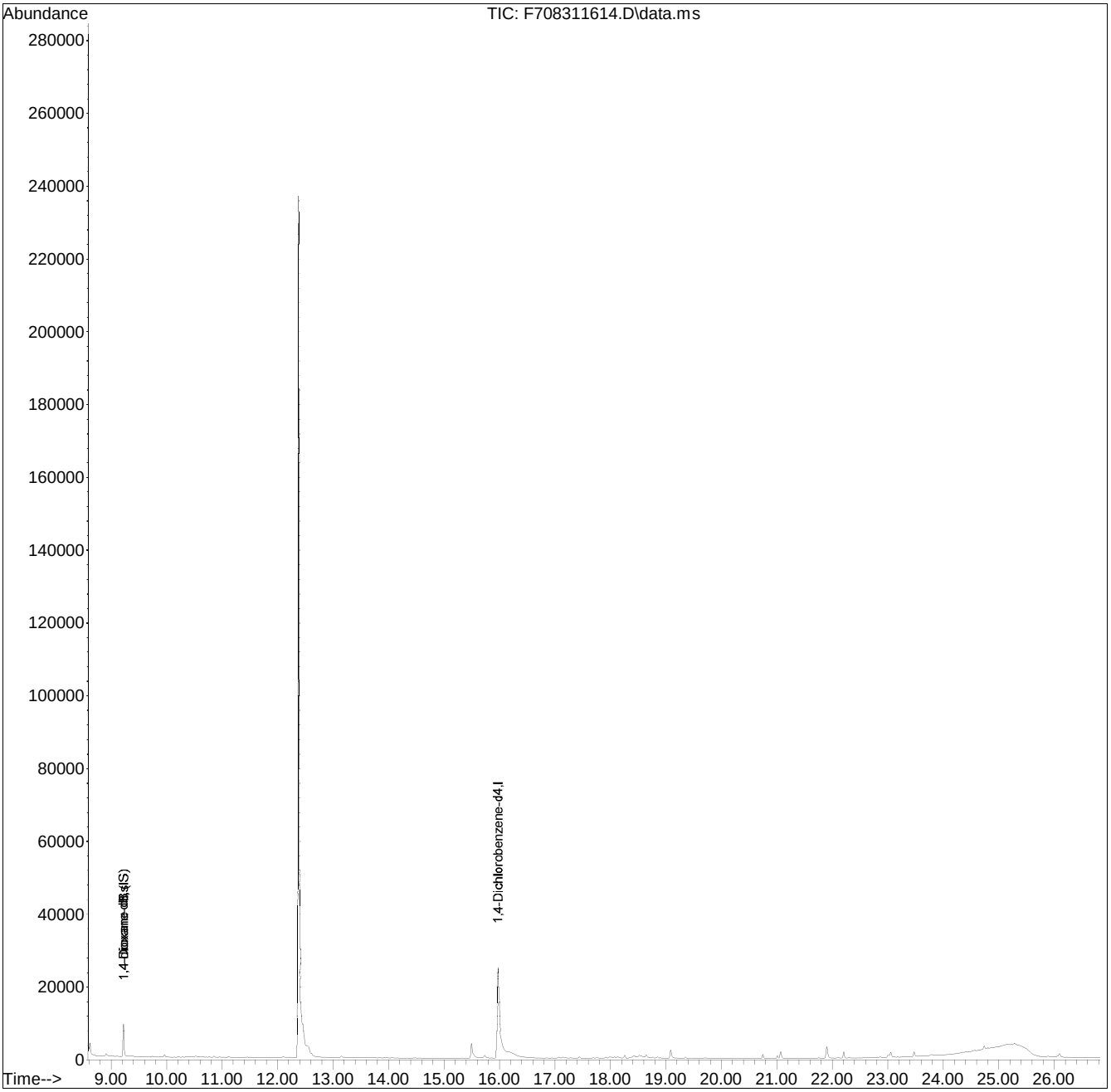
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311614.D
Acq On : 01 Sep 2016 12:15 am
Operator : BNA7:WR
Sample : L1626902-07
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 01 09:20:15 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311615.D
Acq On : 01 Sep 2016 12:57 am
Operator : BNA7:WR
Sample : L1626902-08
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 01 09:21:16 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.226	64	5575	500.000	ng/mL	0.03
3) 1,4-Dichlorobenzene-d4	15.966	152	57338	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.226	64	5575	115.418	ng/mL	0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.08%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

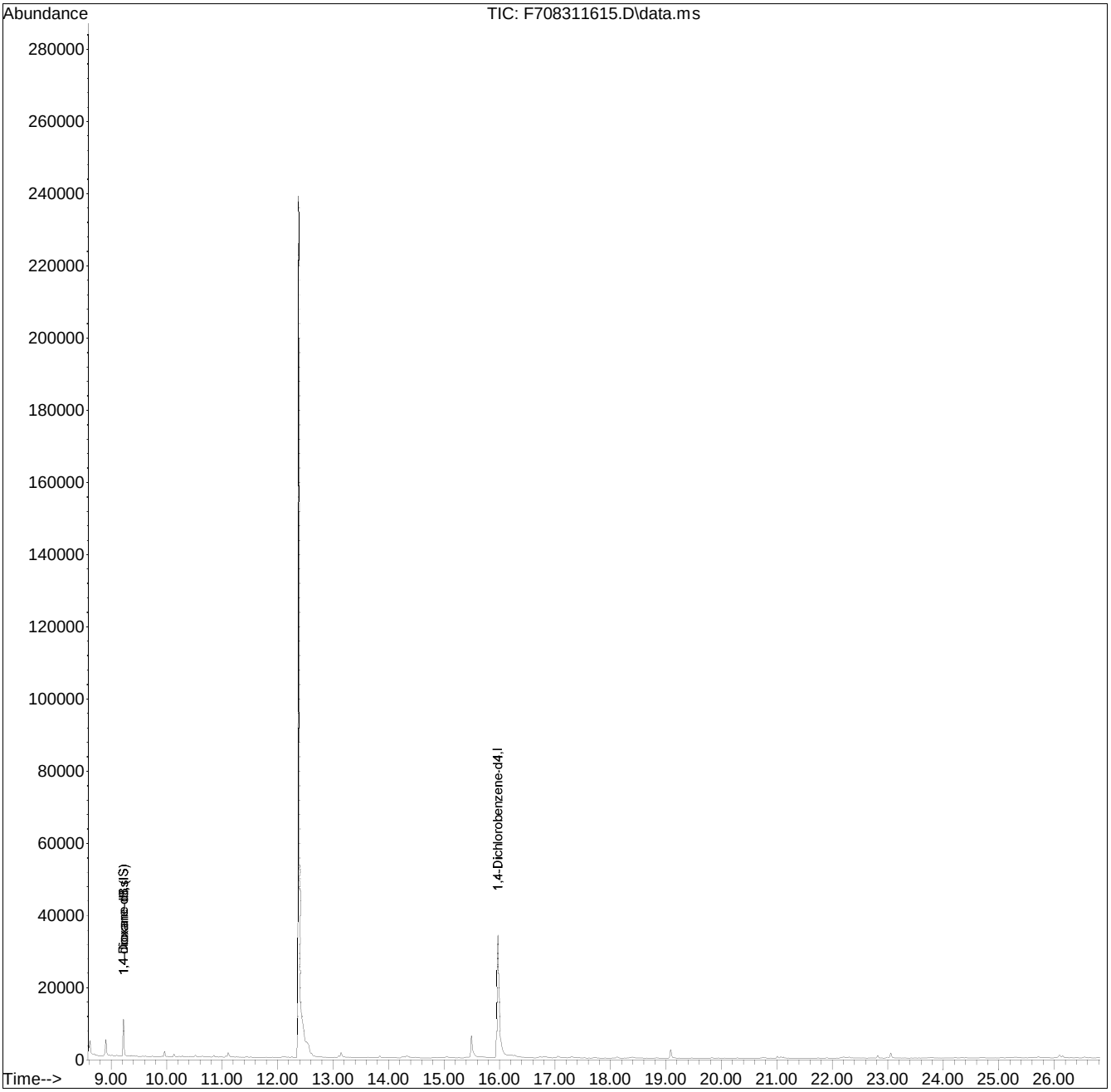
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311615.D
Acq On : 01 Sep 2016 12:57 am
Operator : BNA7:WR
Sample : L1626902-08
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 01 09:21:16 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311616.D
Acq On : 01 Sep 2016 01:39 am
Operator : BNA7:WR
Sample : L1626902-09
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 01 09:21:47 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.215	64	5210	500.000	ng/mL	0.02
3) 1,4-Dichlorobenzene-d4	15.966	152	59633	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.215	64	5210	103.710	ng/mL	0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 20.74%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

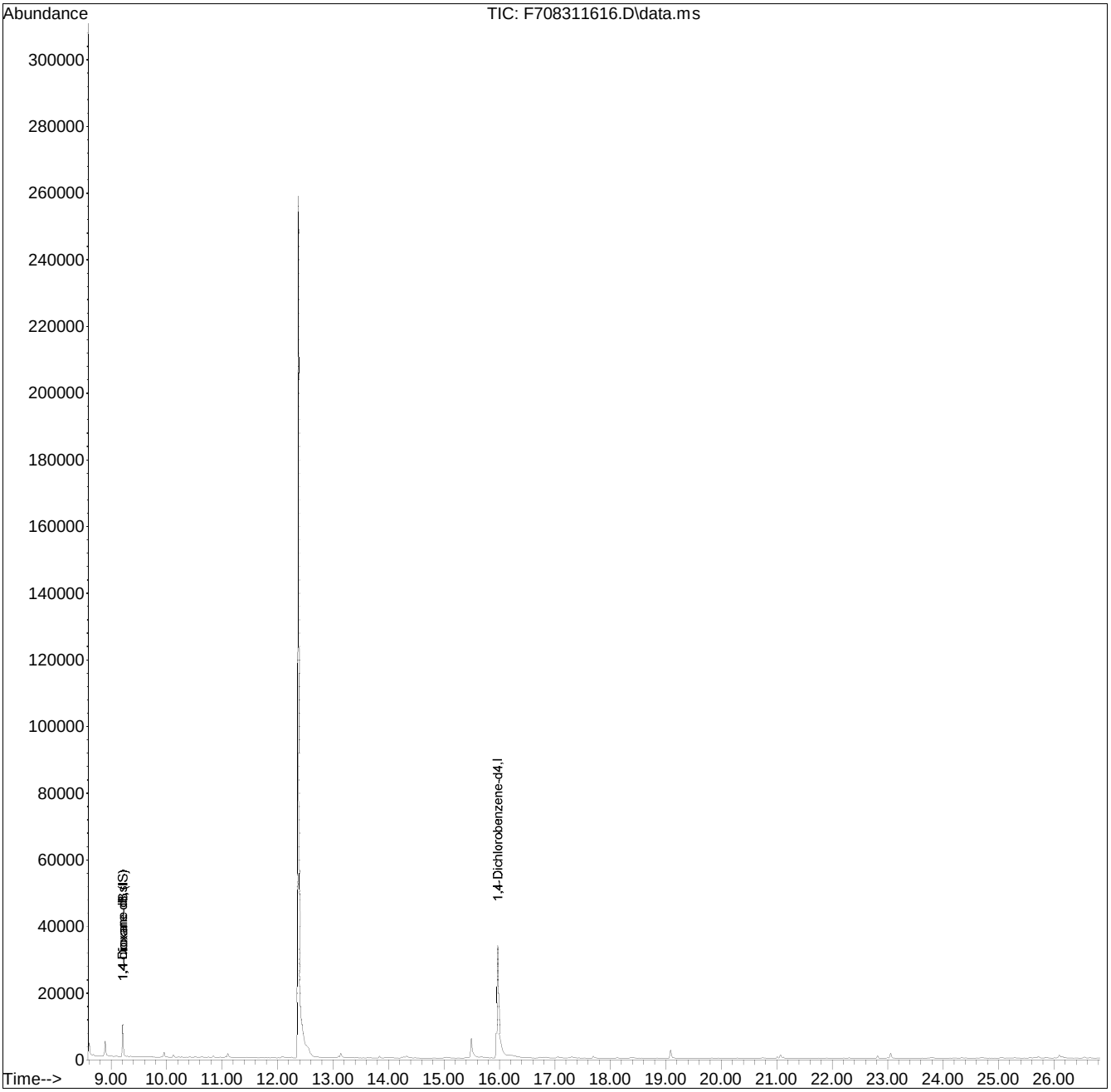
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311616.D
Acq On : 01 Sep 2016 01:39 am
Operator : BNA7:WR
Sample : L1626902-09
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 01 09:21:47 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



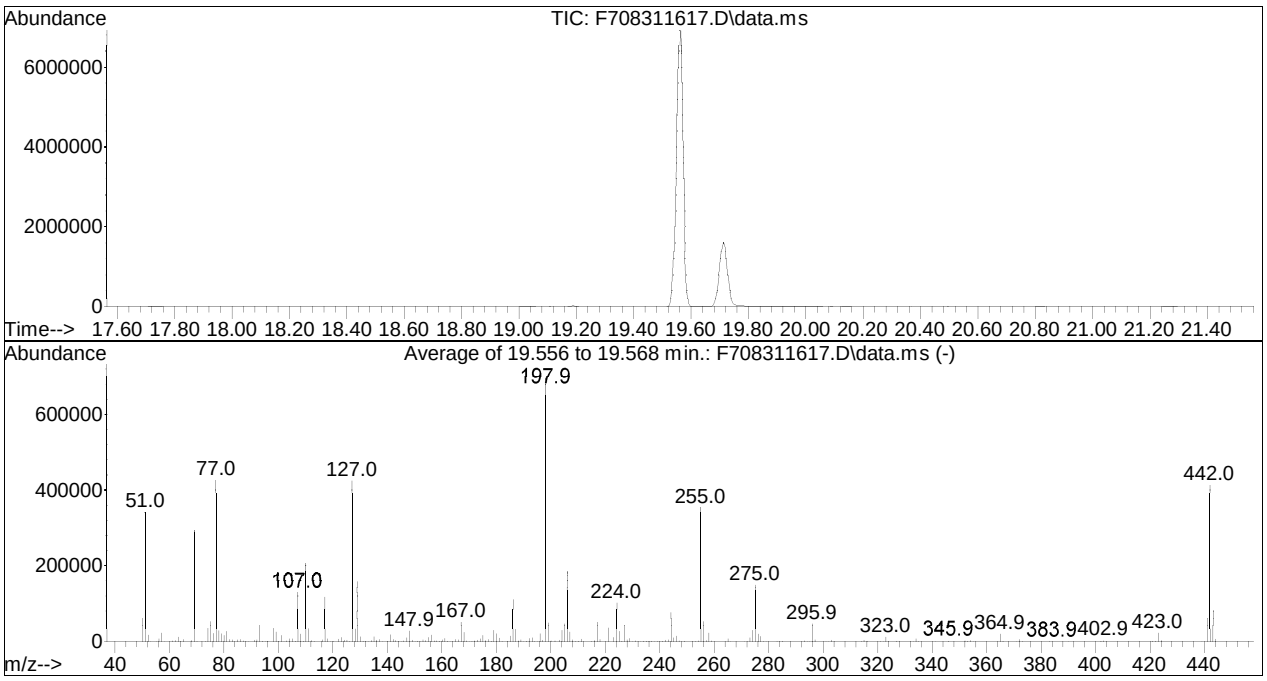
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311617.D
Acq On : 01 Sep 2016 02:19 am
Operator : BNA7:WR
Sample : WG927825-4
Misc : WG927825,MSAJ70
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Title : Semivolatiles by GC/MS
Last Update : Thu Sep 01 09:09:55 2016



AutoFind: Scans 1917, 1918, 1919; Background Corrected with Scan 1908

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	49.0	341363	PASS
68	69	0.00	2	1.5	4488	PASS
70	69	0.00	2	0.5	1608	PASS
127	198	10	80	60.9	424725	PASS
197	198	0.00	2	0.8	5450	PASS
198	198	100	100	100.0	697365	PASS
199	198	5	9	7.0	48592	PASS
275	198	10	60	21.3	148267	PASS
365	198	1	100	2.8	19221	PASS
441	442	0.01	24	14.6	60451	PASS
442	198	50	100	59.3	413291	PASS
443	442	15	24	19.3	79560	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311618.D
Acq On : 01 Sep 2016 03:12 am
Operator : BNA7:WR
Sample : WG927825-6
Misc : WG927825,FRAX49
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 01 08:44:45 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	104	0.00
2	1,4-dioxane	1.433	1.428	0.3	100	0.00
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	119	0.00
4 s	1,4-dioxane-d8	0.421	0.376	10.7	103	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311618.D
Acq On : 01 Sep 2016 03:12 am
Operator : BNA7:WR
Sample : WG927825-6
Misc : WG927825,FRAX49
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 01 08:44:45 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.190	64	21986	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.966	152	58440m	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.190	64	21986	446.588	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 89.32%			
Target Compounds						Qvalue
2) 1,4-dioxane	9.267	88	62808	996.652	ng/mL	96

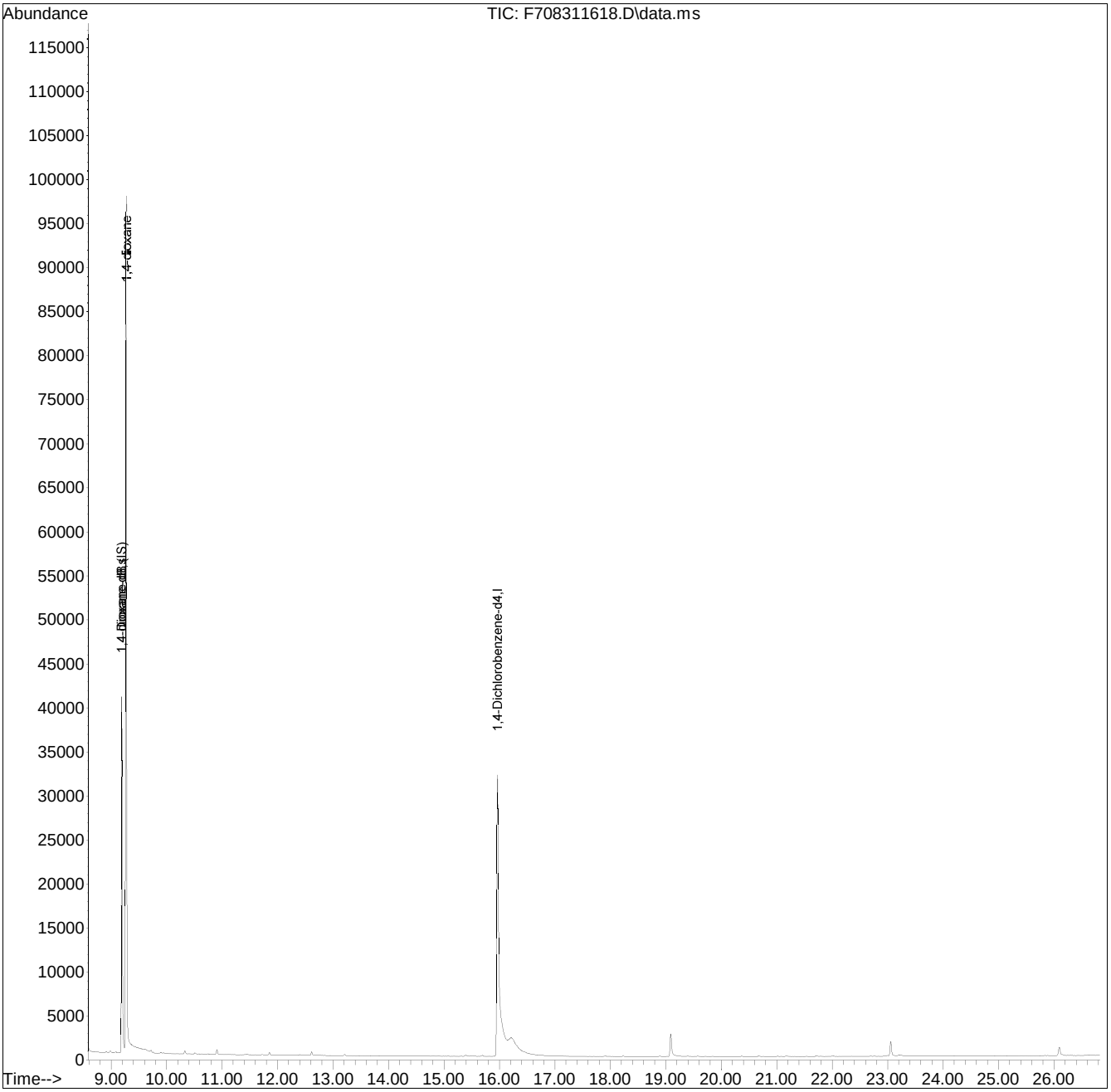
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311618.D
Acq On : 01 Sep 2016 03:12 am
Operator : BNA7:WR
Sample : WG927825-6
Misc : WG927825,FRAX49
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 01 08:44:45 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Wed Aug 31 14:53:31 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311619.D
Acq On : 01 Sep 2016 03:54 am
Operator : BNA7:WR
Sample : L1626902-10
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 01 09:38:35 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.220	64	5513	500.000	ng/mL	0.02
3) 1,4-Dichlorobenzene-d4	15.966	152	50858	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.220	64	5513	128.677	ng/mL	0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.74%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

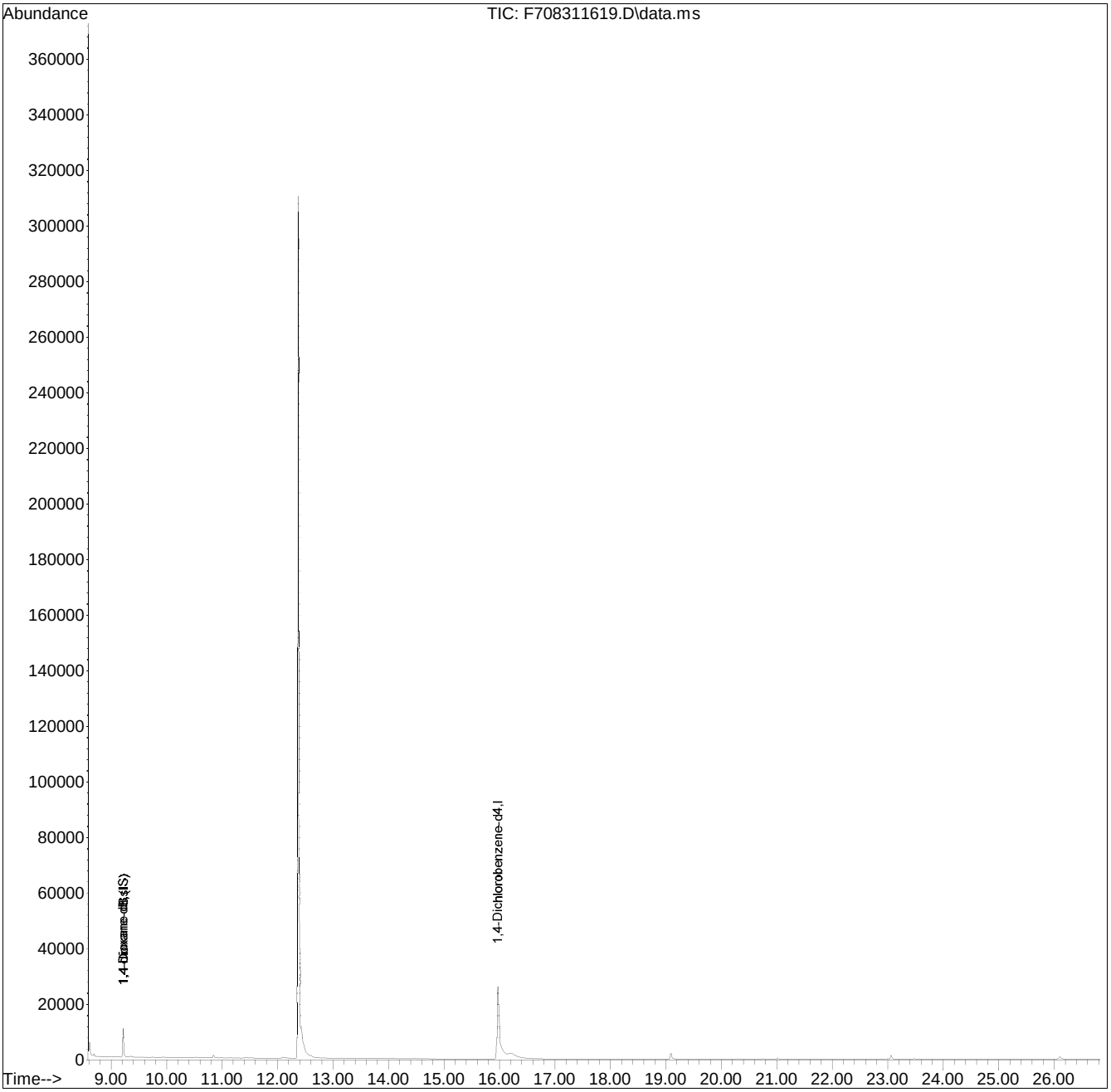
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311619.D
Acq On : 01 Sep 2016 03:54 am
Operator : BNA7:WR
Sample : L1626902-10
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 01 09:38:35 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Batch Quality Control

Method Blank
Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311605.D
Acq On : 31 Aug 2016 05:57 pm
Operator : BNA7:WR
Sample : WG926894-1
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 01 09:10:49 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

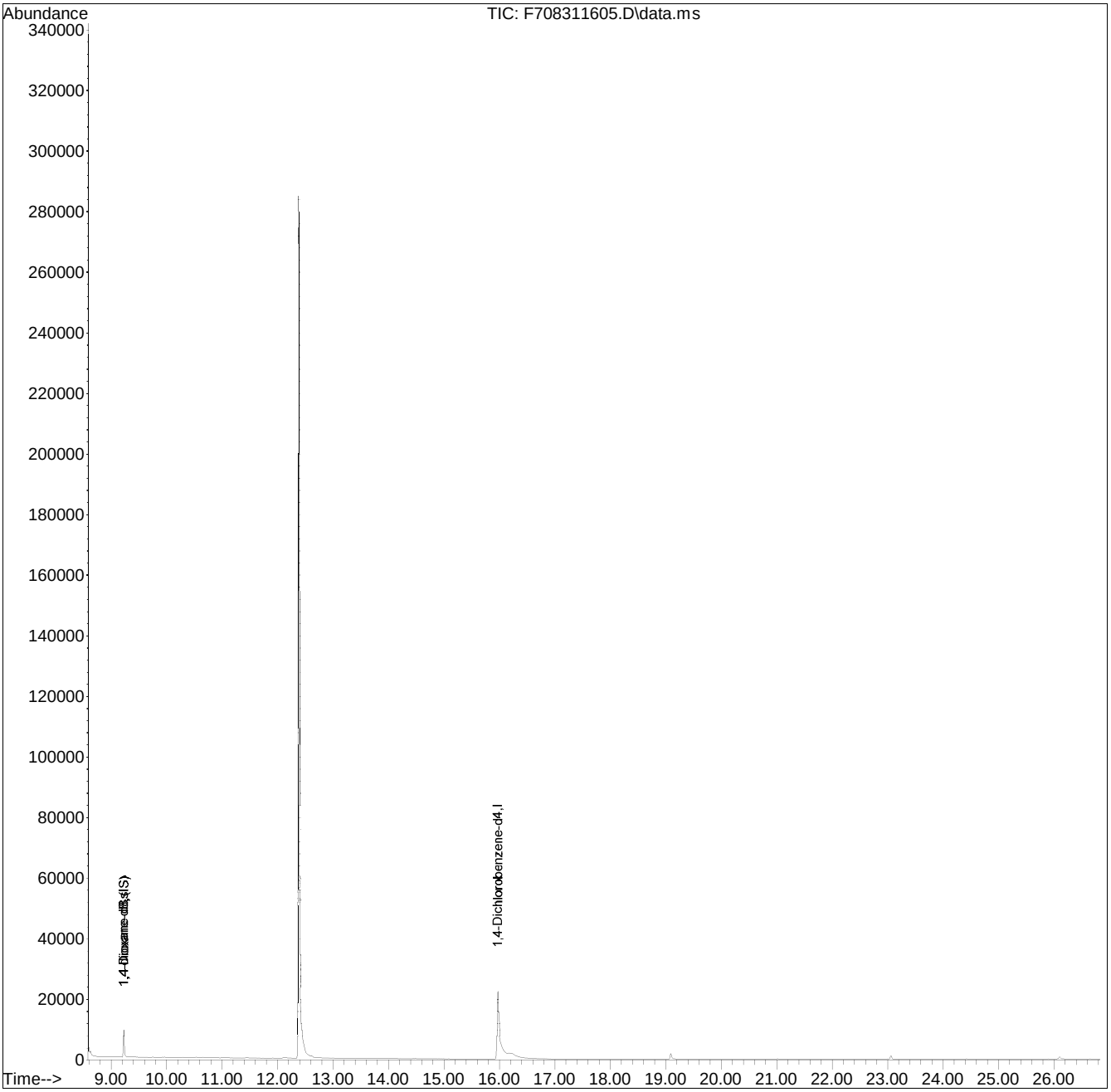
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.231	64	4842M4	500.000	ng/mL	0.03
3) 1,4-Dichlorobenzene-d4	15.969	152	45431	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.231	64	4842M4	126.516	ng/mL	0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.30%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311605.D
Acq On : 31 Aug 2016 05:57 pm
Operator : BNA7:WR
Sample : WG926894-1
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 01 09:10:49 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311606.D
Acq On : 31 Aug 2016 06:39 pm
Operator : BNA7:WR
Sample : WG926894-2
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 01 09:11:07 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.256	64	5946	500.000	ng/mL	0.06
3) 1,4-Dichlorobenzene-d4	15.969	152	48284	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.256	64	5946	146.182	ng/mL	0.06
Spiked Amount 500.000	Range 15 - 115		Recovery = 29.24%			
Target Compounds						Qvalue
2) 1,4-dioxane	9.334	88	10157	595.958	ng/mL	94

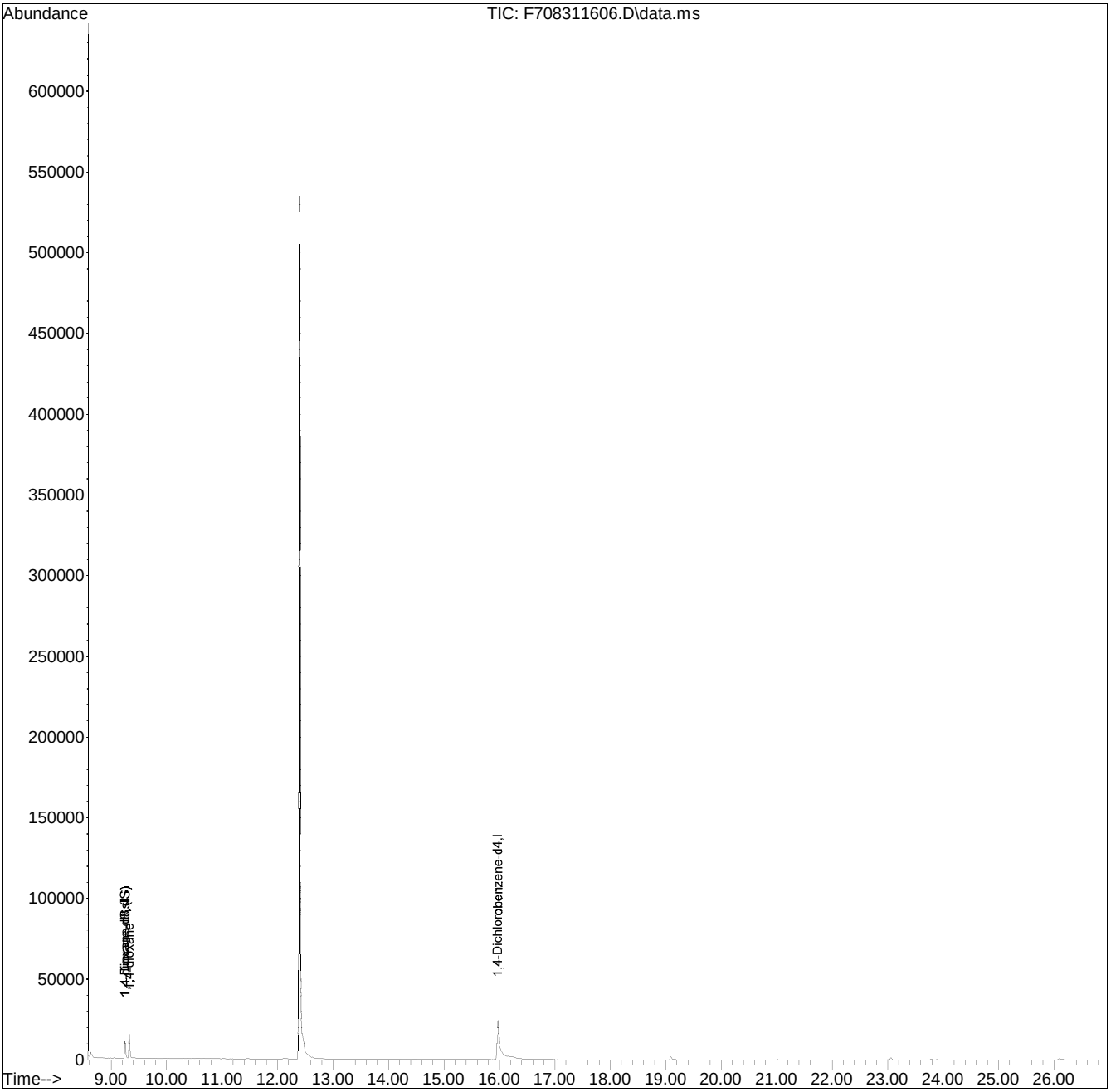
(#) = qualifier out of range (m) = manual integration (+) = signals summed

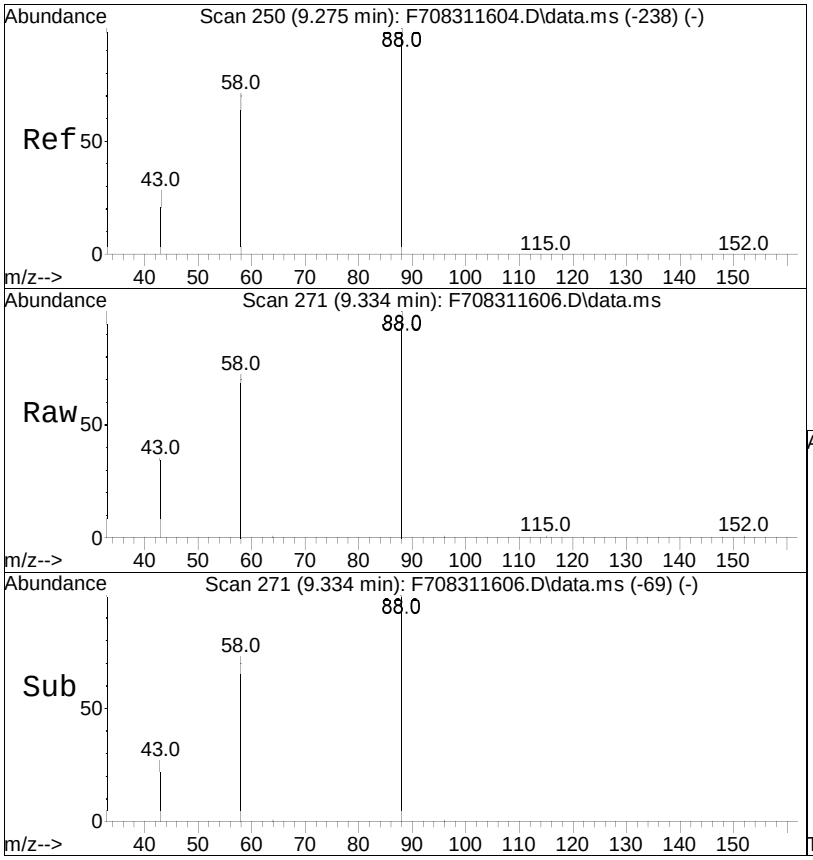
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311606.D
Acq On : 31 Aug 2016 06:39 pm
Operator : BNA7:WR
Sample : WG926894-2
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 01 09:11:07 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

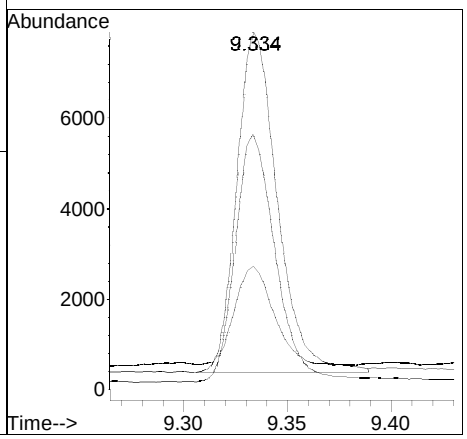




#2
1,4-dioxane
Concen: 595.96 ng/mL
RT: 9.334 min Scan# 271
Delta R.T. 0.058 min
Lab File: F708311606.D
Acq: 31 Aug 2016 06:39 pm

Tgt Ion: 88 Resp: 10157

Ion	Ratio	Lower	Upper
88	100		
58	71.9	62.1	93.1
43	27.6	24.4	36.6



LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311607.D
Acq On : 31 Aug 2016 07:21 pm
Operator : BNA7:WR
Sample : WG926894-3
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 01 09:11:37 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	9.256	64	5337	500.000	ng/mL	0.06
3) 1,4-Dichlorobenzene-d4	15.972	152	43074	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	9.256	64	5337	147.080	ng/mL	0.06
Spiked Amount 500.000	Range 15 - 115		Recovery = 29.42%			
Target Compounds						Qvalue
2) 1,4-dioxane	9.333	88	9015	589.309	ng/mL	95

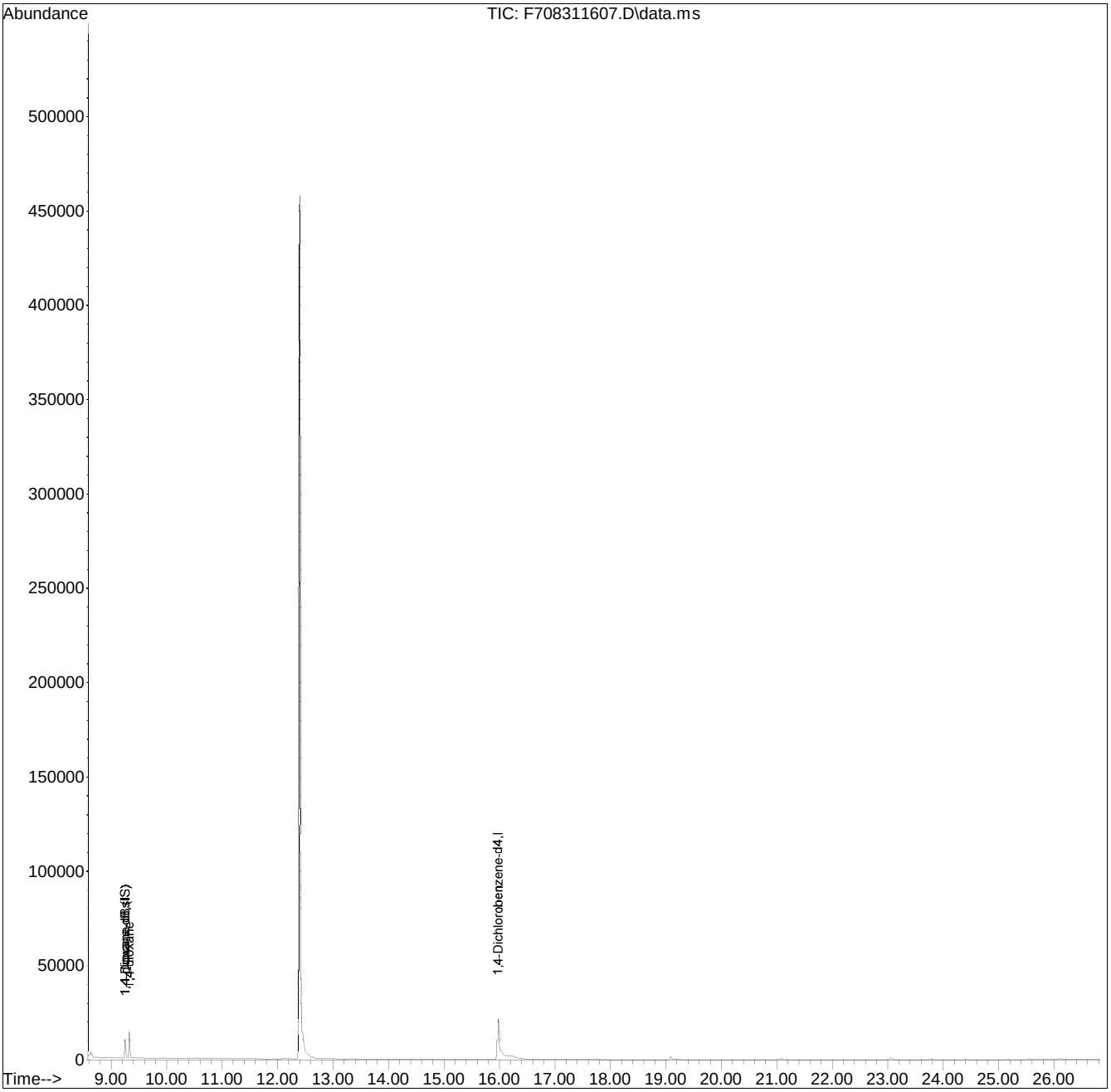
(#) = qualifier out of range (m) = manual integration (+) = signals summed

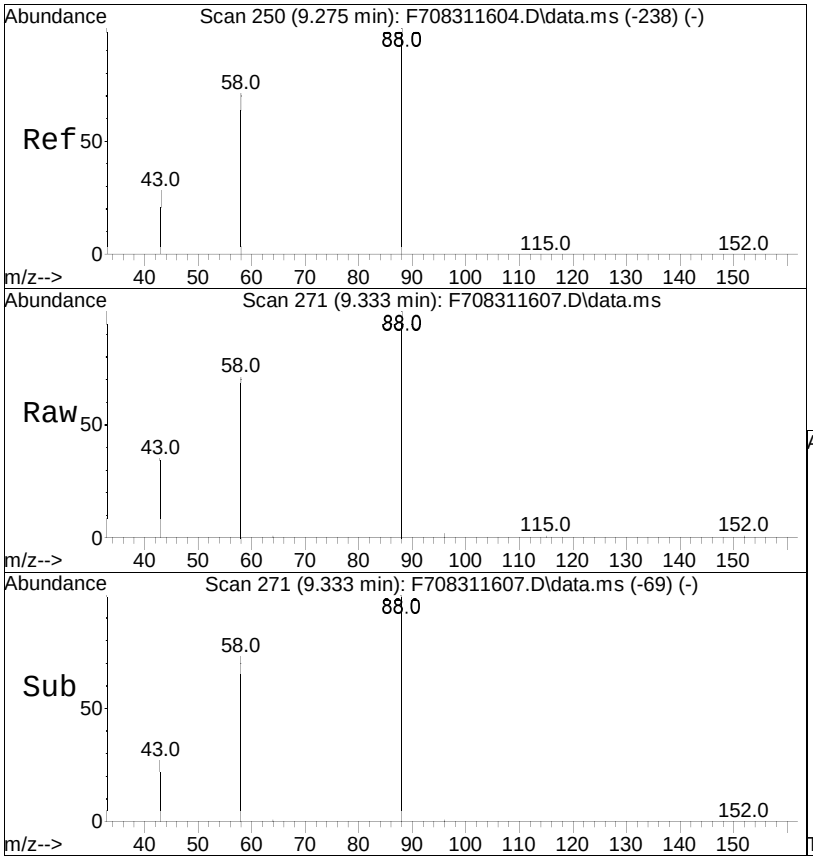
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA7\2016\Aug\Aug31\
Data File : F708311607.D
Acq On : 31 Aug 2016 07:21 pm
Operator : BNA7:WR
Sample : WG926894-3
Misc : WG927825,WG926894,ICAL12834
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 01 09:11:37 2016
Quant Method : O:\Organics\DATA\BNA7\2016\Aug\Aug31\14DIOX0830BNA7.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Sep 01 09:09:55 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

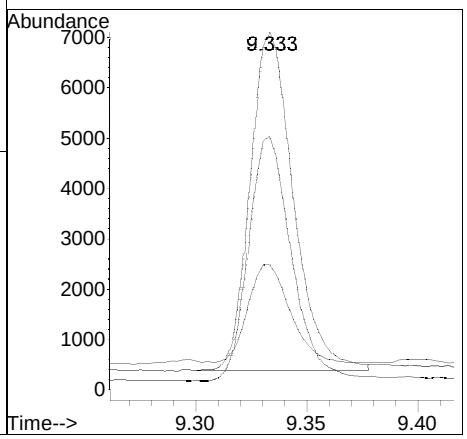




#2
1,4-dioxane
Concen: 589.31 ng/mL
RT: 9.333 min Scan# 271
Delta R.T. 0.058 min
Lab File: F708311607.D
Acq: 31 Aug 2016 07:21 pm

Tgt Ion: 88 Resp: 9015

Ion	Ratio	Lower	Upper
88	100		
58	73.1	62.1	93.1
43	28.2	24.4	36.6



Sample Preparation

ORGANIC ELN REPORT

Workgroup: WG926894

Prep Method: EPA 3510C
Solvent Type: DCM **Lot #:** 0000113719
Surrogate Type: 1,4-DIOXANE **Lot #:** MSAK13
Spike Type: 1,4-DIOXANE **Lot #:** MSAK04
Spike Verify by: TS
Lims Spikelot: 14DIOXANE

Additional Reagents/Stds

Na2SO4	0000131774
Glass Wool	11414001

Conc.Method: S-EVAP
Solvent Type: DCM
Lot #: 0000113719

Additional Reagents/Stds

Cleanup 1

Cleanup Method 1:
Cleanup Method 2:
Solvent Type: **Lot #:**

Additional Reagents/Stds

Sample/ Type	Extraction: Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Concentration: Conc Date	Analyst	Final Vol ml	Conc Unit
WG926894-1 BLANK	08/29/16 11:30	Alyssa Sass	500	7	0.5		08/29/16 14:30	Tyler Snook	5	SEVAP 5
	QC'S SHARED WITH WG926918 TS 08/29/16									
WG926894-2 LCS	08/29/16 11:30	Alyssa Sass	500	7	0.5	0.5	08/29/16 14:30	Tyler Snook	5	SEVAP 5
WG926894-3 LCSD	08/29/16 11:30	Alyssa Sass	500	7	0.5	0.5	08/29/16 14:30	Tyler Snook	5	SEVAP 5
L1626902-01 WATER	08/29/16 11:30	Alyssa Sass	480	7	0.5		08/29/16 14:30	Tyler Snook	5	SEVAP 5
L1626902-02 WATER	08/29/16 11:30	Alyssa Sass	510	7	0.5		08/29/16 14:30	Tyler Snook	5	SEVAP 5
L1626902-03 WATER	08/29/16 11:30	Alyssa Sass	480	11 --> 7	0.5		08/29/16 14:30	Tyler Snook	5	SEVAP 5
L1626902-04 WATER	08/29/16 11:30	Alyssa Sass	450	9	0.5		08/29/16 14:30	Tyler Snook	5	SEVAP 5

Reported: 20-SEP-16 04:03 PM

ORGANIC ELN REPORT

Workgroup: WG926894

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol **ml**	Ph	Surr Amt **ml**	Spike Amt **ml**	Conc Date	Analyst	Final Vol **ml**	Conc Unit
L1626902-05 WATER	08/29/16 11:30	Alyssa Sass	480	8	0.5		08/29/16 14:30	Tyler Snook	5	SEVAP 5
L1626902-06 WATER	08/29/16 11:30	Alyssa Sass	430	12 --> 9	0.5		08/29/16 14:30	Tyler Snook	5	SEVAP 5
L1626902-07 WATER	08/29/16 11:30	Alyssa Sass	490	8	0.5		08/29/16 14:30	Tyler Snook	5	SEVAP 5
L1626902-08 WATER	08/29/16 11:30	Alyssa Sass	460	10 --> 7	0.5		08/29/16 14:30	Tyler Snook	5	SEVAP 5
L1626902-09 WATER	08/29/16 11:30	Alyssa Sass	470	10 --> 9	0.5		08/29/16 14:30	Tyler Snook	5	SEVAP 5
L1626902-10 WATER	08/29/16 11:30	Alyssa Sass	500	7	0.5		08/29/16 14:30	Tyler Snook	5	SEVAP 5

Reported: 20-SEP-16 04:03 PM

Alpha Report

ANALYTICAL REPORT

Lab Number:	L1626902
Client:	Cornerstone Environmental Group, LLC 100 Crystal Run Road Suite 101 Middletown, NY 10941
ATTN:	Tim Roeper
Phone:	(845) 695-0200
Project Name:	FORD-RINGWOOD
Project Number:	140802-015
Report Date:	09/02/16

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626902
Report Date: 09/02/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1626902-01	RW-4A(62-72)-082516	WATER	RINGWOOD NJ	08/25/16 08:10	08/26/16
L1626902-02	RW-13(71-91)-082516	WATER	RINGWOOD NJ	08/25/16 09:45	08/26/16
L1626902-03	RW-12(130-140)-082516	WATER	RINGWOOD NJ	08/25/16 12:25	08/26/16
L1626902-04	RW-8(204-214)-082516	WATER	RINGWOOD NJ	08/25/16 13:45	08/26/16
L1626902-05	RW-8(163-173)-082516	WATER	RINGWOOD NJ	08/25/16 16:05	08/26/16
L1626902-06	RW-13(100-120)-082516	WATER	RINGWOOD NJ	08/25/16 07:45	08/26/16
L1626902-07	RW-13(150-170)-082616	WATER	RINGWOOD NJ	08/26/16 08:25	08/26/16
L1626902-08	DUP-05-082616	WATER	RINGWOOD NJ	08/26/16 12:00	08/26/16
L1626902-09	RW-10(185-195)-082616	WATER	RINGWOOD NJ	08/26/16 13:05	08/26/16
L1626902-10	RW-10A(75-85)-082616	WATER	RINGWOOD NJ	08/26/16 14:15	08/26/16

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626902
Report Date: 09/02/16

NJ DEP Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	YES
1a	Were the method specified handling, preservation, and holding time requirements met?	YES
1b	EPH Method: Was the EPH Method conducted without significant modifications (see Section 11.3 of respective DKQ methods)?	N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	YES
3	Were all samples received at an appropriate temperature (4 ± 2° C)?	YES
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	YES
5a	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	NO
5b	Were these reporting limits met?	N/A
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	NO
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	NO

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1a or #1b is "No", the data package does not meet the requirements for "Data of Known Quality".

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626902
Report Date: 09/02/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORD-RINGWOOD **Lab Number:** L1626902
Project Number: 140802-015 **Report Date:** 09/02/16

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

DKQP Related Narratives

Semi-Volatile Organics

In reference to question 5a:

Reporting limits were not specified.

In reference to question 6:

At the client's request, all submitted samples were not analyzed for the full DKQP list of constituents identified in the method specific analyte list presented in the DKQP documents.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Susan E O'Neil Susan O' Neil

Title: Technical Director/Representative Date: 09/02/16

ORGANICS

SEMIVOLATILES

Project Name: FORD-RINGWOOD
Lab Number: L1626902
Project Number: 140802-015
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID: L1626902-01
Client ID: RW-4A(62-72)-082516
Sample Location: RINGWOOD NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/31/16 20:03
Analyst: WR

Date Collected: 08/25/16 08:10
Date Received: 08/26/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/29/16 11:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	156	78.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	24		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626902
Project Number: 140802-015
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID: L1626902-02
Client ID: RW-13(71-91)-082516
Sample Location: RINGWOOD NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/31/16 20:45
Analyst: WR

Date Collected: 08/25/16 09:45
Date Received: 08/26/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/29/16 11:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	201.		ng/l	147	73.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	21		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626902
Project Number: 140802-015
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID: L1626902-03
Client ID: RW-12(130-140)-082516
Sample Location: RINGWOOD NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/31/16 21:27
Analyst: WR

Date Collected: 08/25/16 12:25
Date Received: 08/26/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/29/16 11:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	156	78.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	20		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1626902
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID: L1626902-04
Client ID: RW-8(204-214)-082516
Sample Location: RINGWOOD NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/31/16 22:09
Analyst: WR

Date Collected: 08/25/16 13:45
Date Received: 08/26/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/29/16 11:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	121.	J	ng/l	167	83.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	19		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626902
Project Number: 140802-015
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID:	L1626902-05	Date Collected:	08/25/16 16:05
Client ID:	RW-8(163-173)-082516	Date Received:	08/26/16
Sample Location:	RINGWOOD NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/29/16 11:30
Analytical Date:	08/31/16 22:51		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	156	78.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	18		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626902
Project Number: 140802-015
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID: L1626902-06
Client ID: RW-13(100-120)-082516
Sample Location: RINGWOOD NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 08/31/16 23:33
Analyst: WR

Date Collected: 08/25/16 07:45
Date Received: 08/26/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/29/16 11:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	97.2	J	ng/l	174	87.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	19		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626902
Project Number: 140802-015
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID:	L1626902-07	Date Collected:	08/26/16 08:25
Client ID:	RW-13(150-170)-082616	Date Received:	08/26/16
Sample Location:	RINGWOOD NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/29/16 11:30
Analytical Date:	09/01/16 00:15		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	153	76.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	23		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1626902
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID: L1626902-08
Client ID: DUP-05-082616
Sample Location: RINGWOOD NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 09/01/16 00:57
Analyst: WR

Date Collected: 08/26/16 12:00
Date Received: 08/26/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/29/16 11:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	163	81.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	23		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626902
Project Number: 140802-015
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID:	L1626902-09	Date Collected:	08/26/16 13:05
Client ID:	RW-10(185-195)-082616	Date Received:	08/26/16
Sample Location:	RINGWOOD NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	08/29/16 11:30
Analytical Date:	09/01/16 01:39		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	160	79.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	21		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1626902
Project Number: 140802-015
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID: L1626902-10
Client ID: RW-10A(75-85)-082616
Sample Location: RINGWOOD NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 09/01/16 03:54
Analyst: WR

Date Collected: 08/26/16 14:15
Date Received: 08/26/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 08/29/16 11:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	150	75.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	26		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626902
Report Date: 09/02/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 08/31/16 17:57
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 08/29/16 11:30

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01-10 Batch: WG926894-1					
1,4-Dioxane	ND		ng/l	150	75.0

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	25		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORD-RINGWOOD

Project Number: 140802-015

Lab Number: L1626902

Report Date: 09/02/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab	Associated sample(s): 01-10		Batch: WG926894-2		WG926894-3			
1,4-Dioxane	119		118		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	29		29		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1626902
Report Date: 09/02/16

Sample Receipt and Container Information

Were project specific reporting limits specified? NO

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1626902-01A	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-01B	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-02A	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-02B	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-03A	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-03B	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-04A	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-04B	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-05A	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-05B	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-06A	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-06B	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-07A	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-07B	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-08A	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-08B	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-09A	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-09B	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-10A	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)
L1626902-10B	Amber 500ml unpreserved	A	7	2.0	Y	Absent	A2-1,4-DIOXANE-SIM(7)

*Values in parentheses indicate holding time in days

Project Name:	FORD-RINGWOOD	**Lab Number:**	L1626902
Project Number:	140802-015	**Report Date:**	09/02/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORD-RINGWOOD	**Lab Number:**	L1626902
Project Number:	140802-015	**Report Date:**	09/02/16

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name: FORD-RINGWOOD
Project Number: 140802-015
Lab Number: L1626902
Report Date: 09/02/16

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: ***EPA 3050B***

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193

Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 8/27/16

ALPHA Job #: L1626902

Client Information
Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd Middletown NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information
Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #: 140802-015
(Use Project name as Project #) ☐
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☐ Same as Client Info
PO #

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Please specify Metals or TAL.

ANALYSIS
A2 1,4 Dioxane SIM - PAS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Sample Specific Comments

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2
26902-01	RW-4A(62-72)-082516	8/25/16	08:10	GW		✓
-02	RW-13(71-91)-082516	8/25/16	09:45	GW		✓
-03	RW-12(130-140)-082516	8/25/16	12:25	GW		✓
-04	RW-8(204-214)-082516	8/25/16	13:45	GW		✓
-05	RW-8(163-173)-082516	8/25/16	16:05	GW		✓
-06	RW-13(100-120)-082616	8/26/16	07:45	GW		✓
-07	RW-13(150-170)-082616	8/26/16	08:25	GW		✓
-08	Dup-05-082616	8/26/16	12:00	GW		✓
-09	RW-10(185-195)-082616	8/26/16	13:05	GW		✓
-10	RW-10A(75-85)-082616	8/26/16	14:15	GW		✓

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/26/16 14:45		8/26/16 14:45
	8/26/16 18:00		8-26-16 1800
	8-27-16 0200		8/27/16 0200

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Alpha
Summary Forms

Organic Summary Forms

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626902-01	**Date Collected**	: 08/25/16 08:10
Client ID	: RW-4A(62-72)-082516	**Date Received**	: 08/26/16
Sample Location	: RINGWOOD NJ	**Date Analyzed**	: 08/31/16 20:03
Sample Matrix	: WATER	**Date Extracted**	: 08/29/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F708311608	**Analyst**	: WR
Sample Amount	: 480 ml	**Instrument ID**	: BNA7
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ng/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	156	78.1	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626902-02	**Date Collected**	: 08/25/16 09:45
Client ID	: RW-13(71-91)-082516	**Date Received**	: 08/26/16
Sample Location	: RINGWOOD NJ	**Date Analyzed**	: 08/31/16 20:45
Sample Matrix	: WATER	**Date Extracted**	: 08/29/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F708311609	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA7
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ng/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	201.	147	73.5	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626902-03	**Date Collected**	: 08/25/16 12:25
Client ID	: RW-12(130-140)-082516	**Date Received**	: 08/26/16
Sample Location	: RINGWOOD NJ	**Date Analyzed**	: 08/31/16 21:27
Sample Matrix	: WATER	**Date Extracted**	: 08/29/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F708311610	**Analyst**	: WR
Sample Amount	: 480 ml	**Instrument ID**	: BNA7
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ng/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	156	78.1	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626902-04	**Date Collected**	: 08/25/16 13:45
Client ID	: RW-8(204-214)-082516	**Date Received**	: 08/26/16
Sample Location	: RINGWOOD NJ	**Date Analyzed**	: 08/31/16 22:09
Sample Matrix	: WATER	**Date Extracted**	: 08/29/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F708311611	**Analyst**	: WR
Sample Amount	: 450 ml	**Instrument ID**	: BNA7
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ng/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	121.	167	83.3	J

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626902-05	**Date Collected**	: 08/25/16 16:05
Client ID	: RW-8(163-173)-082516	**Date Received**	: 08/26/16
Sample Location	: RINGWOOD NJ	**Date Analyzed**	: 08/31/16 22:51
Sample Matrix	: WATER	**Date Extracted**	: 08/29/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F708311612	**Analyst**	: WR
Sample Amount	: 480 ml	**Instrument ID**	: BNA7
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ng/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	156	78.1	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626902-06	**Date Collected**	: 08/25/16 07:45
Client ID	: RW-13(100-120)-082516	**Date Received**	: 08/26/16
Sample Location	: RINGWOOD NJ	**Date Analyzed**	: 08/31/16 23:33
Sample Matrix	: WATER	**Date Extracted**	: 08/29/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F708311613	**Analyst**	: WR
Sample Amount	: 430 ml	**Instrument ID**	: BNA7
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ng/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	97.2	174	87.2	J

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626902-07	**Date Collected**	: 08/26/16 08:25
Client ID	: RW-13(150-170)-082616	**Date Received**	: 08/26/16
Sample Location	: RINGWOOD NJ	**Date Analyzed**	: 09/01/16 00:15
Sample Matrix	: WATER	**Date Extracted**	: 08/29/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F708311614	**Analyst**	: WR
Sample Amount	: 490 ml	**Instrument ID**	: BNA7
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ng/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	153	76.5	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626902-08	**Date Collected**	: 08/26/16 12:00
Client ID	: DUP-05-082616	**Date Received**	: 08/26/16
Sample Location	: RINGWOOD NJ	**Date Analyzed**	: 09/01/16 00:57
Sample Matrix	: WATER	**Date Extracted**	: 08/29/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F708311615	**Analyst**	: WR
Sample Amount	: 460 ml	**Instrument ID**	: BNA7
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ng/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	163	81.5	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626902-09	**Date Collected**	: 08/26/16 13:05
Client ID	: RW-10(185-195)-082616	**Date Received**	: 08/26/16
Sample Location	: RINGWOOD NJ	**Date Analyzed**	: 09/01/16 01:39
Sample Matrix	: WATER	**Date Extracted**	: 08/29/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F708311616	**Analyst**	: WR
Sample Amount	: 470 ml	**Instrument ID**	: BNA7
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ng/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	160	79.8	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1626902-10	**Date Collected**	: 08/26/16 14:15
Client ID	: RW-10A(75-85)-082616	**Date Received**	: 08/26/16
Sample Location	: RINGWOOD NJ	**Date Analyzed**	: 09/01/16 03:54
Sample Matrix	: WATER	**Date Extracted**	: 08/29/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F708311619	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA7
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ng/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	150	75.0	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: WG926894-1	**Date Collected**	: NA
Client ID	: WG926894-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 08/31/16 17:57
Sample Matrix	: WATER	**Date Extracted**	: 08/29/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F708311605	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA7
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ng/l			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	150	75.0	U

Form 2
Surrogate Recovery
SEMIVOLATILES

Client: Cornerstone Environmental Group, LLC
Project Name: FORD-RINGWOOD

Lab Number: L1626902
Project Number: 140802-015
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 ()	S2 ()	S3 ()	S4 ()	S5 ()	S6 ()	TOT OUT
DUP-05-082616 (L1626902-08)	23	--	--	--	--	--	0
WG926894-3LCSD	29	--	--	--	--	--	0
WG926894-2LCS	29	--	--	--	--	--	0
WG926894-1BLANK	25	--	--	--	--	--	0
RW-10(185-195)-082616 (L1626902-09)	21	--	--	--	--	--	0
RW-10A(75-85)-082616 (L1626902-10)	26	--	--	--	--	--	0
RW-12(130-140)-082516 (L1626902-03)	20	--	--	--	--	--	0
RW-13(100-120)-082516 (L1626902-06)	19	--	--	--	--	--	0
RW-13(150-170)-082616 (L1626902-07)	23	--	--	--	--	--	0
RW-13(71-91)-082516 (L1626902-02)	21	--	--	--	--	--	0
RW-4A(62-72)-082516 (L1626902-01)	24	--	--	--	--	--	0
RW-8(163-173)-082516 (L1626902-05)	18	--	--	--	--	--	0
RW-8(204-214)-082516 (L1626902-04)	19	--	--	--	--	--	0

	QC LIMITS
S1 = 1,4-DIOXANE-D8	(15-110)

* Values outside of QC limits

FORM II A2-1,4-DIOXANE-SIM

Laboratory Control Sample
Form 3

Client	: Cornerstone Environmental Group, LL			**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD			**Project Number**	: 140802-015
Matrix	: WATER				
LCS Sample ID	: WG926894-2	**Analysis Date :**	08/31/16 18:39	**File ID**	: F708311606
LCSD Sample ID	: WG926894-3	**Analysis Date :**	08/31/16 19:21	**File ID**	: F708311607

	Laboratory Control Sample			Laboratory Control Duplicate					
	True	Found	%R	True	Found	%R	RPD	Recovery	RPD
Parameter	(ng/l)	(ng/l)		(ng/l)	(ng/l)			Limits	Limit
1,4-Dioxane	5000	5960	119	5000	5890	118	1	40-140	30

Method Blank Summary
Form 4

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab Sample ID	: WG926894-1	**Lab File ID**	: F708311605
Instrument ID	: BNA7	**Extraction Date**	: 08/29/16
Matrix	: WATER	**Analysis Date**	: 08/31/16 17:57
Level	: LOW		

Client Sample No.	Lab Sample ID	Analysis Date
WG926894-2LCS	WG926894-2	08/31/16 18:39
WG926894-3LCSD	WG926894-3	08/31/16 19:21
RW-4A(62-72)-082516	L1626902-01	08/31/16 20:03
RW-13(71-91)-082516	L1626902-02	08/31/16 20:45
RW-12(130-140)-082516	L1626902-03	08/31/16 21:27
RW-8(204-214)-082516	L1626902-04	08/31/16 22:09
RW-8(163-173)-082516	L1626902-05	08/31/16 22:51
RW-13(100-120)-082516	L1626902-06	08/31/16 23:33
RW-13(150-170)-082616	L1626902-07	09/01/16 00:15
DUP-05-082616	L1626902-08	09/01/16 00:57
RW-10(185-195)-082616	L1626902-09	09/01/16 01:39
RW-10A(75-85)-082616	L1626902-10	09/01/16 03:54

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA7	**Analysis Date**	: 08/30/16 13:22
Tune Standard	: R896499-9	**Tune File ID**	: F708301601_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	48.6
68	Less than 2.0% of mass 69	0.7 (1.5)1
70	Less than 2.0% of mass 69	0.2 (.5)1
127	10.0 - 80.0% of Base Peak	60.8
197	Less than 2.0% of mass 198	0.7
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.9
275	10.0 - 60.0% of Base Peak	20.8
365	Greater than 1.0% of mass 198	2.7
441	Present, but less than 24% of mass 442	14.6
442	Base Peak, or >50% of mass 198	56.1
443	15.0 - 24.0% of mass 442	11.1 (19.8)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD10	R896499-8	F708301602	08/30/16 14:14
STD50	R896499-2	F708301603	08/30/16 14:56
STD100	R896499-3	F708301604	08/30/16 15:38
STD500	R896499-4	F708301605	08/30/16 16:20
STD1000	R896499-1	F708301606	08/30/16 17:02
STD5000	R896499-5	F708301607	08/30/16 17:43
STD10000	R896499-6	F708301608	08/30/16 18:25
ICV QUANT REPORT STD 1000	R896499-7	F708301609	08/30/16 19:07

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA7	**Analysis Date**	: 08/31/16 16:22
Tune Standard	: WG927825-1	**Tune File ID**	: F708311603_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	47.4
68	Less than 2.0% of mass 69	0.6 (1.5)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	60.1
197	Less than 2.0% of mass 198	0.7
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.7
275	10.0 - 60.0% of Base Peak	21
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	14.6
442	Base Peak, or >50% of mass 198	59.3
443	15.0 - 24.0% of mass 442	11.6 (19.5)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG927825-3CCAL	WG927825-3	F708311604	08/31/16 17:15
WG926894-1BLANK	WG926894-1	F708311605	08/31/16 17:57
WG926894-2LCS	WG926894-2	F708311606	08/31/16 18:39
WG926894-3LCSD	WG926894-3	F708311607	08/31/16 19:21
RW-4A(62-72)-082516	L1626902-01	F708311608	08/31/16 20:03
RW-13(71-91)-082516	L1626902-02	F708311609	08/31/16 20:45
RW-12(130-140)-082516	L1626902-03	F708311610	08/31/16 21:27
RW-8(204-214)-082516	L1626902-04	F708311611	08/31/16 22:09
RW-8(163-173)-082516	L1626902-05	F708311612	08/31/16 22:51
RW-13(100-120)-082516	L1626902-06	F708311613	08/31/16 23:33
RW-13(150-170)-082616	L1626902-07	F708311614	09/01/16 00:15
DUP-05-082616	L1626902-08	F708311615	09/01/16 00:57
RW-10(185-195)-082616	L1626902-09	F708311616	09/01/16 01:39

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA7	**Analysis Date**	: 09/01/16 02:19
Tune Standard	: WG927825-4	**Tune File ID**	: F708311617_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	49
68	Less than 2.0% of mass 69	0.6 (1.5)1
70	Less than 2.0% of mass 69	0.2 (.5)1
127	10.0 - 80.0% of Base Peak	60.9
197	Less than 2.0% of mass 198	0.8
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	7
275	10.0 - 60.0% of Base Peak	21.3
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	14.6
442	Base Peak, or >50% of mass 198	59.3
443	15.0 - 24.0% of mass 442	11.4 (19.3)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG927825-6CCAL	WG927825-6	F708311618	09/01/16 03:12
RW-10A(75-85)-082616	L1626902-10	F708311619	09/01/16 03:54

Initial Calibration Summary
Form 6

Client	**: Cornerstone Environmental Group, LL**	**Lab Number**	**: L1626902**
Project Name	**: FORD-RINGWOOD**	**Project Number**	**: 140802-015**
Instrument ID	**: BNA7**	**Ical Ref**	**: ICAL12834**
Calibration dates	**: 08/30/16 14:14 08/30/16 18:25**		

Calibration Files
10 =F708301602.D 50 =F708301603.D 100 =F708301604.D 500 =F708301605.D 1000=F708301606.D
5000=F708301607.D 1e4 =F708301608.D

	Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)	1,4-Dioxane-d8 (IS)	----------ISTD----------								
2)	1,4-dioxane	1.512	1.459	1.460	1.426	1.483	1.359	1.332	1.433	4.59
3) I	1,4-Dichlorobenzene-d4	----------ISTD----------								
4) s	1,4-dioxane-d8	0.444	0.399	0.403	0.425	0.430	0.430	0.418	0.421	3.81

Continuing Calibration
Form 7

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902	
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015	
Instrument ID	: BNA7	**Calibration Date**	: 08/31/16 17:15	
Lab File ID	: F708311604	**Init. Calib. Date(s)**	: 08/30/16	08/30/16
Sample No	: WG927825-3	**Init. Calib. Times**	: 14:14	18:25
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	92	0
1,4-dioxane	1.433	1.438	-	-0.3	20	89	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	100	0
1,4-dioxane-d8	0.421	0.394	-	6.4	20	91	0

* Value outside of QC limits.

Continuing Calibration
Form 7

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902	
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015	
Instrument ID	: BNA7	**Calibration Date**	: 09/01/16 03:12	
Lab File ID	: F708311618	**Init. Calib. Date(s)**	: 08/30/16	08/30/16
Sample No	: WG927825-6	**Init. Calib. Times**	: 14:14	18:25
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	104	0
1,4-dioxane	1.433	1.428	-	0.3	20	100	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	119	0
1,4-dioxane-d8	0.421	0.376	-	10.7	20	103	0

* Value outside of QC limits.

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA7	**Analysis Date**	: 08/31/16 17:15
Sample No	: WG927825-3	**Lab File ID**	: F708311604

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG927825-3	49205	15.97				
Upper Limit	98410	16.47				
Lower Limit	24603	15.47				
Sample ID						
WG926894-1 BLANK	45431	15.97				
WG926894-2 LCS	48284	15.97				
WG926894-3 LCSD	43074	15.97				
RW-4A(62-72)-082516	45241	15.97				
RW-13(71-91)-082516	43011	15.97				
RW-12(130-140)-082516	55584	15.97				
RW-8(204-214)-082516	52177	15.97				
RW-8(163-173)-082516	62082	15.97				
RW-13(100-120)-082516	59410	15.96				
RW-13(150-170)-082616	51109	15.97				
DUP-05-082616	57338	15.97				
RW-10(185-195)-082616	59633	15.97				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1626902
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA7	**Analysis Date**	: 09/01/16 03:12
Sample No	: WG927825-6	**Lab File ID**	: F708311618

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG927825-6	58440	15.97				
Upper Limit	116880	16.47				
Lower Limit	29220	15.47				
Sample ID						
RW-10A(75-85)-082616	50858	15.97				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

ALPHA ANALYTICAL

World Class Chemistry

www.alphalab.com

Lab Number: L1627228

Client: Cornerstone/Cadena Co. joint acc

ATTN: Jim Tomalia

Project Name: FORD-RINGWOOD

Project Number: 140802-015

September 21, 2016

Data Deliverable Revision Narrative
Alpha SDG: L1627228
Client: Cornerstone Environmental Group, LLC
Site: FORD-RINGWOOD

This data package replaces the data package issued on September 2, 2016. The package type has changed to DPKG-FULL.

Table of Contents

Table of Contents

Sample Delivery Group Information

Sample Delivery Group Form

Laboratory Job number: L1627228
Project Manager: Nichole Hunt **Review Date:** 09/01/2016
Project Number: 140802-015
Project Name: FORD-RINGWOOD **Received:** 08/30/2016 15:30
Client Account: Cornerstone/Cadena Co. joint account **Received by:** KB

Samples Delivered by: COURIER **Call Tracker #**
Bill Of Laden N/A **Trackingnum**
Coc Present Present

Container Status Intact **Sample IDs** rec'd in MF at 2.3c (9829)

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt 7 **Are samples Properly Preserved?** Yes
Initial pH **preserved in house with** **Final pH**
Other Issues
Chlorine Check N/A

Are VOA/VPH Vials Present? No
Aqueous: Do Vials Contain Head Space? N/A
Soils: Is MeOHCovering the Soil? N/A
Reagent H2O Preserved vials Frozen on N/A
Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
A	Absent	Yes	No	2.9 - IR Gun	No	No

LIMS Chain of Custody

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 22 2016, 11:23 am

Login Number: L1627228

Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015

Received: 30AUG16 Due Date: 07SEP16

Sample #	Client ID	Mat	PR	Collected	Container
L1627228-01	FB-05-082916		1	S0 29AUG16 07:20	2-Amber-A.5
| DPKG-FULL Package Due Date: 09/07/16					
A2-14-DIOXANESIM-PPB,DPKG-FULL,NJDEP					
L1627228-02	RW-14S (135-155) -0		1	S0 29AUG16 08:45	2-Amber-A.5
| Package Due Date: 09/07/16					
A2-14-DIOXANESIM-PPB					
L1627228-03	RW-14D (175-185) -0		1	S0 29AUG16 09:40	6-Amber-A.5
L1627228-03 MSD L1627228-03 MS Package Due Date: 09/07/16					
A2-14-DIOXANESIM-PPB,A2-MS/MSD					
L1627228-04	RW-10A (51-61) -082		1	S0 29AUG16 12:20	2-Amber-A.5
| Package Due Date: 09/07/16					
A2-14-DIOXANESIM-PPB					
L1627228-05	RW-10S (120-130) -0		1	S0 29AUG16 14:30	2-Amber-A.5
| Package Due Date: 09/07/16					
A2-14-DIOXANESIM-PPB					
L1627228-06	RW-9A (85-95) -0830		1	S0 30AUG16 07:20	2-Amber-A.5
| Package Due Date: 09/07/16					
A2-14-DIOXANESIM-PPB					
L1627228-07	RW-9 (206-216) -083		1	S0 30AUG16 09:45	2-Amber-A.5
| Package Due Date: 09/07/16					

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Sep 22 2016, 11:23 am

Login Number: L1627228

Account: CSTONE-CADENACO Cornerstone/Cadena Co. joint accountProject: 140802-015

Received: 30AUG16 Due Date: 07SEP16

Sample #	Client ID	Mat	PR	Collected	Container
A2-14-DIOXANESIM-PPB					

Logged By: Nichole Hunt

Container Tracking

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID	Type	Status	Transaction Date	From Response	From Location	From Operator	To Response	To Location	To Operator
L1627228-01A	Amber-A.5	EMPTY	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1627228-01A	Amber-A.5	INTACT	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1627228-01A	Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-01A	Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-01B	Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-01B	Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-02A	Amber-A.5	EMPTY	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1627228-02A	Amber-A.5	INTACT	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1627228-02A	Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-02A	Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-02B	Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-02B	Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-03A	Amber-A.5	EMPTY	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1627228-03A	Amber-A.5	INTACT	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1627228-03A	Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-03A	Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-03A1	Amber-A.5	EMPTY	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1627228-03A1	Amber-A.5	INTACT	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1627228-03A1	Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-03A1	Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-03A2	Amber-A.5	EMPTY	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1627228-03A2	Amber-A.5	INTACT	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1627228-03A2	Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-03A2	Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-03B	Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey

Container ID Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1627228-03B Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-03B1 Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-03B1 Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-03B2 Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-03B2 Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-04A Amber-A.5	EMPTY	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1627228-04A Amber-A.5	INTACT	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1627228-04A Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-04A Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-04B Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-04B Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-05A Amber-A.5	EMPTY	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1627228-05A Amber-A.5	INTACT	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1627228-05A Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-05A Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-05B Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-05B Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-06A Amber-A.5	EMPTY	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1627228-06A Amber-A.5	INTACT	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz
L1627228-06A Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-06A Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-06B Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-06B Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-07A Amber-A.5	EMPTY	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-ORGANIC PREP	Alyssa Sass	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIDGE	Alyssa Sass
L1627228-07A Amber-A.5	INTACT	01-SEP-16	A2-CUSTODY-REFRIDGE	A2-CUSTODY-REFRIG-A2	Amanda Luiz	A2-ORGANIC PREP	A2-ORGANIC PREP	Amanda Luiz

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1627228-07A	Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-07A	Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt
L1627228-07B	Amber-A.5	INTACT	31-AUG-16	CUSTODY	CUSTODY	Kim L. Bailey	A2-CUSTODY-REFRIG-A2	A2-CUSTODY-REFRIG-A2	Kim L. Bailey
L1627228-07B	Amber-A.5	INTACT	31-AUG-16	LOGIN	LOGIN	Nichole Hunt	CUSTODY	CUSTODY	Nichole Hunt

Chain of Custody

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page of

Date Rec'd in Lab: 8/31/16

ALPHA Job #: L1627228 ~~L1627238~~

Client Information

Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 845-695-0200
Fax:
Email:

Project Information

Project Name: FORD - Ringwood
Project Location: RINGWOOD NJ
Project #: 140802-015
(Use Project name as Project #) ☐ 140802-015
Project Manager: Tim Reeper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	As 1,4 Dioxane SIM PPB							
~~27238~~.01	FB-05-082916	8/29/16	0720	BW	JK	X							
27228.02	RW-14S (135-155)-082916	8/29/16	0845	GW	JK	X							
.03	RW-14D (175-185)-082916	8/29/16	0940	GW	JK	X							
.03	RW-14D (175-185)-082916-MS	8/29/16	0940	GW	JK	X							
.03	RW-14D (175-185)-082916-MSD	8/29/16	0940	GW	JK	X							
.04	RW-10A (51-61)-082916	8/29/16	1220	GW	JK	X							
.05	RW-10S (120-130)-082916	8/29/16	1430	GW	JK	X							
.06	RW-9A (85-95)-083016	8/30/16	0720	GW	JK	X							
.07	RW-9 (206-216)-083016	8/30/16	0945	GW	JK	X							
						Container Type	A						
						Preservative	A						

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

Sample Specific Comments

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Daniel Colbert	8/30/16 1530	BB Baker/AL	8-30-16 1530
BB Baker	8-30-16 1800	Tom Tobin	8-30-16 1800
Tom Tobin	8-30-16 2330	R Phillips	8/30/16 2330
R Phillips	8/31/16 0230	AL Williams	8-31-16 0230
AL Williams	8-31-16 0315	Tim Reeper	8/31/16 0315

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Organics

GCMS Extractables 1,4-Dioxane By SIM

Initial Calibration

Response Factor Report BNA6

Method Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Method File : 14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016
Response Via : Initial Calibration

Calibration Files
10 =F608101604.D 50 =F608101605.D 100 =F608101606.D 500 =F608101607.D 1000=F608101608.D
5000=F608101609.D 1e4 =F608101610.D

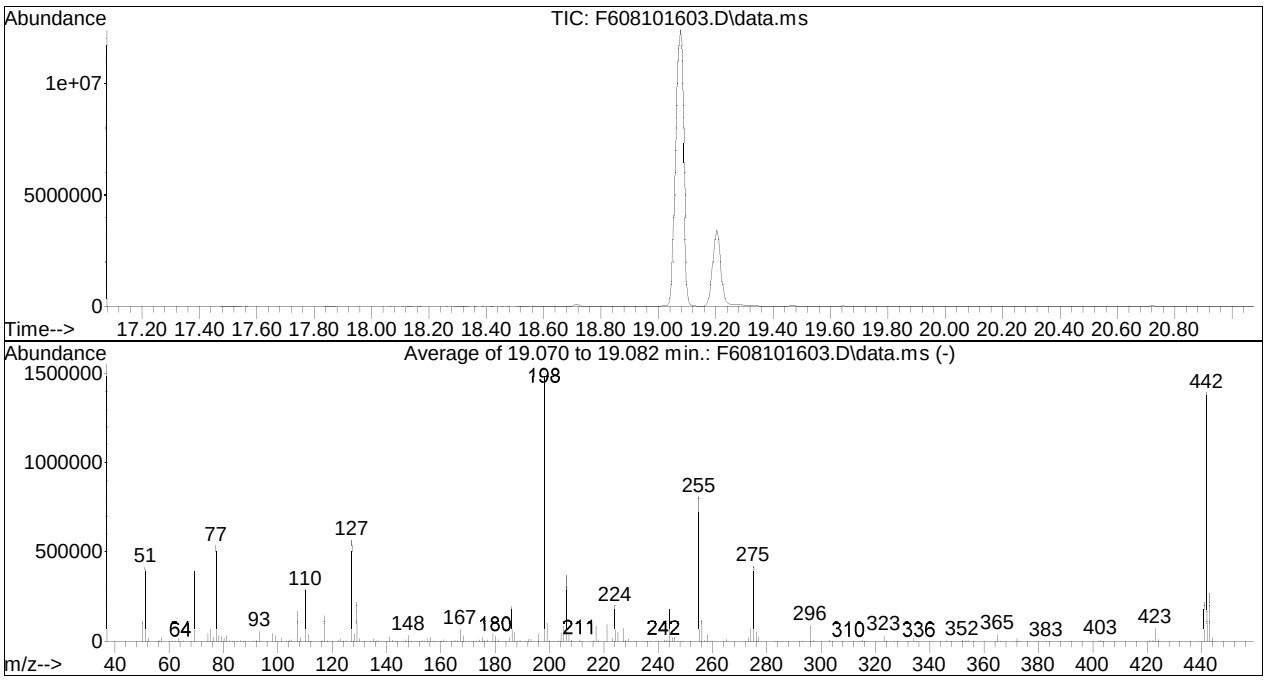
	Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)	1,4-Dioxane-d8 (IS)	ISTD								
2)	1,4-dioxane	1.556	1.402	1.394	1.386	1.470	1.417	1.405	1.433	4.24
3) I	1,4-Dichlorobenzene-d4	ISTD								
4) s	1,4-dioxane-d8	0.428	0.444	0.423	0.441	0.417	0.442	0.435	0.433	2.41

(#) = Out of Range

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101603.D
Acq On : 10 Aug 2016 1:25 pm
Operator : BNA6:SF
Sample : T608101601
Misc : WG921943,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



AutoFind: Scans 1879, 1880, 1881; Background Corrected with Scan 1856

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	28.1	414533	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2219	PASS
127	198	10	80	38.3	565504	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1476097	PASS
199	198	5	9	6.8	100408	PASS
275	198	10	60	28.4	419669	PASS
365	198	1	100	2.8	40728	PASS
441	442	0.01	24	15.6	217472	PASS
442	198	50	100	94.3	1392469	PASS
443	442	15	24	19.4	270059	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101604.D
Acq On : 10 Aug 2016 2:22 pm
Operator : BNA6:SF
Sample : I608101601
Misc : WG921943,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 12:53:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	85056	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.503	152	198789	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	85056	494.380	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 98.88%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.980	88	2647	10.858	ng/mL	98

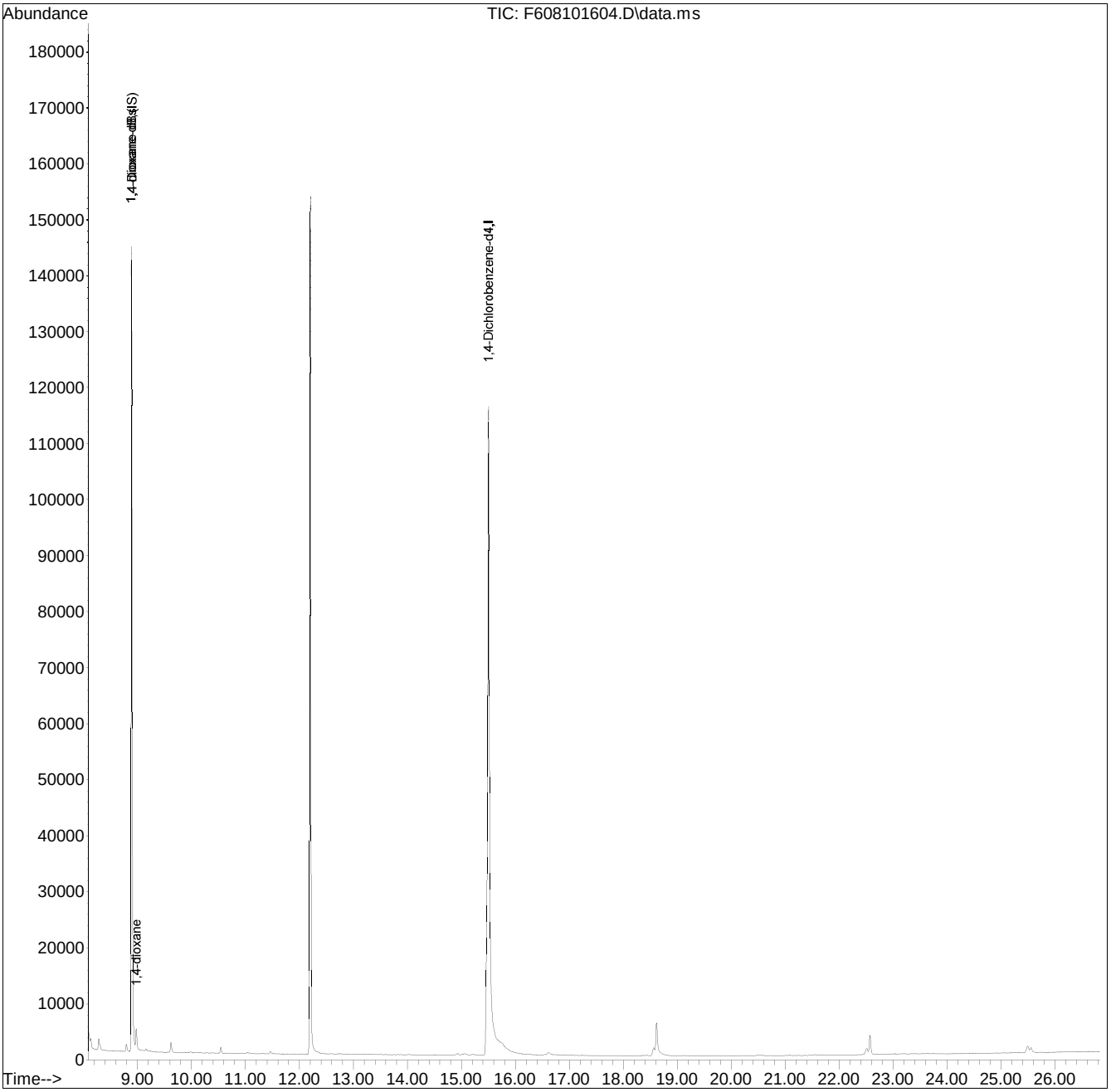
(#) = qualifier out of range (m) = manual integration (+) = signals summed

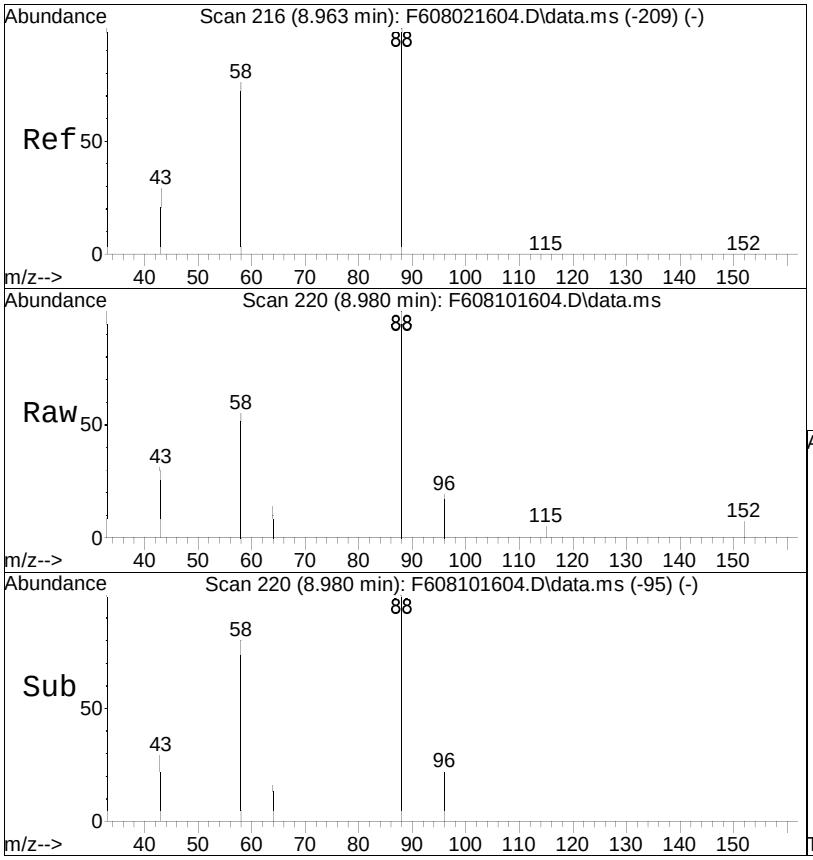
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101604.D
Acq On : 10 Aug 2016 2:22 pm
Operator : BNA6:SF
Sample : I608101601
Misc : WG921943,MSAJ77
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 12:53:30 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

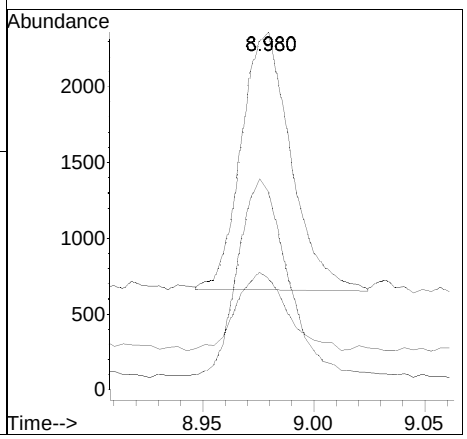




#2
1,4-dioxane
Concen: 10.86 ng/mL
RT: 8.980 min Scan# 220
Delta R.T. 0.008 min
Lab File: F608101604.D
Acq: 10 Aug 2016 2:22 pm

Tgt Ion: 88 Resp: 2647

Ion	Ratio	Lower	Upper
88	100		
58	76.2	62.1	93.1
43	31.4	24.4	36.6



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101604.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 2:22 pm	Instrument	: BNA6
Sample	: I608101601	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101605.D
Acq On : 10 Aug 2016 3:07 pm
Operator : BNA6:SF
Sample : I608101602
Misc : WG921943,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 11 12:53:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	88228	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	198548	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	88228	513.440	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.69%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.984	88	12373	48.930	ng/mL	100

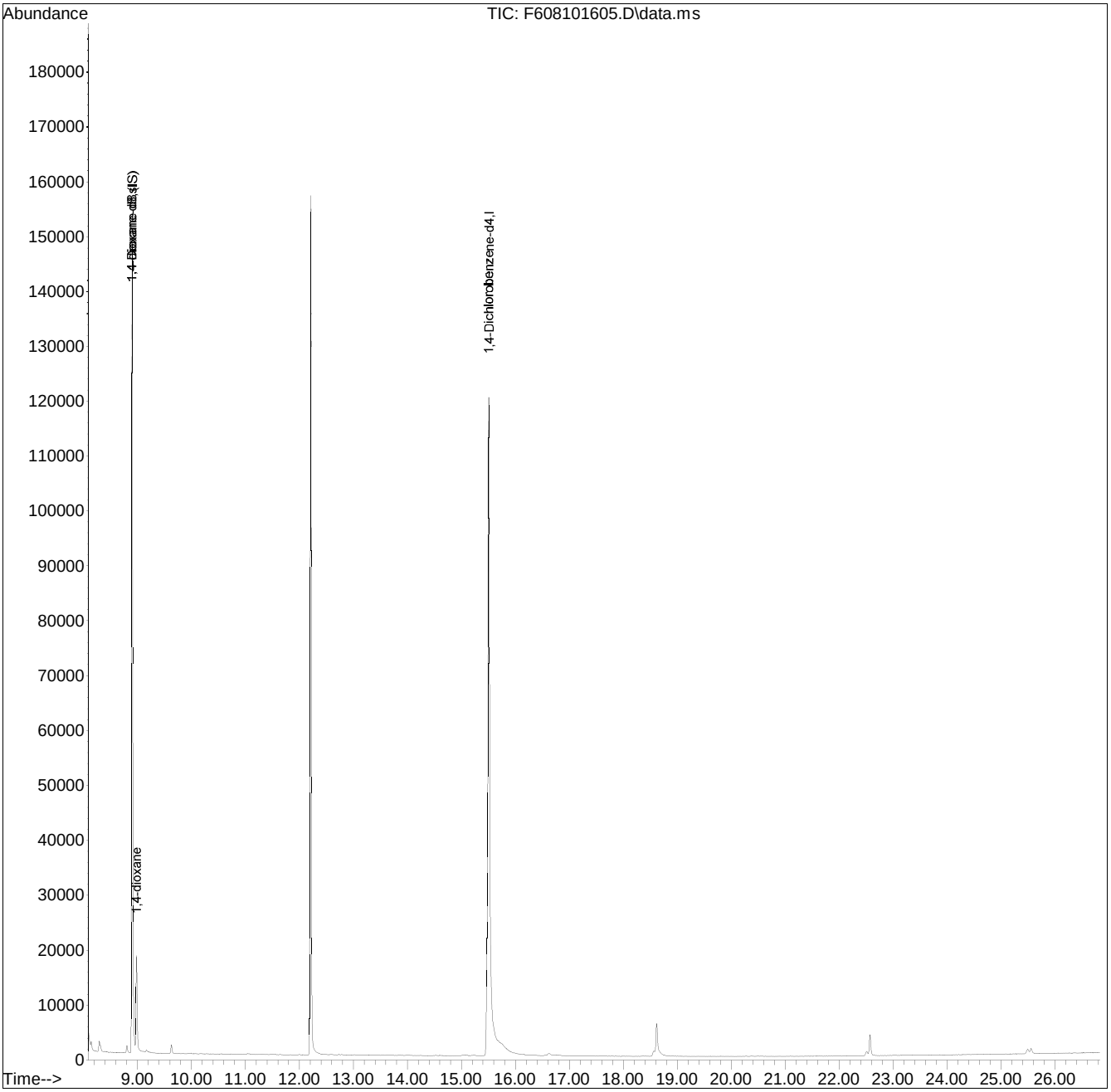
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101605.D
Acq On : 10 Aug 2016 3:07 pm
Operator : BNA6:SF
Sample : I608101602
Misc : WG921943,MSAJ78
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 11 12:53:32 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101605.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 3:07 pm	Instrument	: BNA6
Sample	: I608101602	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101606.D
Acq On : 10 Aug 2016 3:51 pm
Operator : BNA6:SF
Sample : I608101603
Misc : WG921943,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 11 12:53:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	86899	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	205668	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	86899	488.199	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 97.64%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.980	88	24230	97.284	ng/mL	99

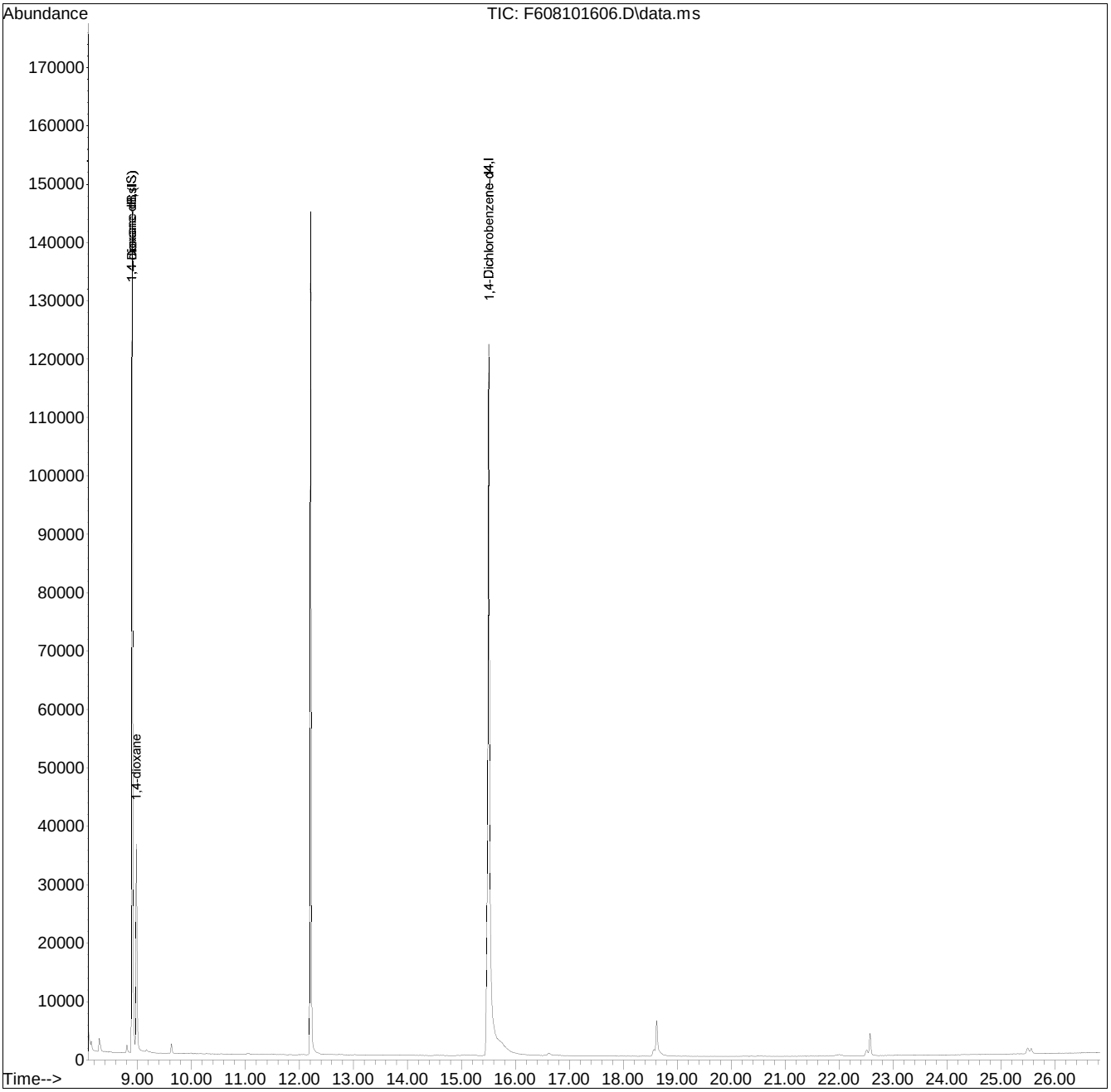
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101606.D
Acq On : 10 Aug 2016 3:51 pm
Operator : BNA6:SF
Sample : I608101603
Misc : WG921943,MSAJ79
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 11 12:53:34 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101606.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 3:51 pm	Instrument	: BNA6
Sample	: I608101603	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101607.D
Acq On : 10 Aug 2016 4:36 pm
Operator : BNA6:SF
Sample : I608101604
Misc : WG921943,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 11 12:53:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

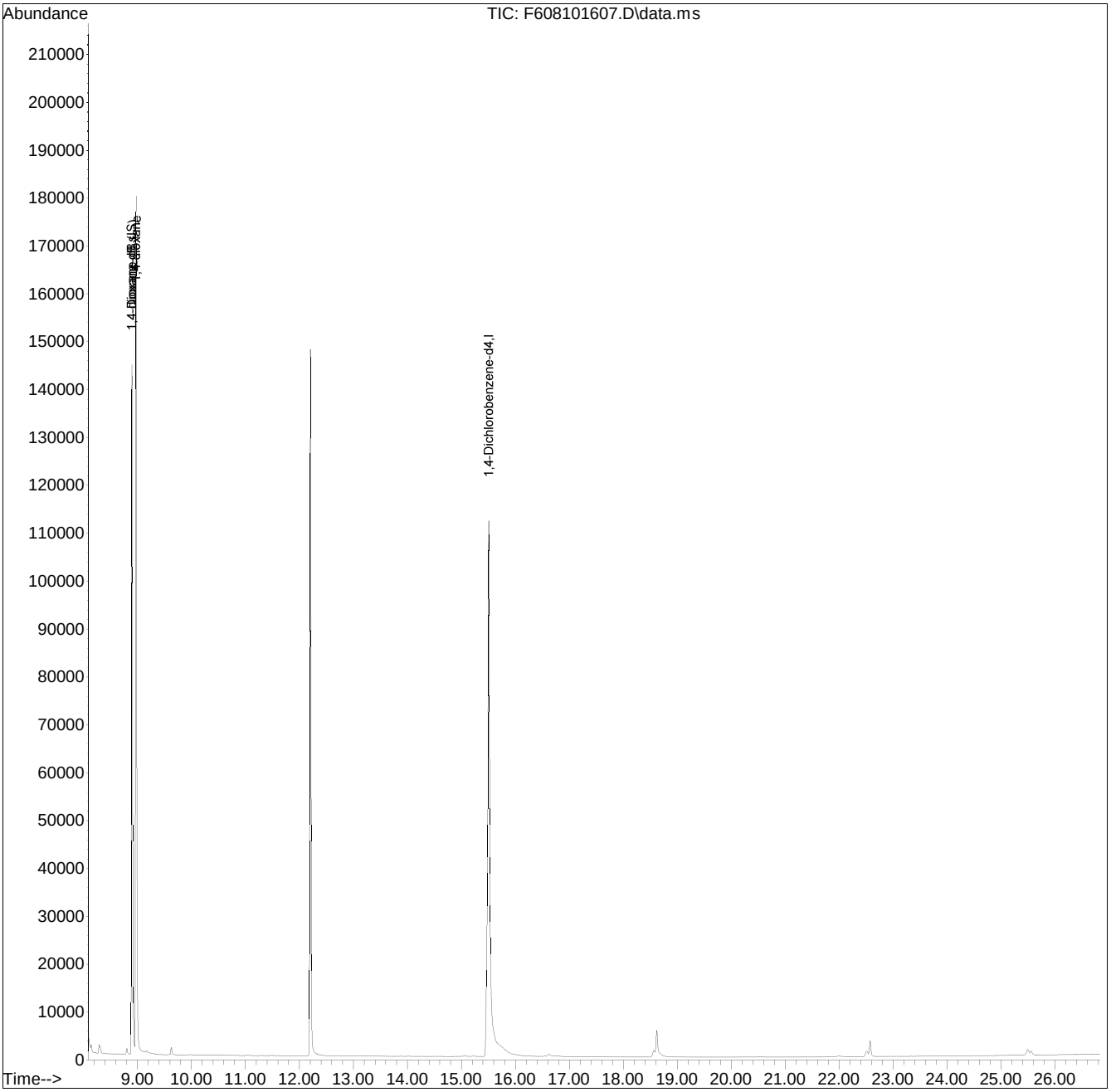
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	86585	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	196925	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	86794M4	509.257	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 101.85%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.972	88	120017M4	483.619	ng/mL	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101607.D
Acq On : 10 Aug 2016 4:36 pm
Operator : BNA6:SF
Sample : I608101604
Misc : WG921943,MSAJ80
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 11 12:53:36 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

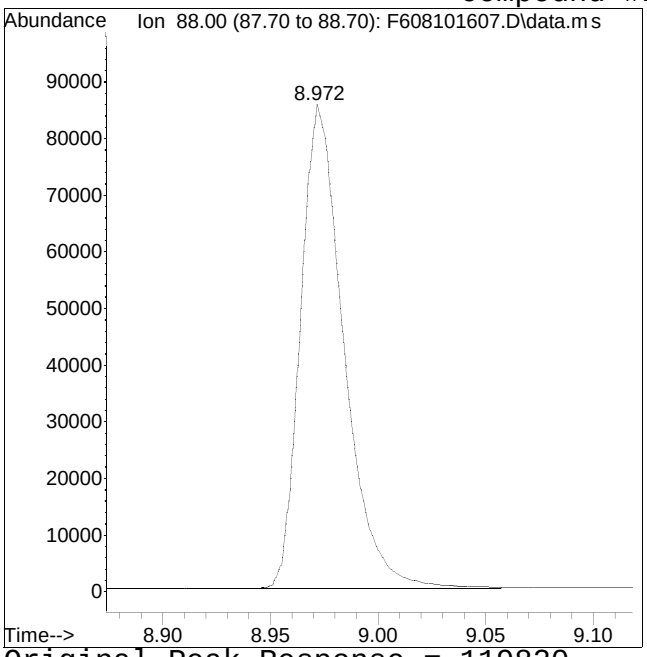
Sub List : Default - All compounds listed



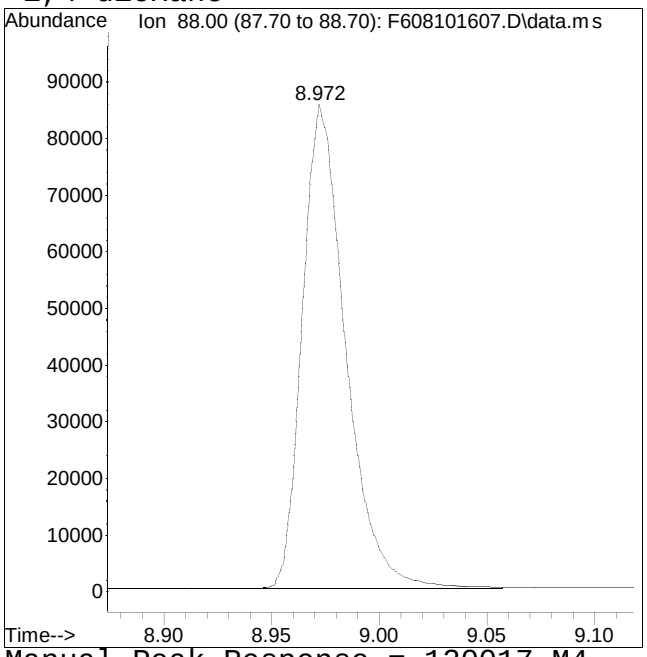
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101607.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 4:36 pm Instrument : BNA6
Sample : I608101604 Quant Date : 8/11/2016 12:53 pm

Compound #2: 1,4-dioxane



Original Peak Response = 119820



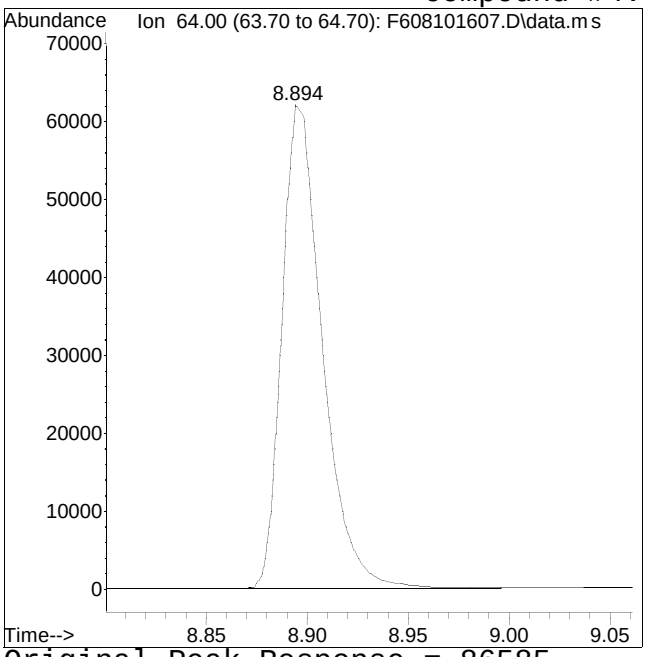
Manual Peak Response = 120017 M4

M4 = Poor automated baseline construction.

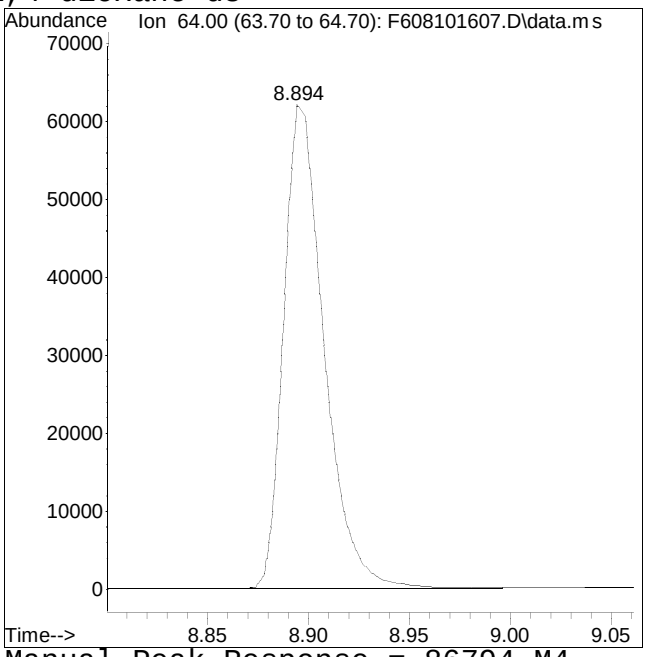
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101607.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 4:36 pm Instrument : BNA6
Sample : I608101604 Quant Date : 8/11/2016 12:53 pm

Compound #4: 1,4-dioxane-d8



Original Peak Response = 86585



Manual Peak Response = 86794 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101608.D
Acq On : 10 Aug 2016 5:21 pm
Operator : BNA6:SF
Sample : I608101605
Misc : WG921943,MSAK15
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 11 12:53:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.898	64	83650	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	200518	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.898	64	83650	482.016	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 96.40%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.971	88	245983	1025.987	ng/mL	99

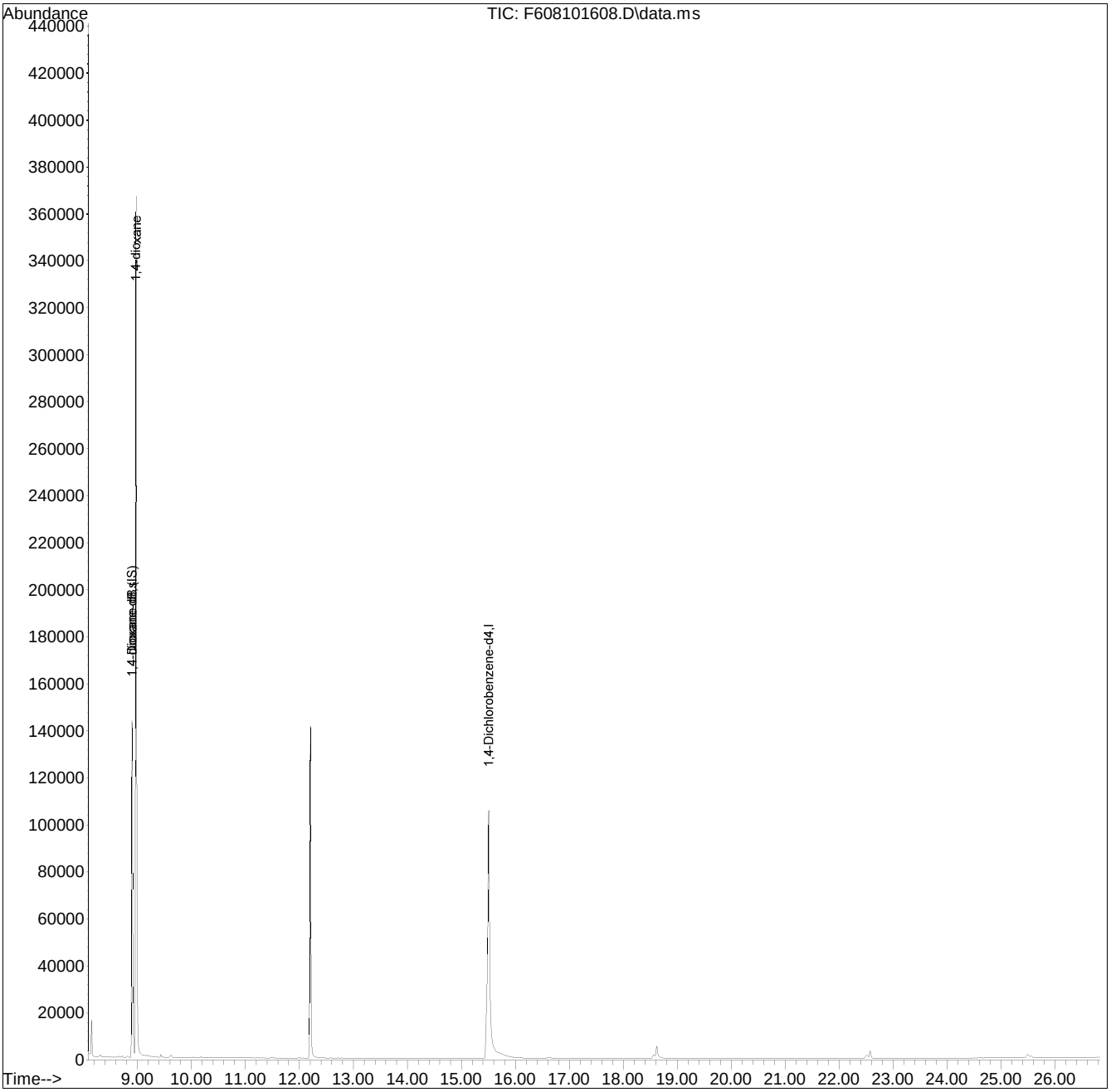
(#) = qualifier out of range (m) = manual integration (+) = signals summed

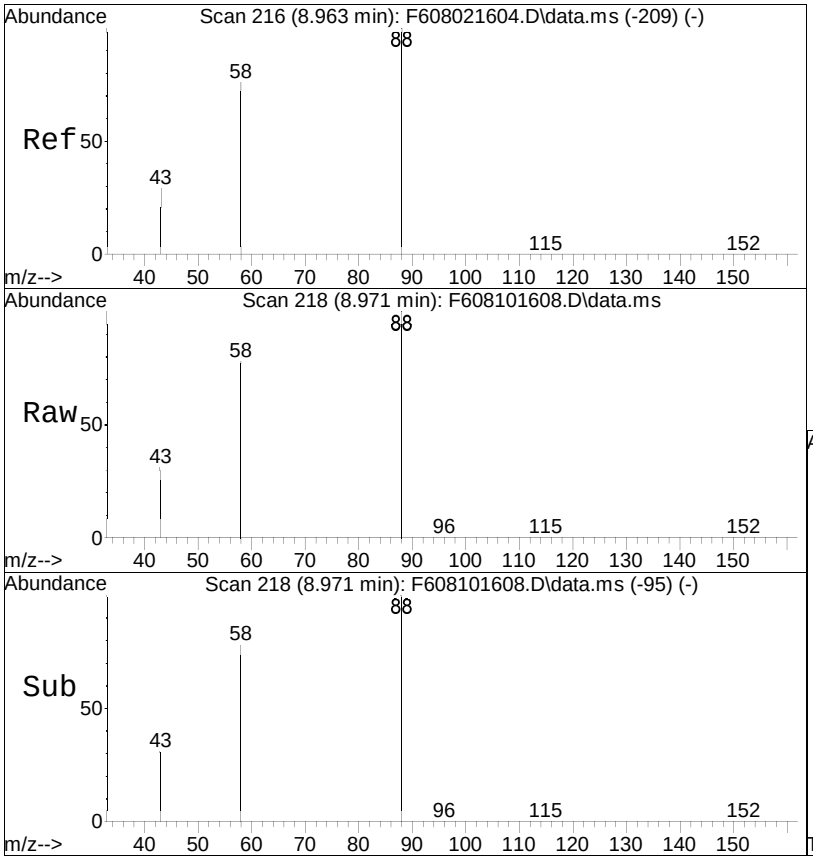
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101608.D
Acq On : 10 Aug 2016 5:21 pm
Operator : BNA6:SF
Sample : I608101605
Misc : WG921943,MSAK15
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 11 12:53:38 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

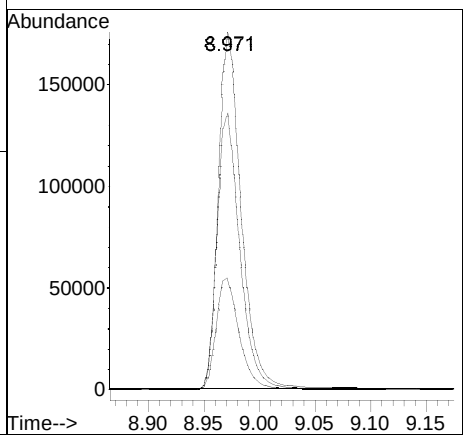




#2
1,4-dioxane
Concen: 1025.99 ng/mL
RT: 8.971 min Scan# 218
Delta R.T. 0.000 min
Lab File: F608101608.D
Acq: 10 Aug 2016 5:21 pm

Tgt Ion: 88 Resp: 245983

Ion	Ratio	Lower	Upper
88	100		
58	78.3	62.1	93.1
43	31.7	24.4	36.6



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101608.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 5:21 pm	Instrument	: BNA6
Sample	: I608101605	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101609.D
Acq On : 10 Aug 2016 6:06 pm
Operator : BNA6:SF
Sample : I608101606
Misc : WG921943,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 11 12:53:40 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.890	64	84632M4	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	191584	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.890	64	84626M4	510.379	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.08%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.963	88	1199636	4945.586	ng/mL	99

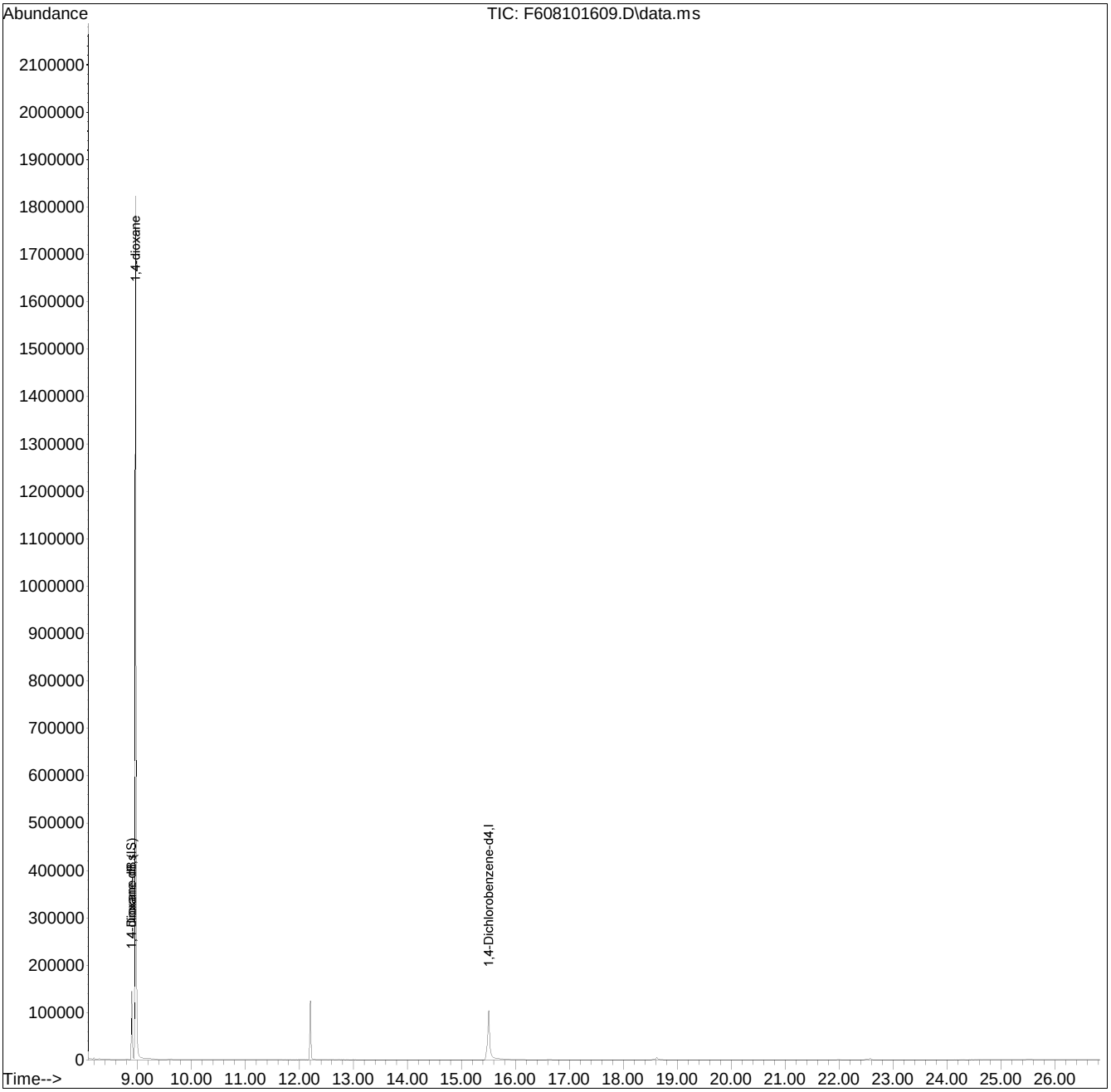
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101609.D
Acq On : 10 Aug 2016 6:06 pm
Operator : BNA6:SF
Sample : I608101606
Misc : WG921943,MSAJ82
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 11 12:53:40 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

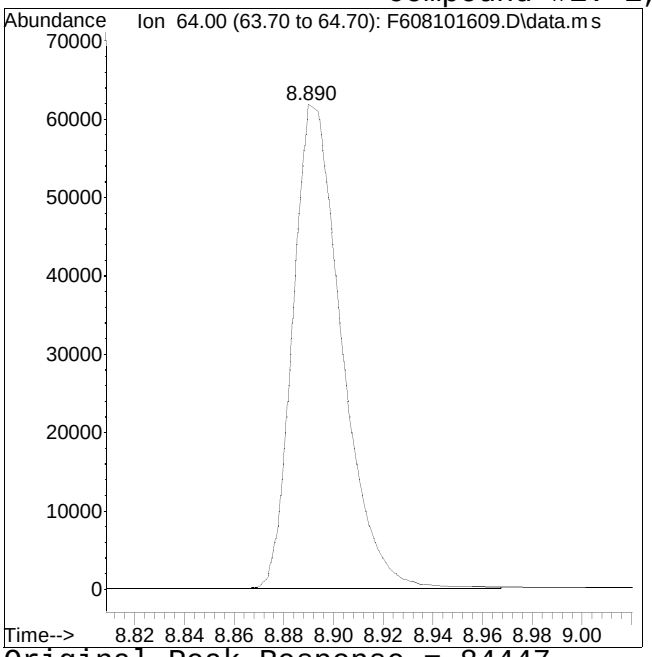
Sub List : Default - All compounds listed



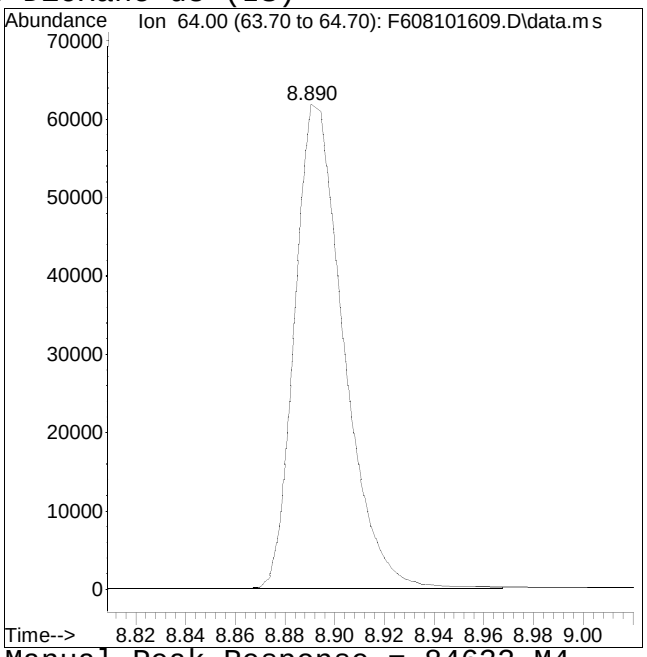
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101609.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 6:06 pm Instrument : BNA6
Sample : I608101606 Quant Date : 8/11/2016 12:53 pm

Compound #1: 1,4-Dioxane-d8 (IS)



Original Peak Response = 84447



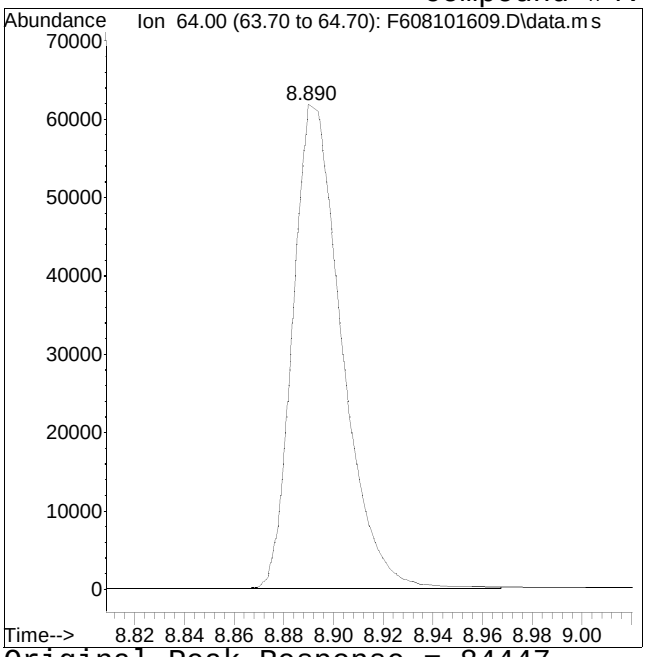
Manual Peak Response = 84632 M4

M4 = Poor automated baseline construction.

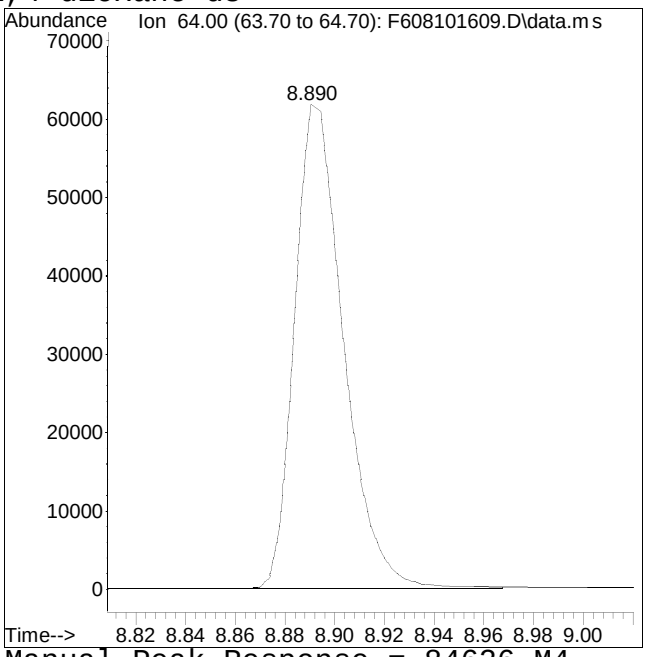
Manual Integration/Negative Proof Report

Data Path : O:\Organics\DATA\BNA6\2016\ QMethod : 14DIOX0810BNA6.M
Data File : F608101609.D Operator : BNA6:SF
Date Inj'd : 8/10/2016 6:06 pm Instrument : BNA6
Sample : I608101606 Quant Date : 8/11/2016 12:53 pm

Compound #4: 1,4-dioxane-d8



Original Peak Response = 84447



Manual Peak Response = 84626 M4

M4 = Poor automated baseline construction.

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101610.D
Acq On : 10 Aug 2016 6:51 pm
Operator : BNA6:SF
Sample : I608101607
Misc : WG921943,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 11 12:53:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.882	64	82789	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.503	152	190429	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.882	64	82789	502.329	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 100.47%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	2326389	9804.210	ng/mL	99

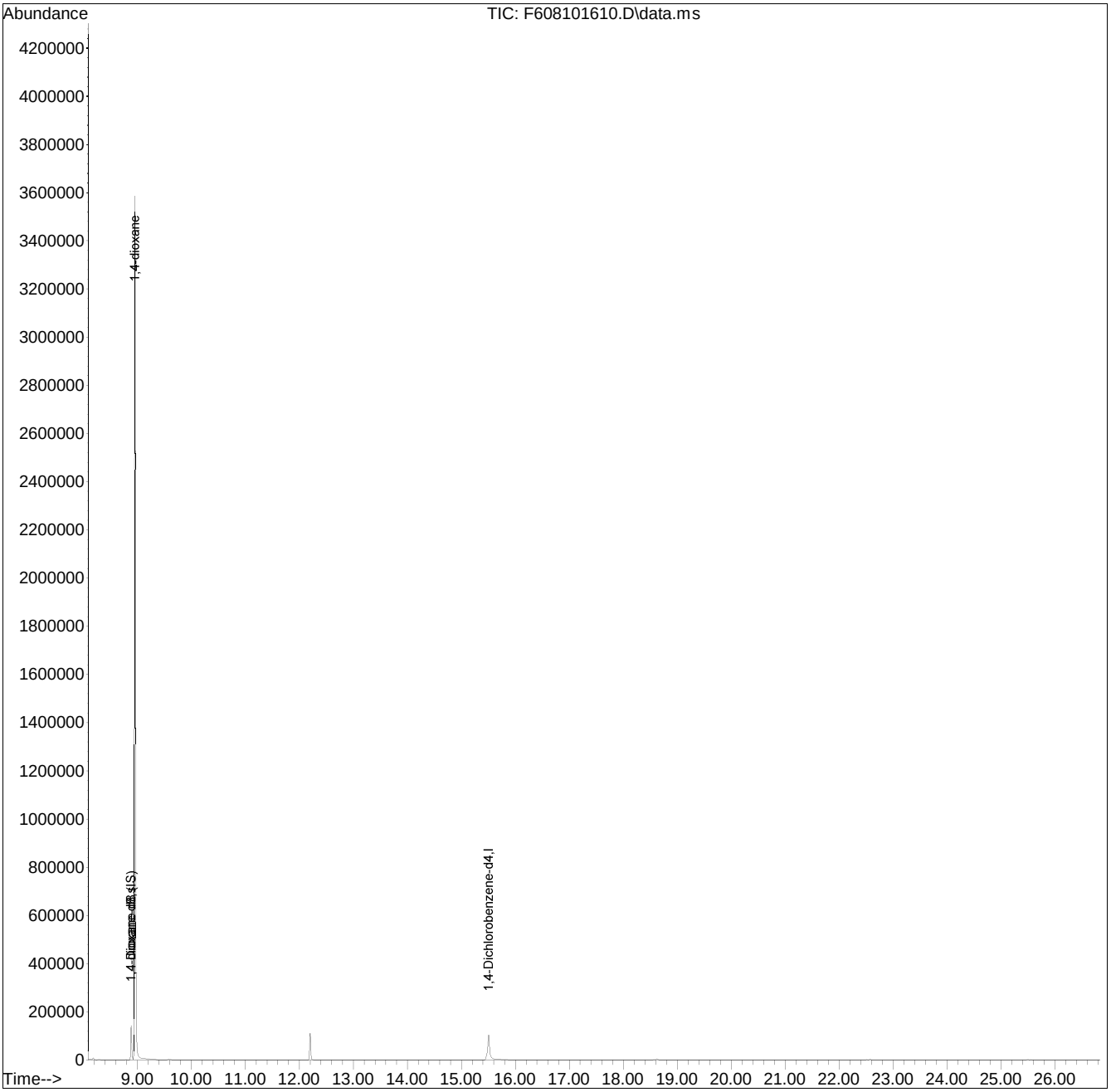
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101610.D
Acq On : 10 Aug 2016 6:51 pm
Operator : BNA6:SF
Sample : I608101607
Misc : WG921943,MSAJ76
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 11 12:53:42 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101610.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 6:51 pm	Instrument	: BNA6
Sample	: I608101607	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	98	0.00
2	1,4-dioxane	1.433	1.360	5.1	91	0.00
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
4 s	1,4-dioxane-d8	0.433	0.442	-2.1	97	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.894	64	82343	500.000	ng/mL	0.00
3) 1,4-Dichlorobenzene-d4	15.507	152	186413	500.000	ng/mL	0.00
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.894	64	82343	510.386	ng/mL	0.00
Spiked Amount 500.000	Range 15 - 115		Recovery = 102.08%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.968	88	223932	948.839	ng/mL	99

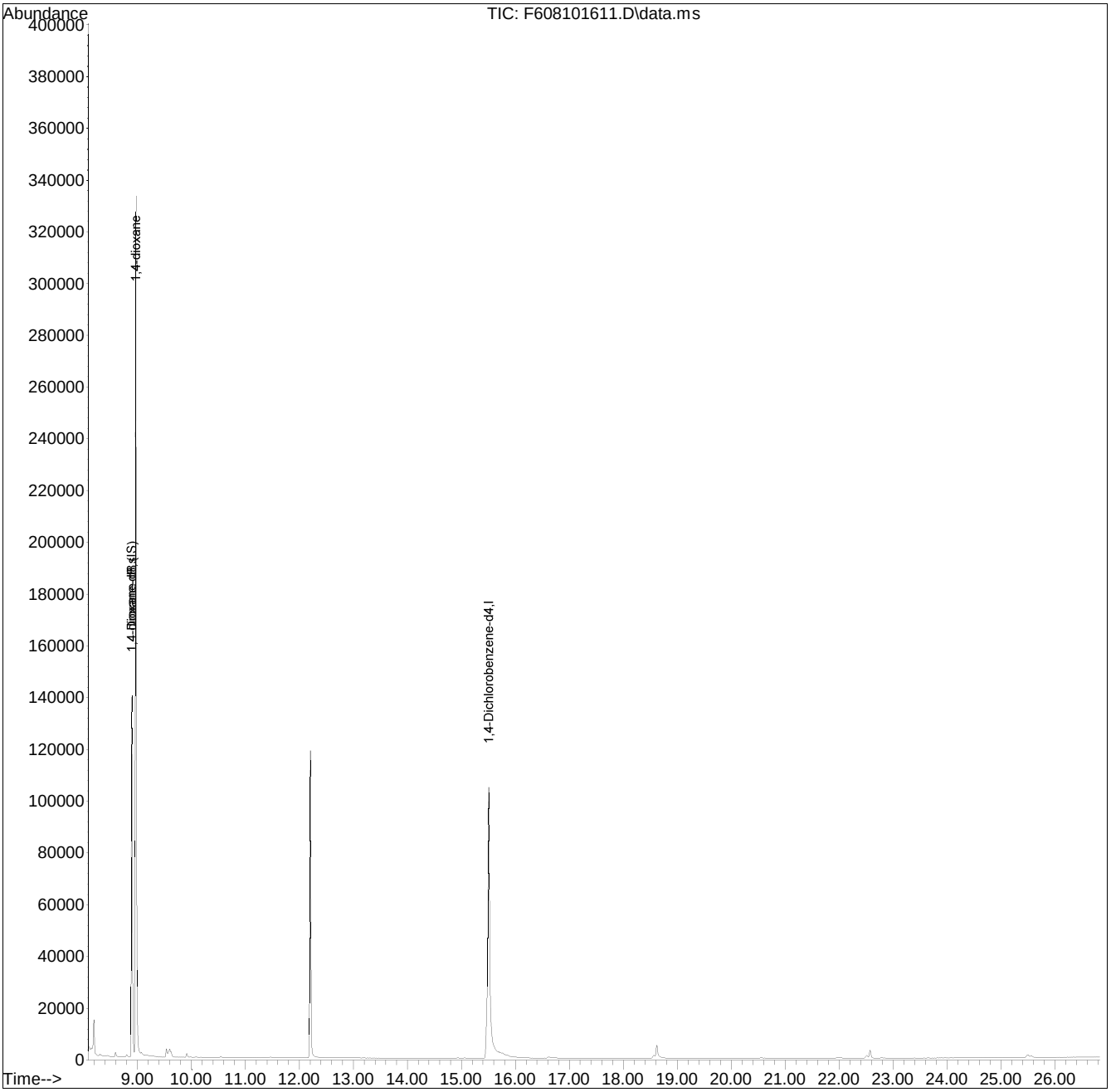
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Aug\Aug10\
Data File : F608101611.D
Acq On : 10 Aug 2016 7:36 pm
Operator : BNA6:SF
Sample : CQ608101601
Misc : WG921943,MSAJ49
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Aug 11 12:53:54 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Aug\Aug10\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Manual Integration/Negative Proof Report

Data Path	: O:\Organics\DATA\BNA6\2016\	QMethod	: 14DIOX0810BNA6.M
Data File	: F608101611.D	Operator	: BNA6:SF
Date Inj'd	: 8/10/2016 7:36 pm	Instrument	: BNA6
Sample	: CQ608101601	Quant Date	: 8/11/2016 12:53 pm

There are no manual integrations or false positives in this file.

Work Group

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Sep 20 2016, 03:59 pm

Work Group: WG928084 for Department: 2 Organic Preparation

Created: 01-SEP-16 Due: Operator: AL

Sample	Client ID	C	Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1626970-09	DUP-1	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0901	0912	S0	Amber-A.5
L1626970-10	FIELD BLANK	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0902	0912	S0	Amber-A.5
L1627228-01	FB-05-082916	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0905	0907	S0	Amber-A.5
L1627228-02	RW-14S (135-155) -08	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0905	0907	S0	Amber-A.5
L1627228-03	RW-14D (175-185) -08	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0905	0907	S0	Amber-A.5
L1627228-04	RW-10A (51-61) -0829	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0905	0907	S0	Amber-A.5
L1627228-05	RW-10S (120-130) -08	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0905	0907	S0	Amber-A.5
L1627228-06	RW-9A (85-95) -08301	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0906	0907	S0	Amber-A.5
L1627228-07	RW-9 (206-216) -0830	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0906	0907	S0	Amber-A.5
L1627319-01	MAHWAH RO-TYPE II	S	A2-14-DIOXANESIM-PPB	WATER	DONE	I	0907	0915	NC	Amber-A.5
L1627338-01	GW-3 (64-69)	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U	0907	0915	S0	Amber-A.5
WG928084-1	Laboratory Method Bl	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG928084-2	Laboratory Control S	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG928084-3	LCS Duplicate	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG928084-4	Matrix Spike	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				
WG928084-5	Matrix Spike Duplica	S	A2-14-DIOXANESIM-PPB	WATER	DONE	U				

Comments:

WG928084-3	WG928084-2
WG928084-4	L1627228-03
WG928084-5	L1627228-03

Sequence Logs

Analysis log File SF 081116

Total Files Reported in Log : 11
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Aug\Aug10\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F608101601.D	14DIOXDFTPPB	TUNE	MSAK38	8/10/2016 11:28 am
2	F608101602.D	14DIOXBNA6.M	CCV	MSAK15	8/10/2016 12:25 pm
3	F608101603.D	14DIOXDFTPPB	T608101601	WG921943,MSAK38	8/10/2016 1:25 pm
4	F608101604.D	14DIOXBNA6.M	I608101601	WG921943,MSAJ77	8/10/2016 2:22 pm
5	F608101605.D	14DIOXBNA6.M	I608101602	WG921943,MSAJ78	8/10/2016 3:07 pm
6	F608101606.D	14DIOXBNA6.M	I608101603	WG921943,MSAJ79	8/10/2016 3:51 pm
7	F608101607.D	14DIOXBNA6.M	I608101604	WG921943,MSAJ80	8/10/2016 4:36 pm
8	F608101608.D	14DIOXBNA6.M	I608101605	WG921943,MSAK15	8/10/2016 5:21 pm
9	F608101609.D	14DIOXBNA6.M	I608101606	WG921943,MSAJ82	8/10/2016 6:06 pm
10	F608101610.D	14DIOXBNA6.M	I608101607	WG921943,MSAJ76	8/10/2016 6:51 pm
11	F608101611.D	14DIOXBNA6.M	CQ608101601	WG921943,MSAJ49	8/10/2016 7:36 pm

Analysis log File

Total Files Reported in Log : 22
Log Generated From Directory: O:\Organics\DATA\BNA6\2016\Sep\Sep01\

No.	DATA FILE	INJ METH	SAMPLE NAME	MISC	DATE INJ'D
1	F609011601.D	14DIOXDFTPPB	WG928229-1	WG928229,MSAK38	9/1/2016 11:34 am
2	F609011602.D	14DIOXBNA6.M	WG928229-3	WG928229,MSAK46	9/1/2016 12:30 pm
3	F609011603.D	14DIOXBNA6.M	WG928082-1	WG928229,WG928082..	9/1/2016 3:58 pm
4	F609011604.D	14DIOXBNA6.M	WG928082-2	WG928229,WG928082..	9/1/2016 4:42 pm
5	F609011605.D	14DIOXBNA6.M	WG928082-3	WG928229,WG928082..	9/1/2016 5:26 pm
6	F609011606.D	14DIOXBNA6.M	L1627207-01	WG928229,WG928082..	9/1/2016 6:10 pm
7	F609011607.D	14DIOXBNA6.M	L1626970-09	WG928229,WG928084..	9/1/2016 6:55 pm
8	F609011608.D	14DIOXBNA6.M	L1626970-10	WG928229,WG928084..	9/1/2016 7:39 pm
9	F609011609.D	14DIOXBNA6.M	L1627228-01	WG928229,WG928084..	9/1/2016 8:23 pm
10	F609011610.D	14DIOXDFTPPB	WG928229-4	WG928229,MSAK38	9/1/2016 9:04 pm
11	F609011611.D	14DIOXBNA6.M	WG928229-6	WG928229,MSAK46	9/1/2016 10:00 pm
12	F609011612.D	14DIOXBNA6.M	L1627228-02	WG928229,WG928084..	9/1/2016 10:44 pm
13	F609011613.D	14DIOXBNA6.M	L1627228-03	WG928229,WG928084..	9/1/2016 11:28 pm
14	F609011614.D	14DIOXBNA6.M	WG928084-4	WG928229,WG928084..	9/2/2016 12:12 am
15	F609011615.D	14DIOXBNA6.M	WG928084-5	WG928229,WG928084..	9/2/2016 12:56 am
16	F609011616.D	14DIOXBNA6.M	L1627228-04	WG928229,WG928084..	9/2/2016 1:39 am
17	F609011617.D	14DIOXBNA6.M	L1627228-05	WG928229,WG928084..	9/2/2016 2:23 am
18	F609011618.D	14DIOXBNA6.M	L1627228-06	WG928229,WG928084..	9/2/2016 3:06 am
19	F609011619.D	14DIOXBNA6.M	L1627228-07	WG928229,WG928084..	9/2/2016 3:50 am
20	F609011620.D	14DIOXBNA6.M	L1627319-01	WG928229,WG928084..	9/2/2016 4:34 am
21	F609011621.D	14DIOXBNA6.M	L1627338-01	WG928229,WG928084..	9/2/2016 5:18 am
22	F609011622.D	14DIOXBNA6.M	L1626610-06		9/2/2016 6:01 am

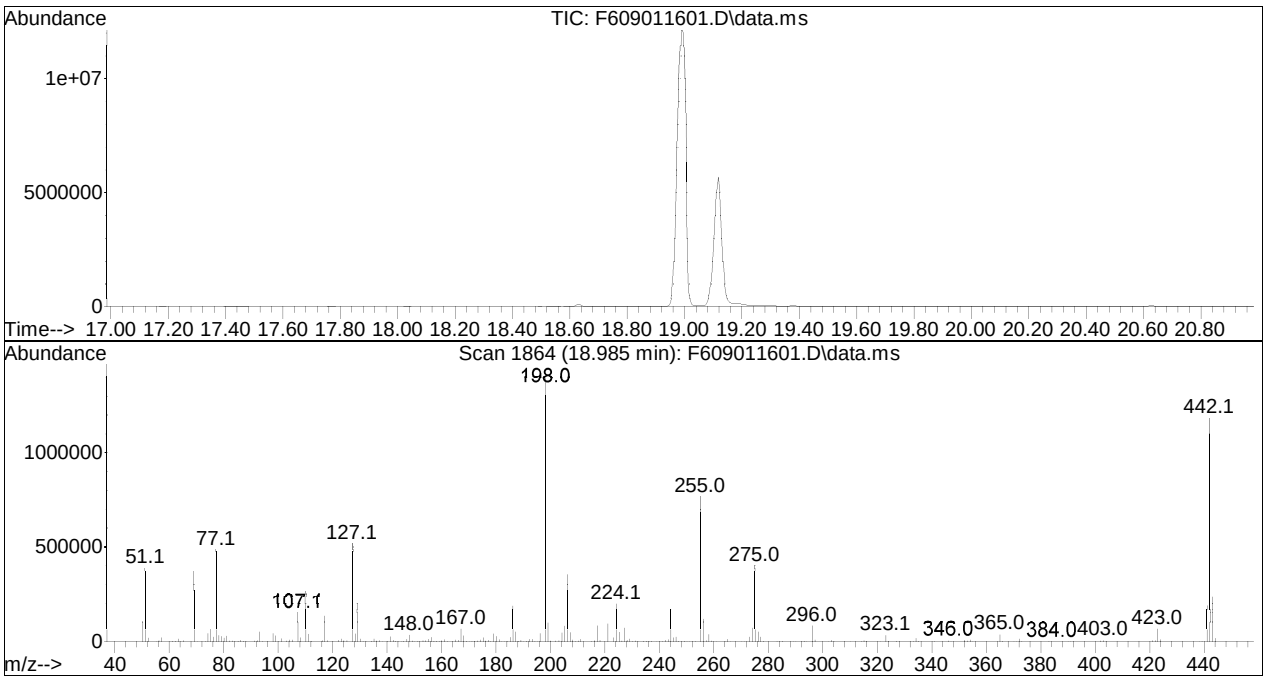
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011601.D
Acq On : 1 Sep 2016 11:34 am
Operator : BNA6:WR
Sample : WG928229-1
Misc : WG928229,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



Spectrum Information: Scan 1864

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	27.7	388032	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2158	PASS
127	198	10	80	37.1	519296	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1398784	PASS
199	198	5	9	7.0	97560	PASS
275	198	10	60	28.7	400832	PASS
365	198	1	100	2.7	37512	PASS
441	442	0.01	24	15.8	187264	PASS
442	198	50	100	84.7	1184256	PASS
443	442	15	24	19.8	234560	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011602.D
Acq On : 1 Sep 2016 12:30 pm
Operator : BNA6:WR
Sample : WG928229-3
Misc : WG928229,MSAK46
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 01 13:05:37 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	100	-0.06
2	1,4-dioxane	1.433	1.364	4.8	93	-0.06
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	115	-0.09
4 s	1,4-dioxane-d8	0.433	0.363	16.2	99	-0.06

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011602.D
Acq On : 1 Sep 2016 12:30 pm
Operator : BNA6:WR
Sample : WG928229-3
Misc : WG928229,MSAK46
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 01 13:05:37 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.833	64	83973	500.000	ng/mL	-0.06
3) 1,4-Dichlorobenzene-d4	15.418	152	231402	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.833	64	83973	419.296	ng/mL	-0.06
Spiked Amount 500.000	Range 15 - 115		Recovery = 83.86%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.906	88	229047	951.673	ng/mL	99

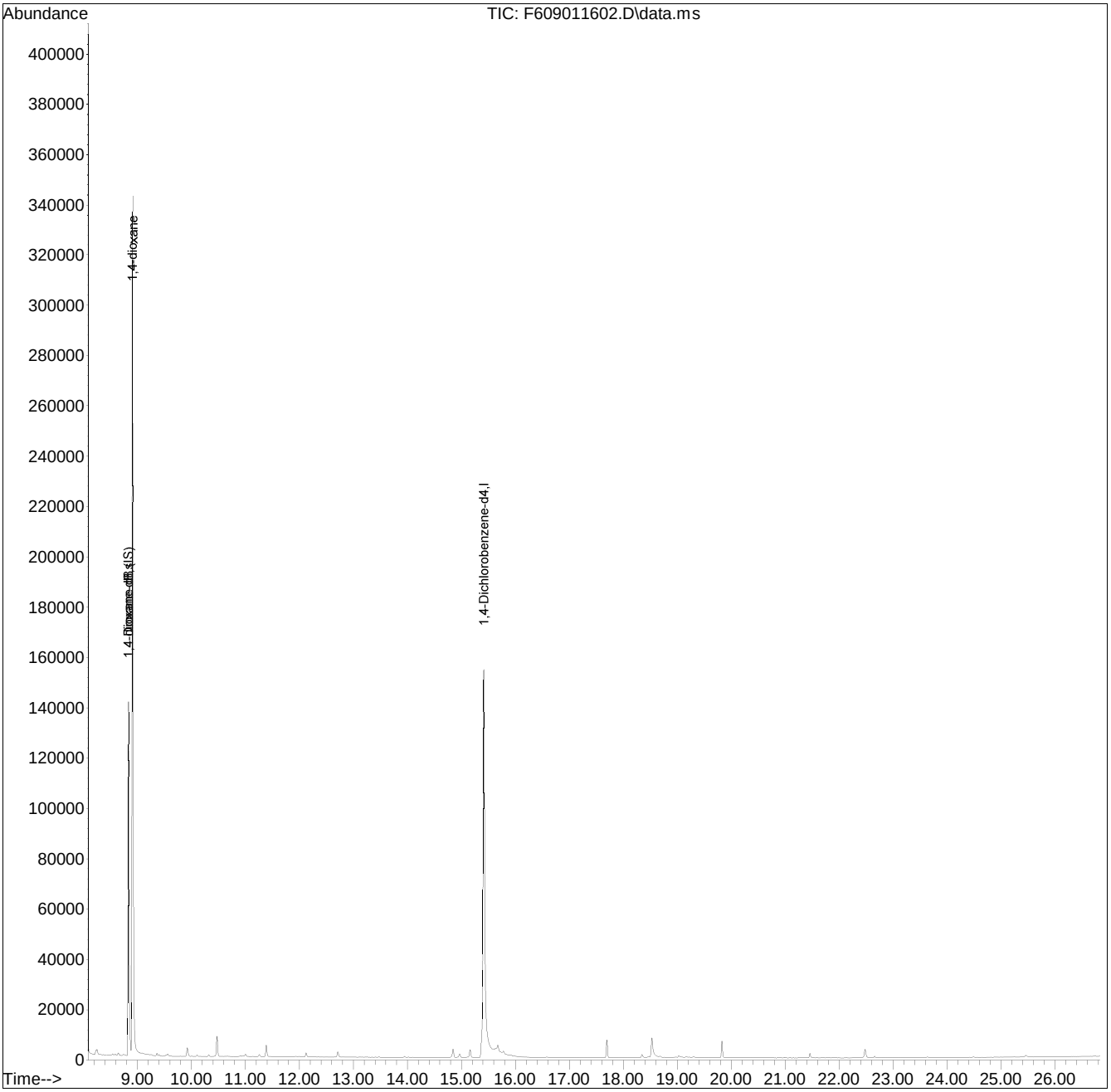
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011602.D
Acq On : 1 Sep 2016 12:30 pm
Operator : BNA6:WR
Sample : WG928229-3
Misc : WG928229,MSAK46
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 01 13:05:37 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011609.D
Acq On : 1 Sep 2016 8:23 pm
Operator : BNA6:WR
Sample : L1627228-01
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 02 08:46:59 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.854	64	14648	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.426	152	174499	500.000	ng/mL	-0.08
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.854	64	14648	96.992	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 19.40%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

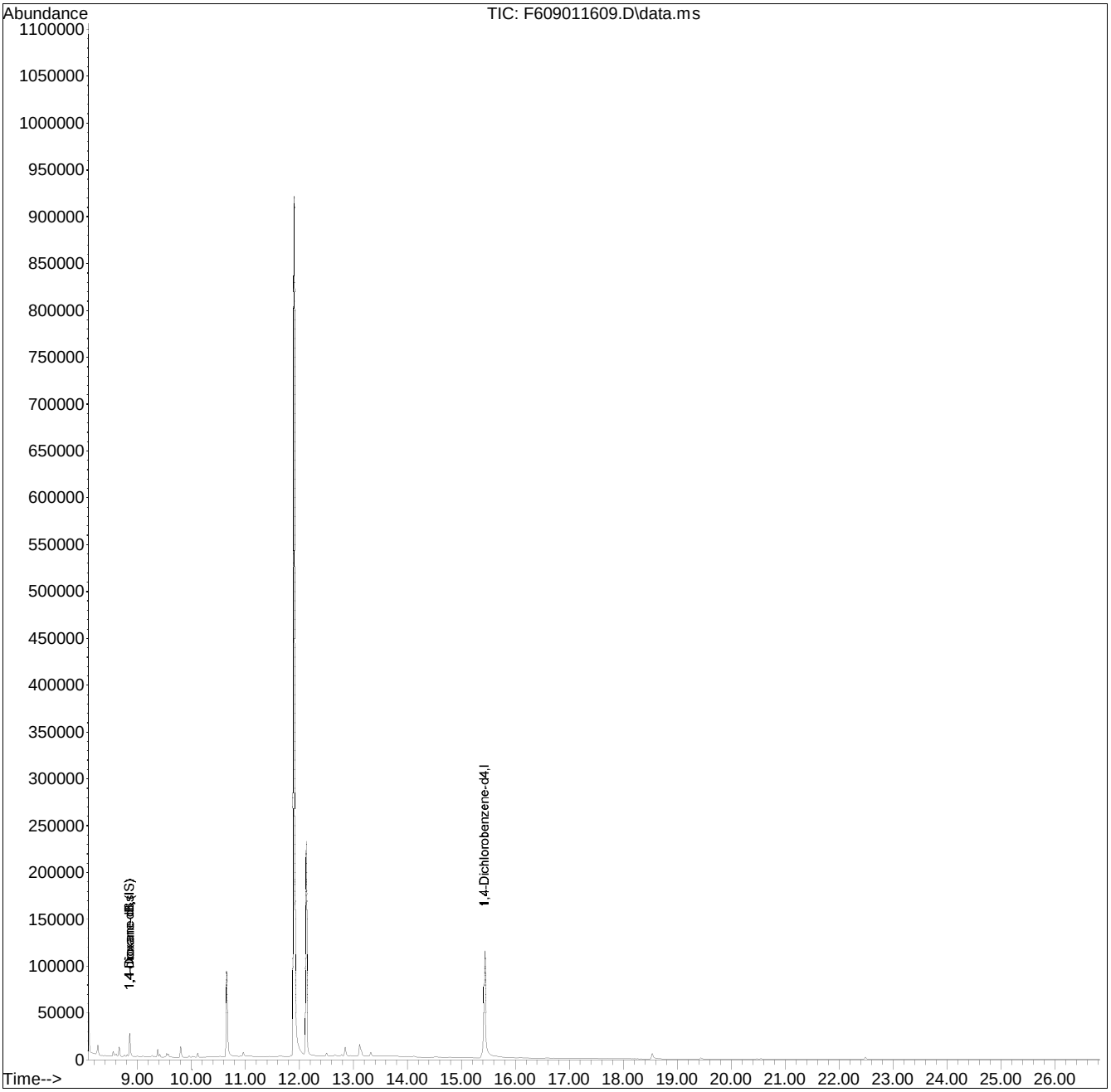
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011609.D
Acq On : 1 Sep 2016 8:23 pm
Operator : BNA6:WR
Sample : L1627228-01
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 02 08:46:59 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



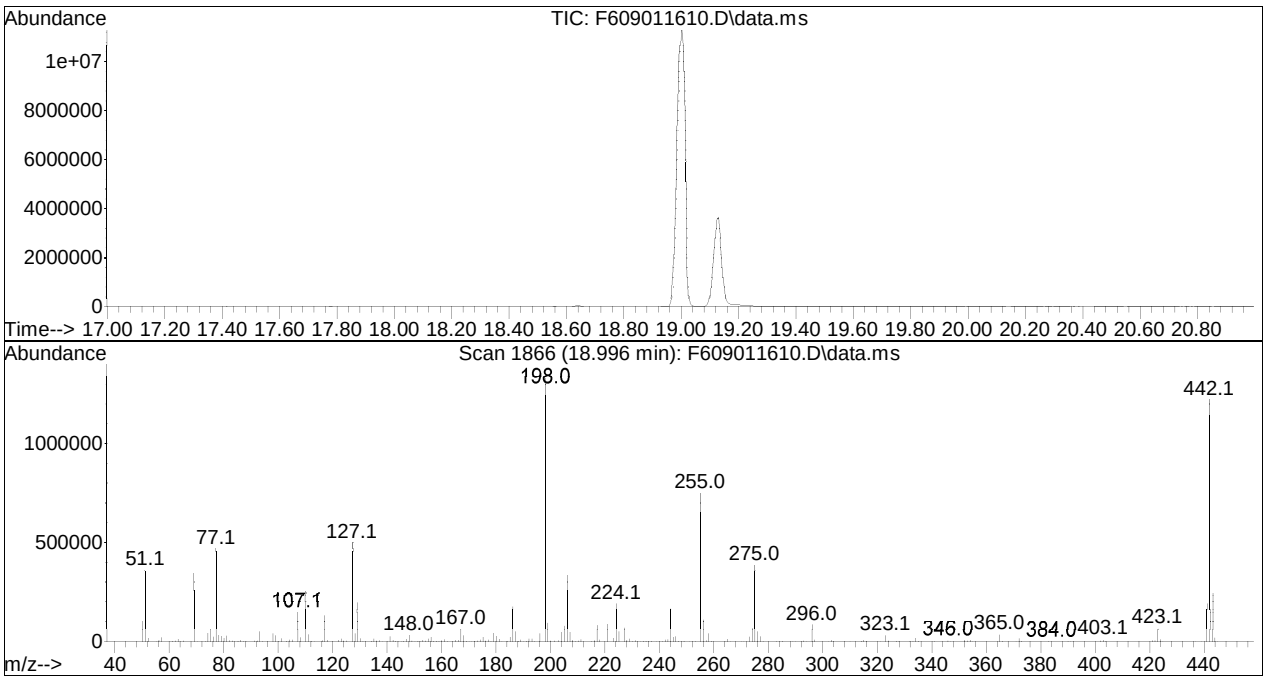
Analytical Event

Continuing Calibration
DFTPP Tune

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011610.D
Acq On : 1 Sep 2016 9:04 pm
Operator : BNA6:WR
Sample : WG928229-4
Misc : WG928229,MSAK38
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Title : Semivolatiles by GC/MS
Last Update : Thu Aug 11 12:52:56 2016



Spectrum Information: Scan 1866

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	26.9	358976	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2088	PASS
127	198	10	80	37.5	499392	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	1333248	PASS
199	198	5	9	6.7	89992	PASS
275	198	10	60	28.8	383744	PASS
365	198	1	100	2.6	35032	PASS
441	442	0.01	24	15.4	187776	PASS
442	198	50	100	91.6	1221632	PASS
443	442	15	24	19.7	240128	PASS

Continuing Calibration

Evaluate Continuing Calibration Report

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011611.D
Acq On : 1 Sep 2016 10:00 pm
Operator : BNA6:WR
Sample : WG928229-6
Misc : WG928229,MSAK46
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 02 08:41:43 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	1,4-Dioxane-d8 (IS)	1.000	1.000	0.0	85	-0.06
2	1,4-dioxane	1.433	1.411	1.5	81	-0.06
3 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	-0.09
4 s	1,4-dioxane-d8	0.433	0.386	10.9	83	-0.06

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011611.D
Acq On : 1 Sep 2016 10:00 pm
Operator : BNA6:WR
Sample : WG928229-6
Misc : WG928229,MSAK46
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 02 08:41:43 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.833	64	70917	500.000	ng/mL	-0.06
3) 1,4-Dichlorobenzene-d4	15.422	152	183756	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.833	64	70917	445.920	ng/mL	-0.06
Spiked Amount 500.000	Range 15 - 115		Recovery = 89.18%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.906	88	200066	984.296	ng/mL	99

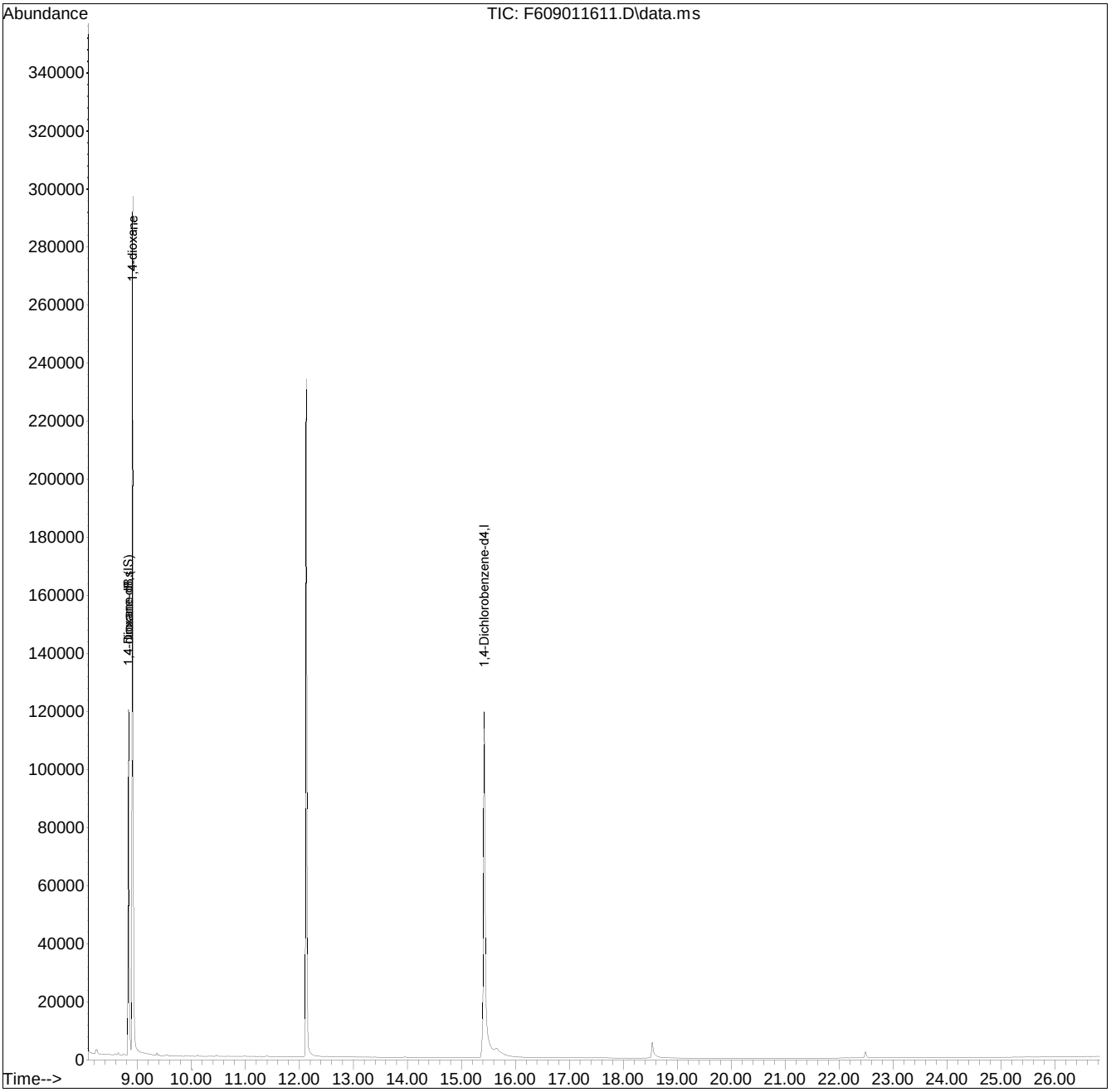
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011611.D
Acq On : 1 Sep 2016 10:00 pm
Operator : BNA6:WR
Sample : WG928229-6
Misc : WG928229,MSAK46
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 02 08:41:43 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Sample Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011612.D
Acq On : 1 Sep 2016 10:44 pm
Operator : BNA6:WR
Sample : L1627228-02
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 02 09:15:55 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

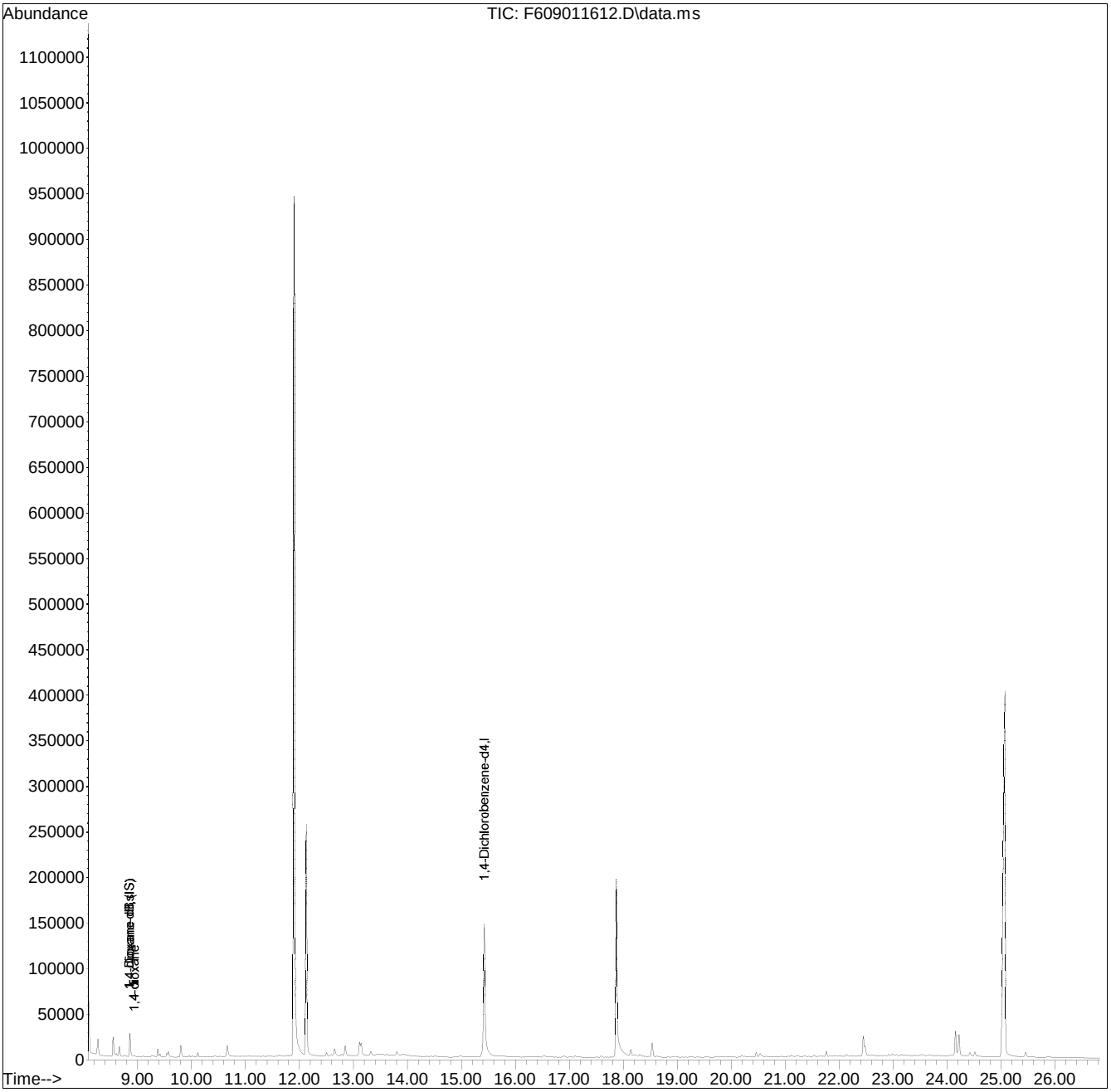
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.858	64	15858	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	207953	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.858	64	15858	88.111	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 17.62%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.943	88	1163M4	25.588	ng/mL	

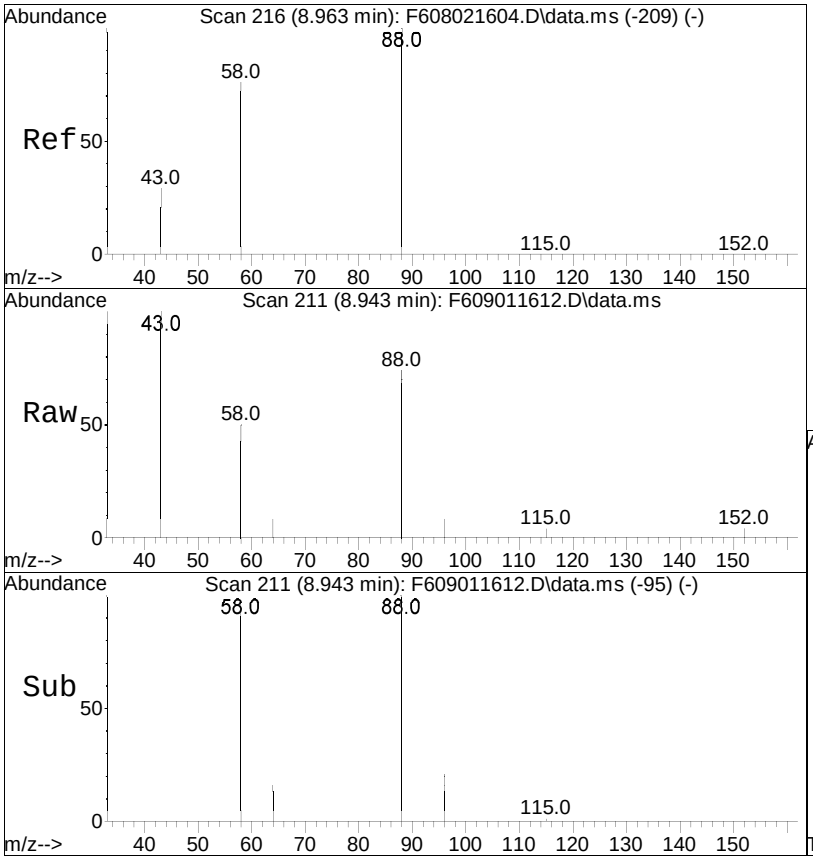
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011612.D
Acq On : 1 Sep 2016 10:44 pm
Operator : BNA6:WR
Sample : L1627228-02
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 02 09:15:55 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

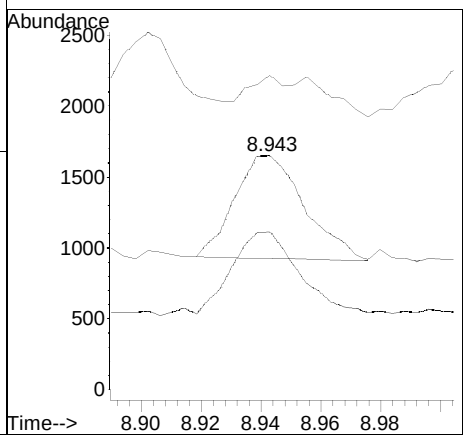




#2
1,4-dioxane
Concen: 25.59 ng/mL M4
RT: 8.943 min Scan# 211
Delta R.T. -0.028 min
Lab File: F609011612.D
Acq: 1 Sep 2016 10:44 pm

Tgt Ion: 88 Resp: 1163

Ion	Ratio	Lower	Upper
88	100		
58	83.7	62.1	93.1
43	35.2	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011613.D
Acq On : 1 Sep 2016 11:28 pm
Operator : BNA6:WR
Sample : L1627228-03
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 02 09:16:46 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.857	64	16626	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	210372	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.857	64	16626	91.316	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 18.26%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.935	88	4728M4	99.218	ng/mL	

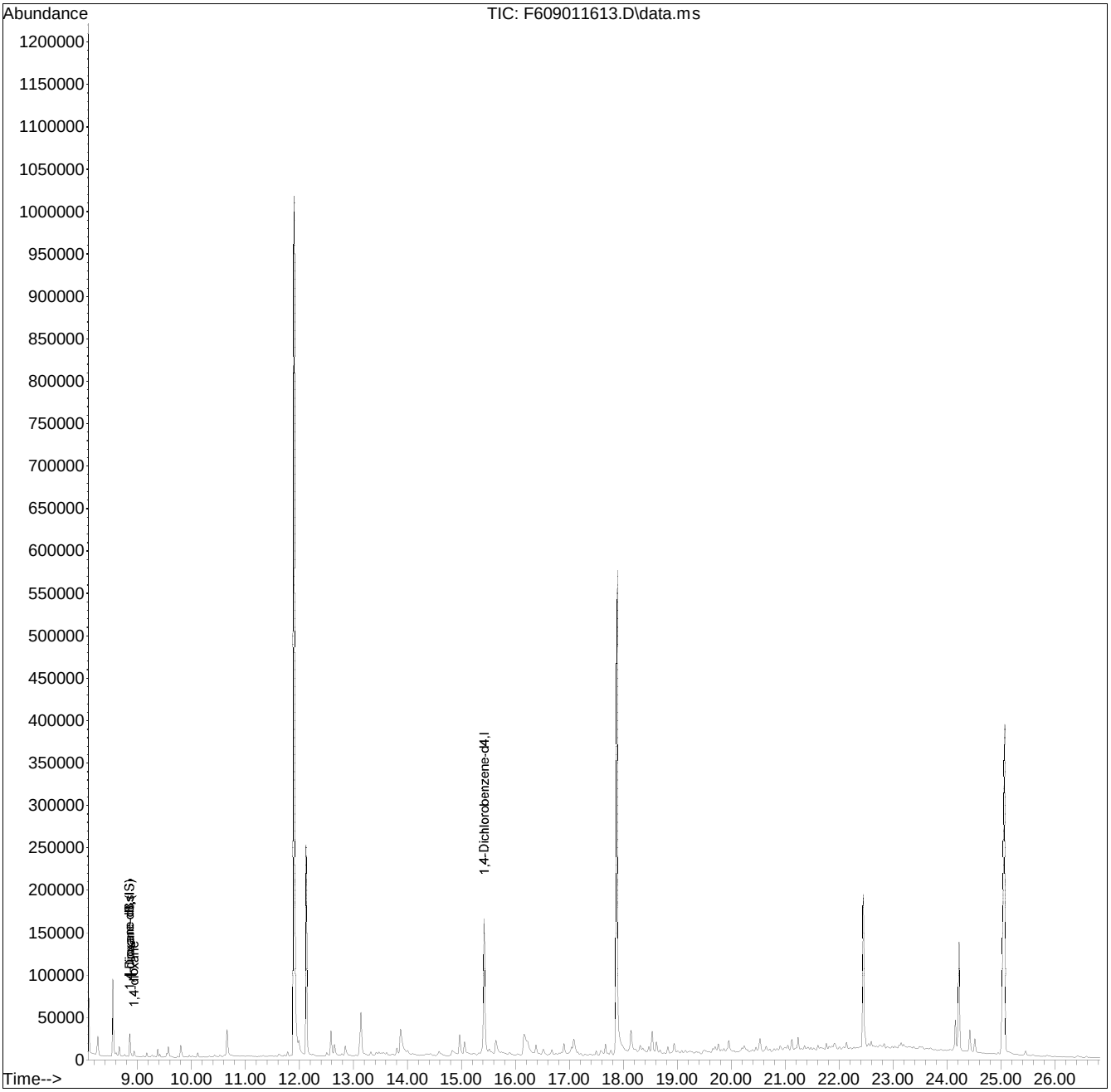
(#) = qualifier out of range (m) = manual integration (+) = signals summed

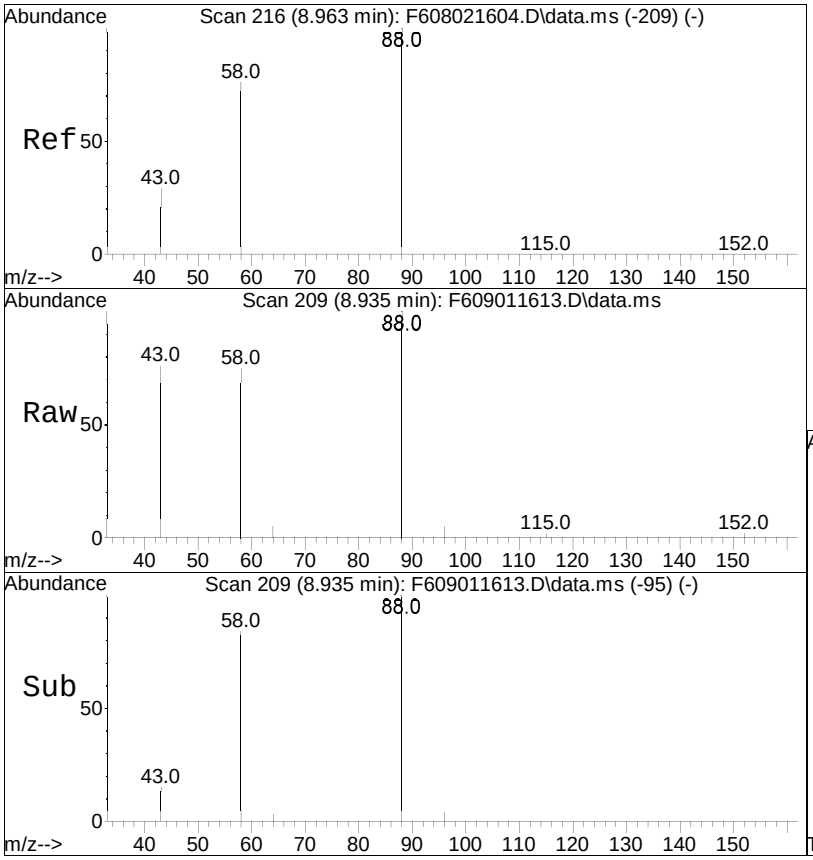
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011613.D
Acq On : 1 Sep 2016 11:28 pm
Operator : BNA6:WR
Sample : L1627228-03
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 02 09:16:46 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

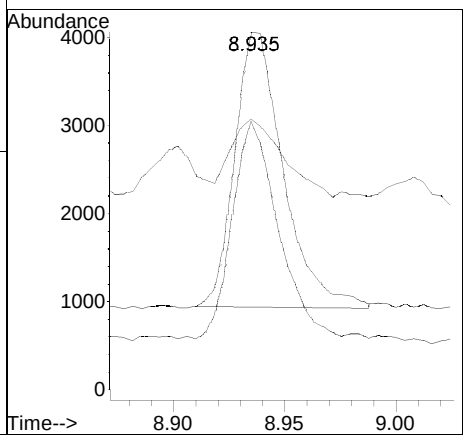




#2
1,4-dioxane
Concen: 99.22 ng/mL M4
RT: 8.935 min Scan# 209
Delta R.T. -0.036 min
Lab File: F609011613.D
Acq: 1 Sep 2016 11:28 pm

Tgt Ion: 88 Resp: 4728

Ion	Ratio	Lower	Upper
88	100		
58	74.7	62.1	93.1
43	30.2	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011616.D
Acq On : 2 Sep 2016 1:39 am
Operator : BNA6:WR
Sample : L1627228-04
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 02 09:18:29 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.853	64	16113	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	191965	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.853	64	16113	96.985	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 19.40%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

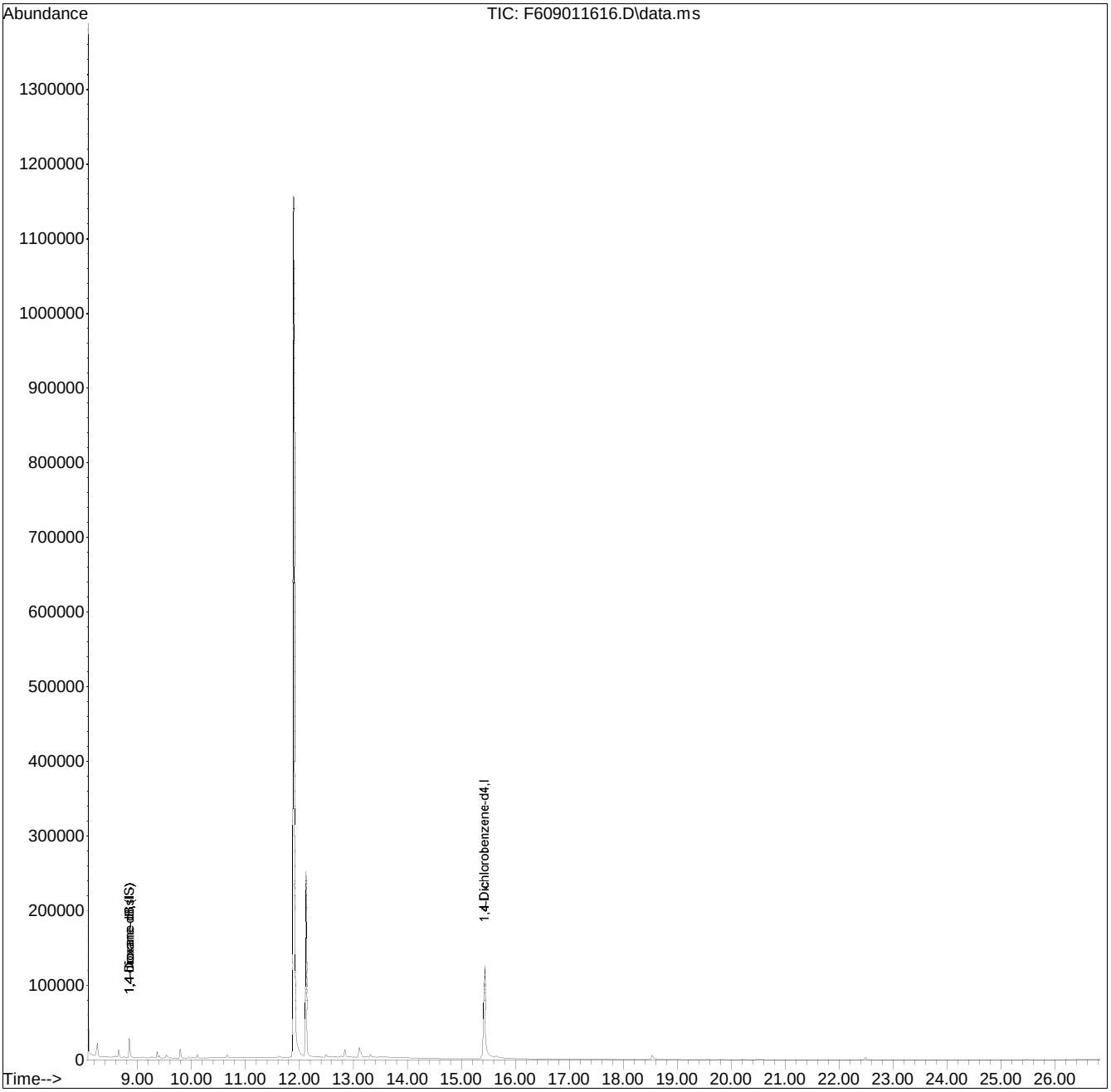
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011616.D
Acq On : 2 Sep 2016 1:39 am
Operator : BNA6:WR
Sample : L1627228-04
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 02 09:18:29 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011617.D
Acq On : 2 Sep 2016 2:23 am
Operator : BNA6:WR
Sample : L1627228-05
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 02 09:19:18 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.849	64	16904	500.000	ng/mL	-0.05
3) 1,4-Dichlorobenzene-d4	15.422	152	204333	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.849	64	16904	95.587	ng/mL	-0.05
Spiked Amount 500.000	Range 15 - 115		Recovery = 19.12%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.935	88	402M4	8.297	ng/mL	

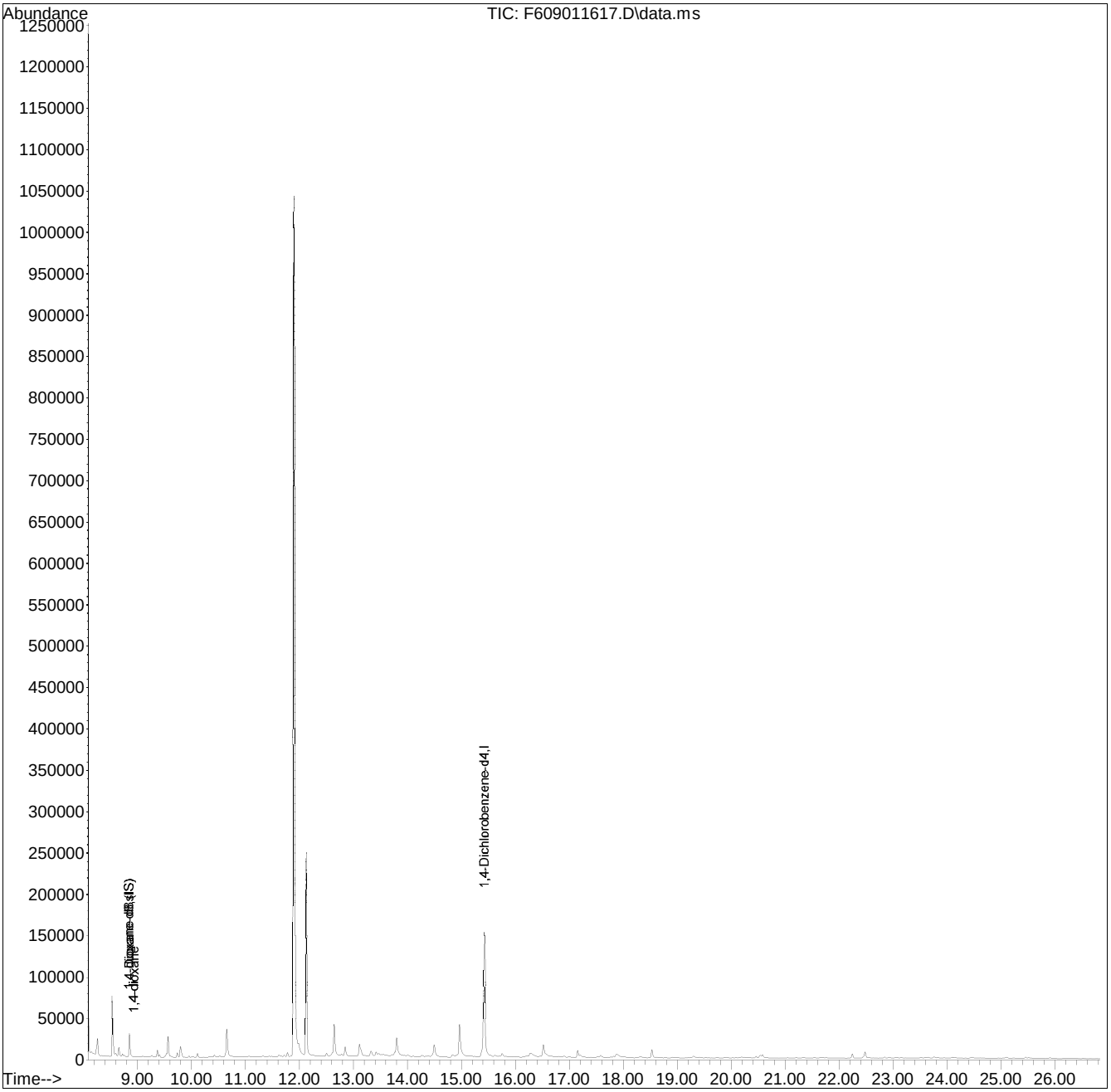
(#) = qualifier out of range (m) = manual integration (+) = signals summed

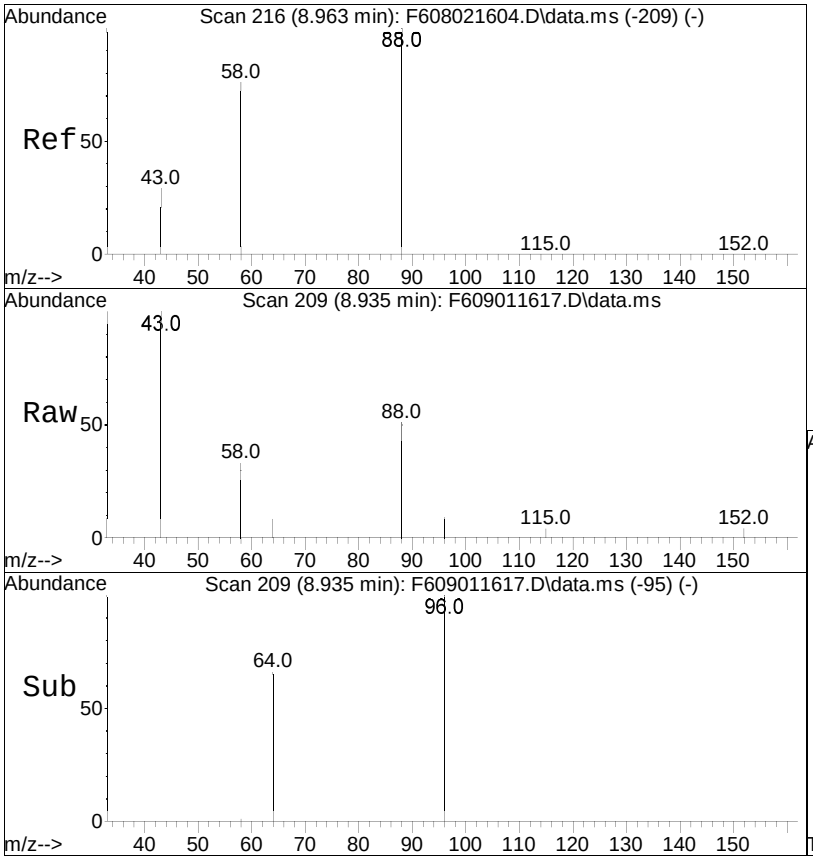
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011617.D
Acq On : 2 Sep 2016 2:23 am
Operator : BNA6:WR
Sample : L1627228-05
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 02 09:19:18 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

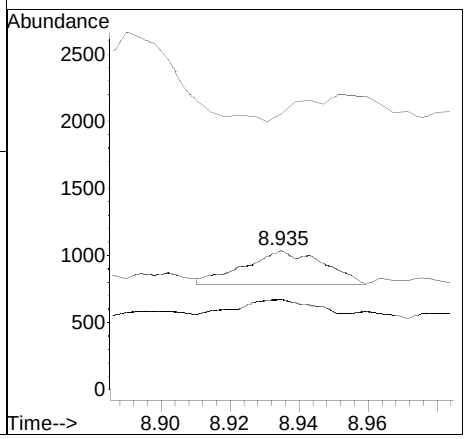




#2
1,4-dioxane
Concen: 8.30 ng/mL M4
RT: 8.935 min Scan# 209
Delta R.T. -0.036 min
Lab File: F609011617.D
Acq: 2 Sep 2016 2:23 am

Tgt Ion: 88 Resp: 402

Ion	Ratio	Lower	Upper
88	100		
58	38.8	62.1	93.1#
43	0.0	24.4	36.6#



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011618.D
Acq On : 2 Sep 2016 3:06 am
Operator : BNA6:WR
Sample : L1627228-06
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 02 09:19:47 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

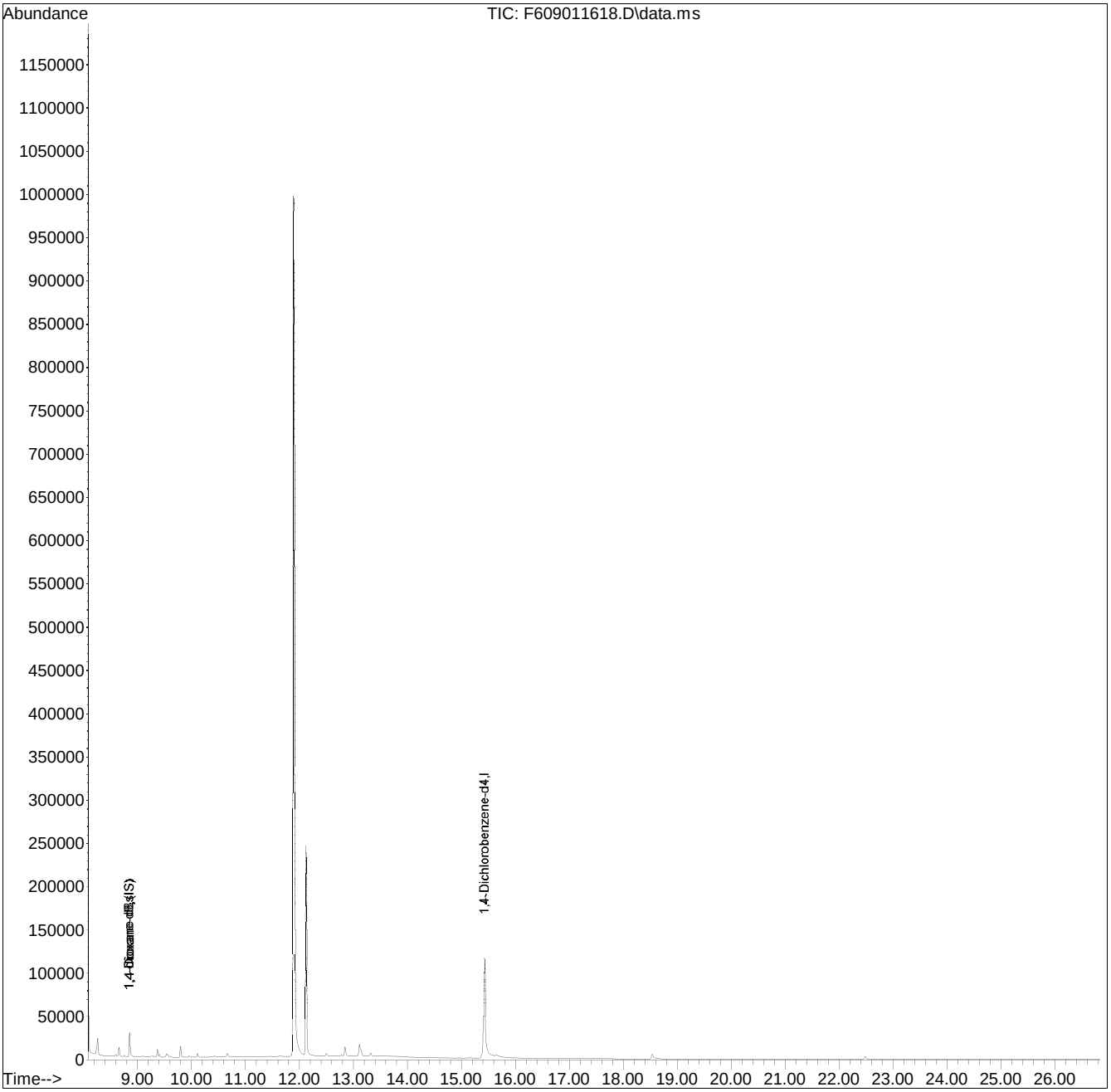
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.849	64	17508	500.000	ng/mL	-0.05
3) 1,4-Dichlorobenzene-d4	15.422	152	182371	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.849	64	17508	110.925	ng/mL	-0.05
Spiked Amount 500.000	Range 15 - 115		Recovery = 22.18%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011618.D
Acq On : 2 Sep 2016 3:06 am
Operator : BNA6:WR
Sample : L1627228-06
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 02 09:19:47 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011619.D
Acq On : 2 Sep 2016 3:50 am
Operator : BNA6:WR
Sample : L1627228-07
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 02 09:20:10 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.853	64	17532	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	186018	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.853	64	17532	108.899	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 21.78%			
Target Compounds						Qvalue
2) 1,4-dioxane	0.000		0	N.D.	d	

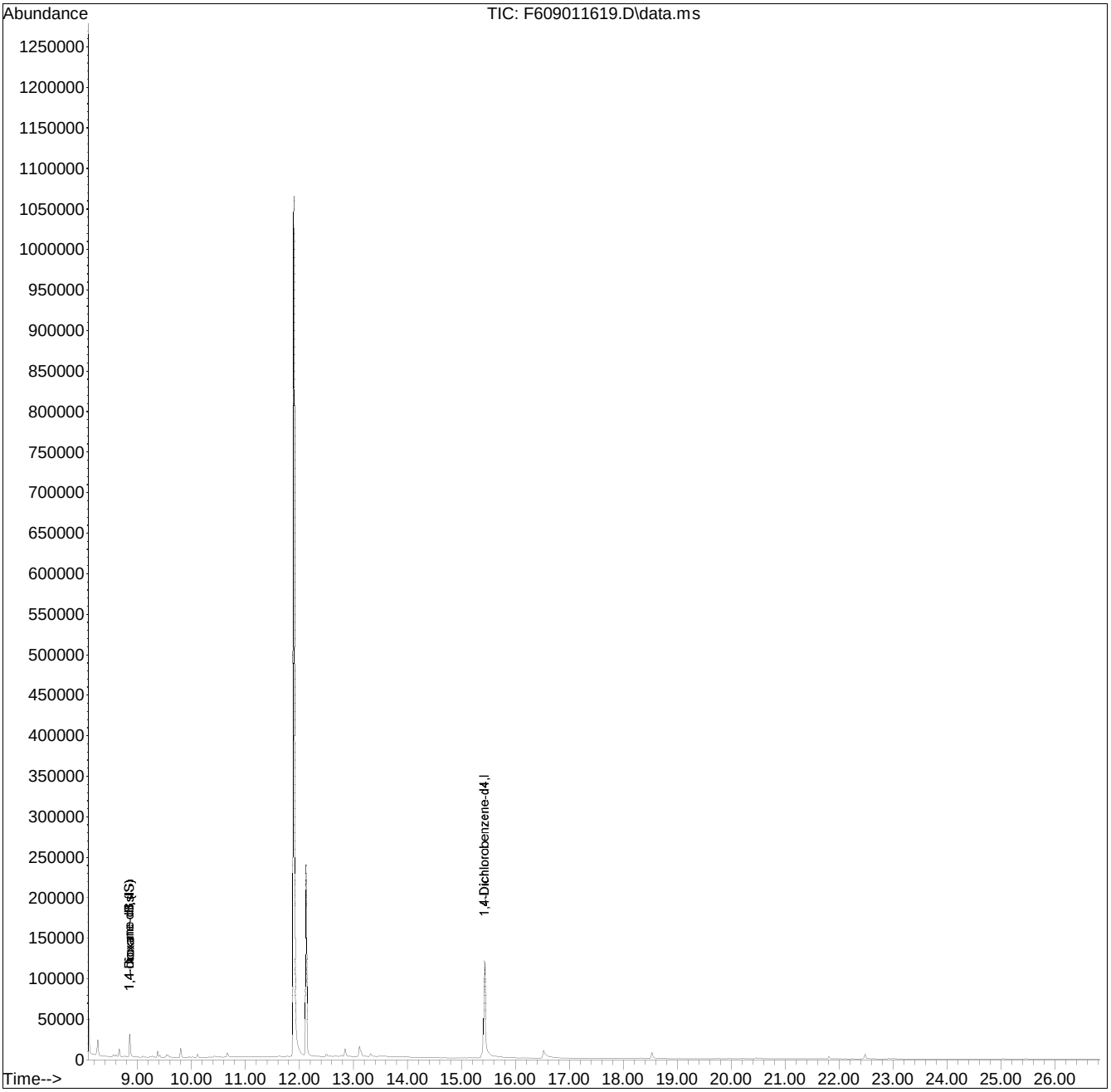
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011619.D
Acq On : 2 Sep 2016 3:50 am
Operator : BNA6:WR
Sample : L1627228-07
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 02 09:20:10 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed



Batch Quality Control

Method Blank
Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011603.D
Acq On : 1 Sep 2016 3:58 pm
Operator : BNA6:WR
Sample : WG928084-1
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 02 08:43:06 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.858	64	20255	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.414	152	200926	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.858	64	20255	116.478	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 23.30%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.943	88	264M4	4.548	ng/mL	

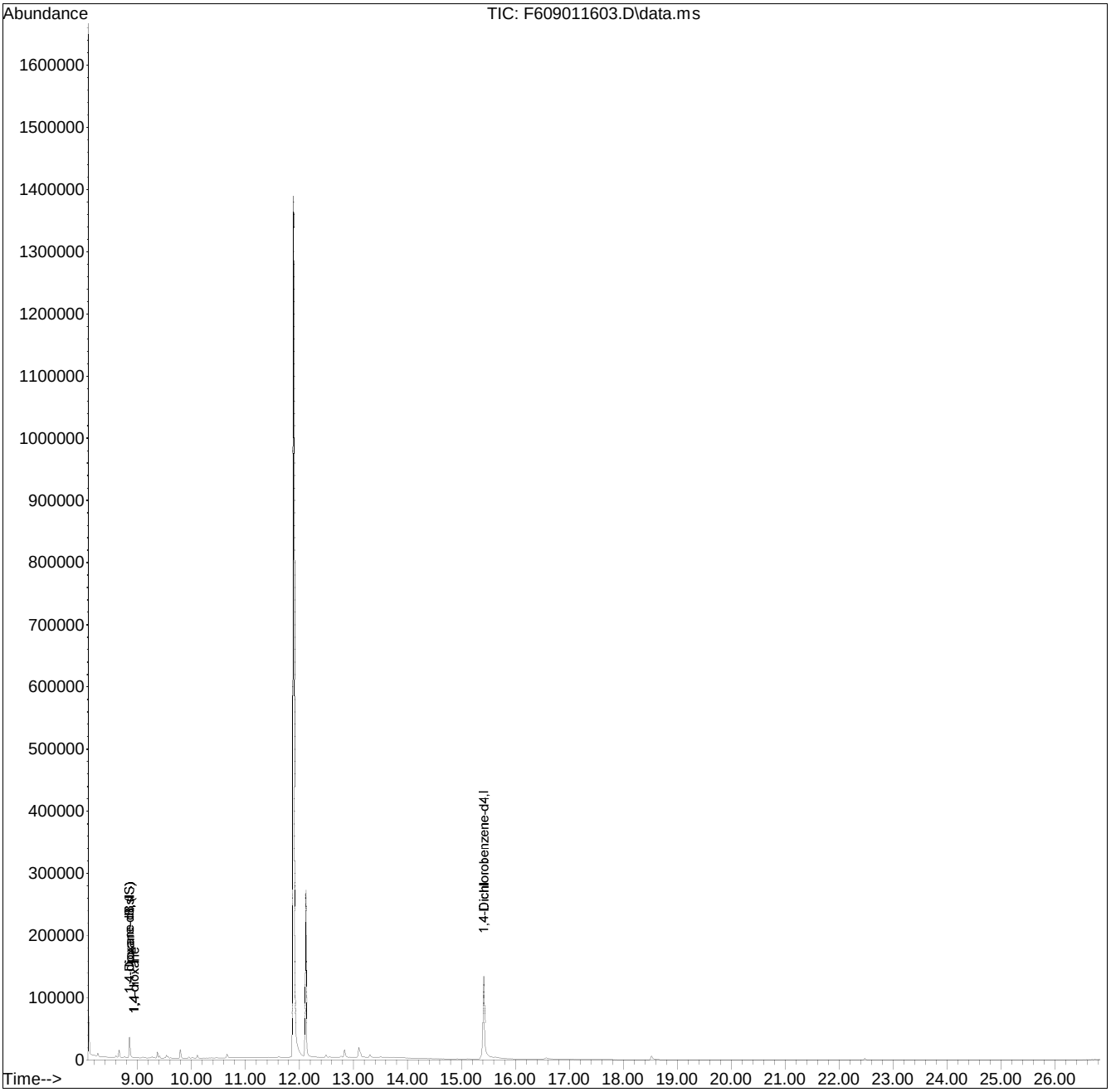
(#) = qualifier out of range (m) = manual integration (+) = signals summed

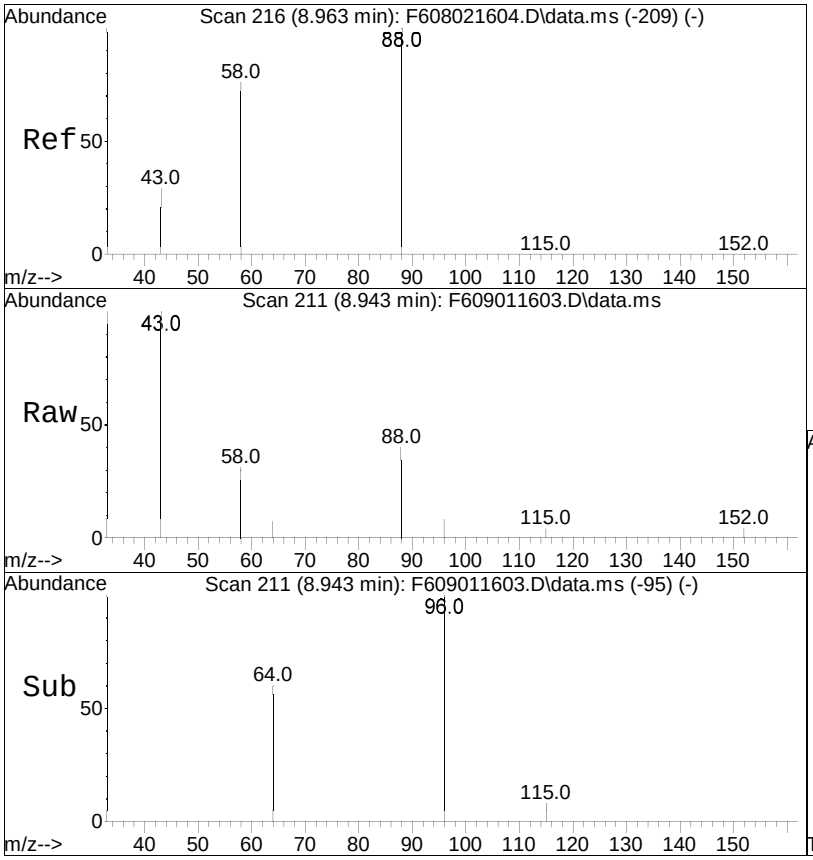
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011603.D
Acq On : 1 Sep 2016 3:58 pm
Operator : BNA6:WR
Sample : WG928084-1
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 02 08:43:06 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

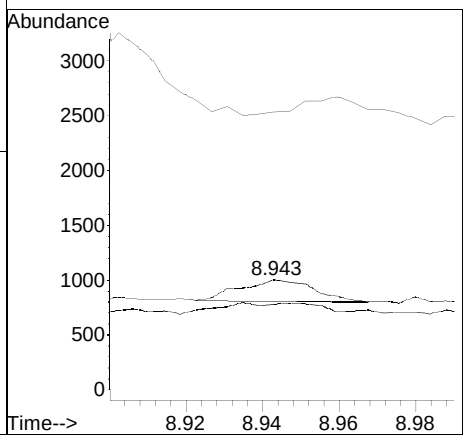




#2
1,4-dioxane
Concen: 4.55 ng/mL M4
RT: 8.943 min Scan# 211
Delta R.T. -0.028 min
Lab File: F609011603.D
Acq: 1 Sep 2016 3:58 pm

Tgt Ion: 88 Resp: 264

Ion	Ratio	Lower	Upper
88	100		
58	25.8	62.1	93.1#
43	0.0	24.4	36.6#



LCS Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011604.D
Acq On : 1 Sep 2016 4:42 pm
Operator : BNA6:WR
Sample : WG928084-2
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 02 08:41:25 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

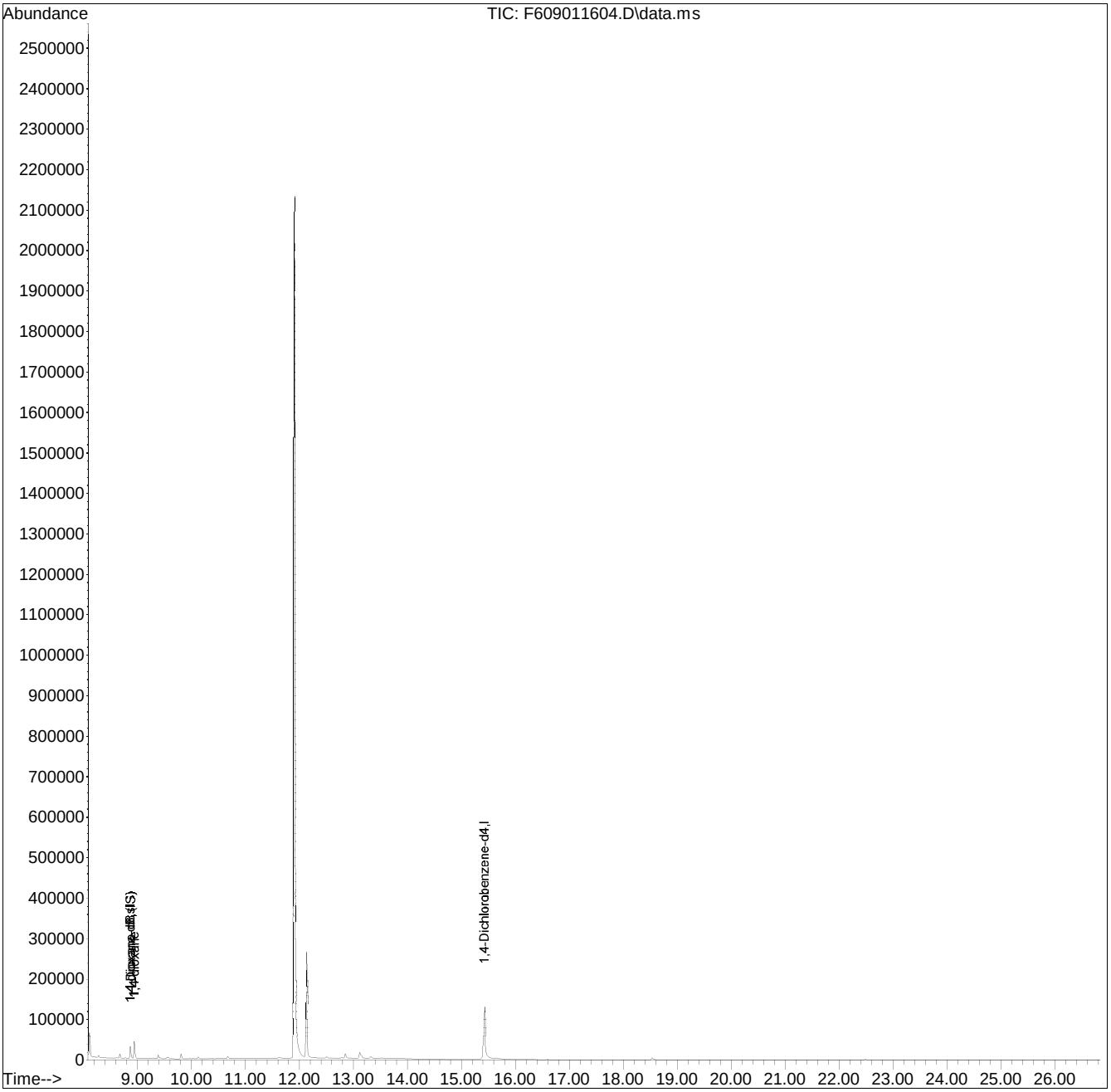
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.874	64	18251	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.422	152	193688	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.874	64	18251	108.876	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 21.78%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.947	88	28835	551.234	ng/mL	98

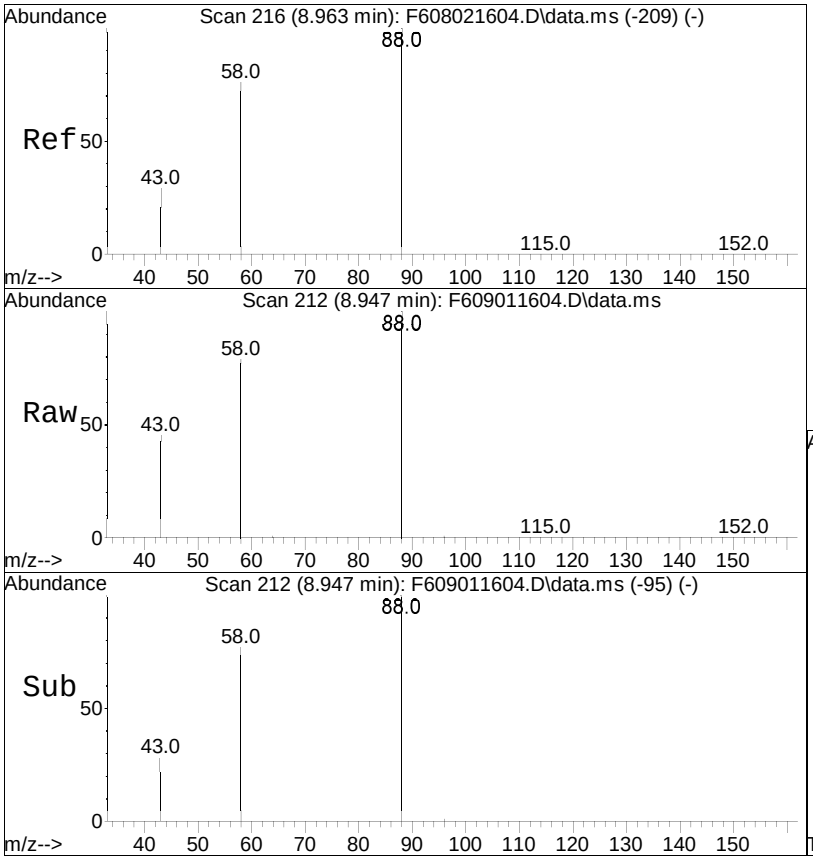
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011604.D
Acq On : 1 Sep 2016 4:42 pm
Operator : BNA6:WR
Sample : WG928084-2
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 02 08:41:25 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

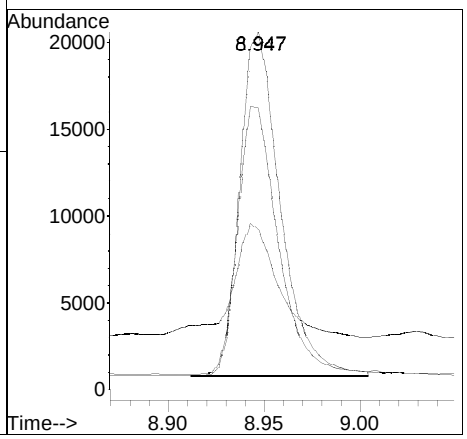




#2
1,4-dioxane
Concen: 551.23 ng/mL
RT: 8.947 min Scan# 212
Delta R.T. -0.024 min
Lab File: F609011604.D
Acq: 1 Sep 2016 4:42 pm

Tgt Ion: 88 Resp: 28835

Ion	Ratio	Lower	Upper
88	100		
58	78.4	62.1	93.1
43	33.5	24.4	36.6



LCS Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011605.D
Acq On : 1 Sep 2016 5:26 pm
Operator : BNA6:WR
Sample : WG928084-3
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 02 08:41:28 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.878	64	19991	500.000	ng/mL	-0.02
3) 1,4-Dichlorobenzene-d4	15.422	152	184793	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.878	64	19991	124.996	ng/mL	-0.02
Spiked Amount 500.000	Range 15 - 115		Recovery = 25.00%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.951	88	31456	548.999	ng/mL	97

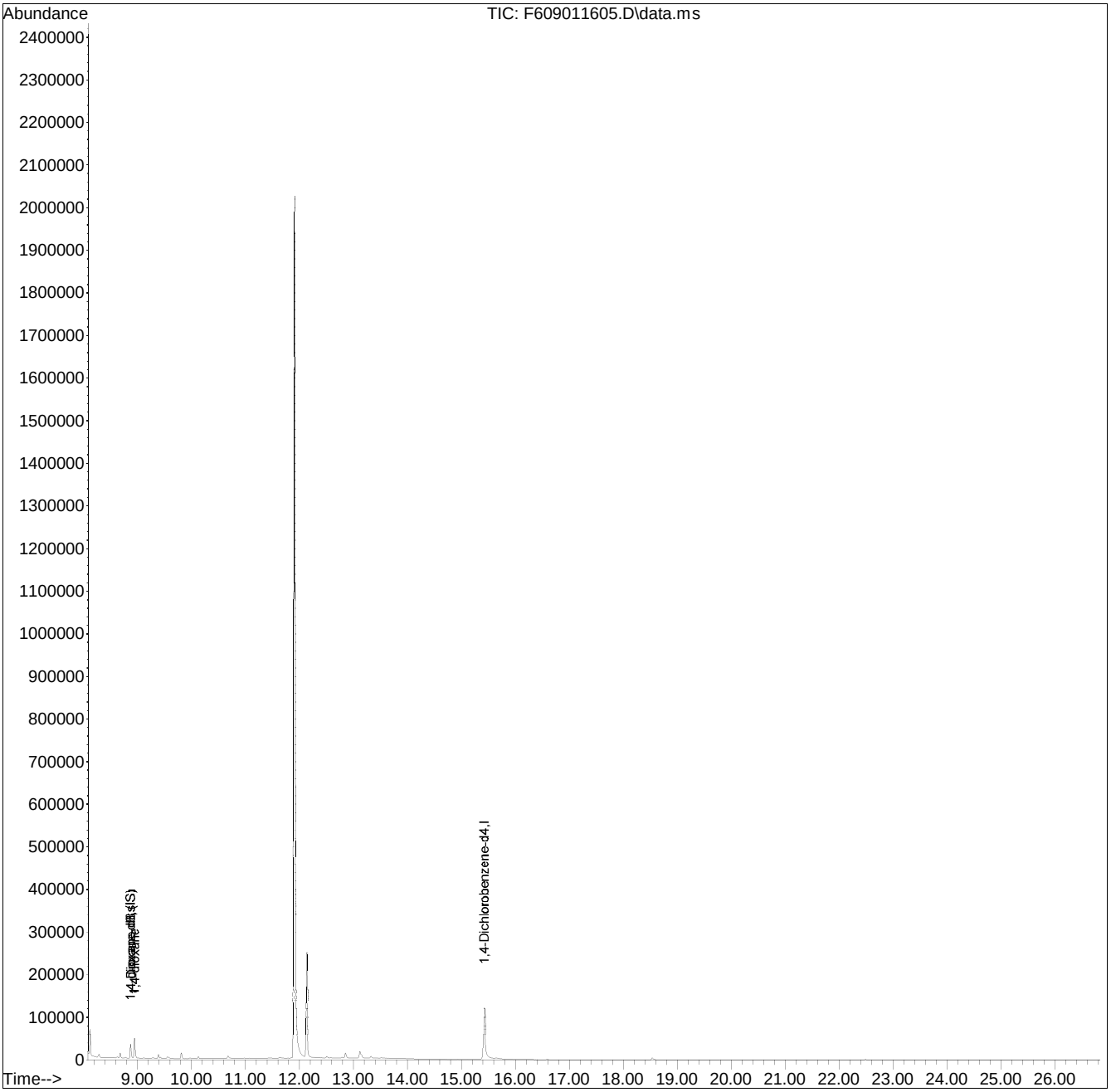
(#) = qualifier out of range (m) = manual integration (+) = signals summed

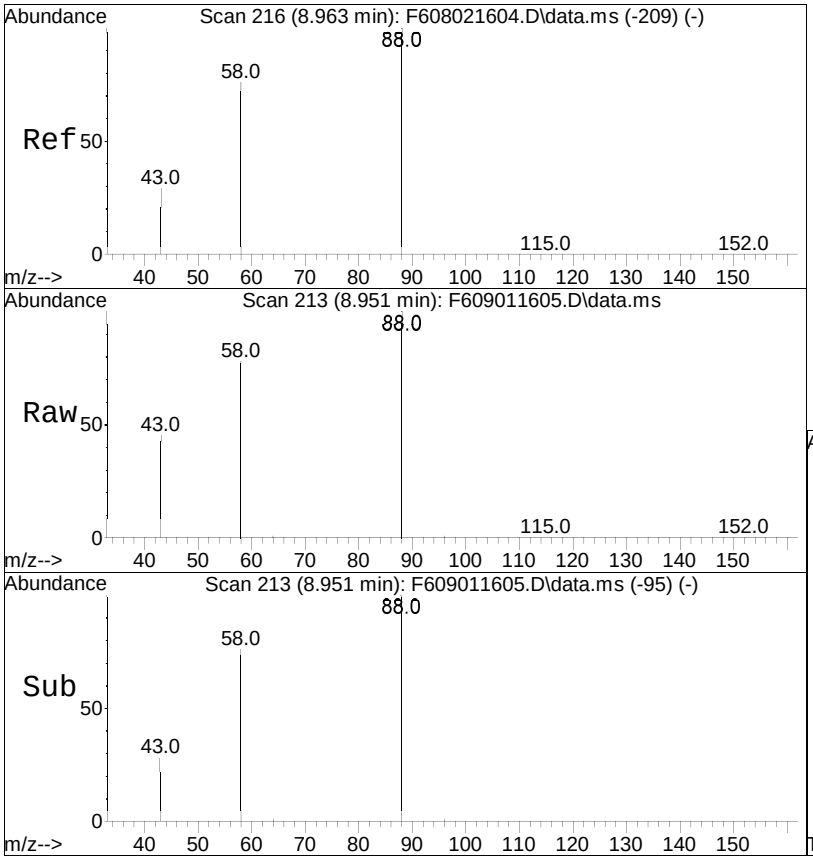
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011605.D
Acq On : 1 Sep 2016 5:26 pm
Operator : BNA6:WR
Sample : WG928084-3
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 02 08:41:28 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

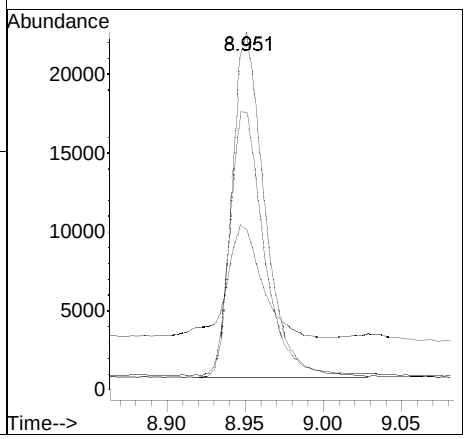




#2
1,4-dioxane
Concen: 549.00 ng/mL
RT: 8.951 min Scan# 213
Delta R.T. -0.020 min
Lab File: F609011605.D
Acq: 1 Sep 2016 5:26 pm

Tgt Ion: 88 Resp: 31456

Ion	Ratio	Lower	Upper
88	100		
58	78.7	62.1	93.1
43	33.7	24.4	36.6



Matrix Spike / Matrix Spike Duplicate Raw Data

Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011614.D
Acq On : 2 Sep 2016 12:12 am
Operator : BNA6:WR
Sample : WG928084-4
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 02 09:17:21 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.866	64	16319	500.000	ng/mL	-0.03
3) 1,4-Dichlorobenzene-d4	15.422	152	218310	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.866	64	16319	86.371	ng/mL	-0.03
Spiked Amount 500.000	Range 15 - 115		Recovery = 17.27%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.943	88	29563M4	632.059	ng/mL	

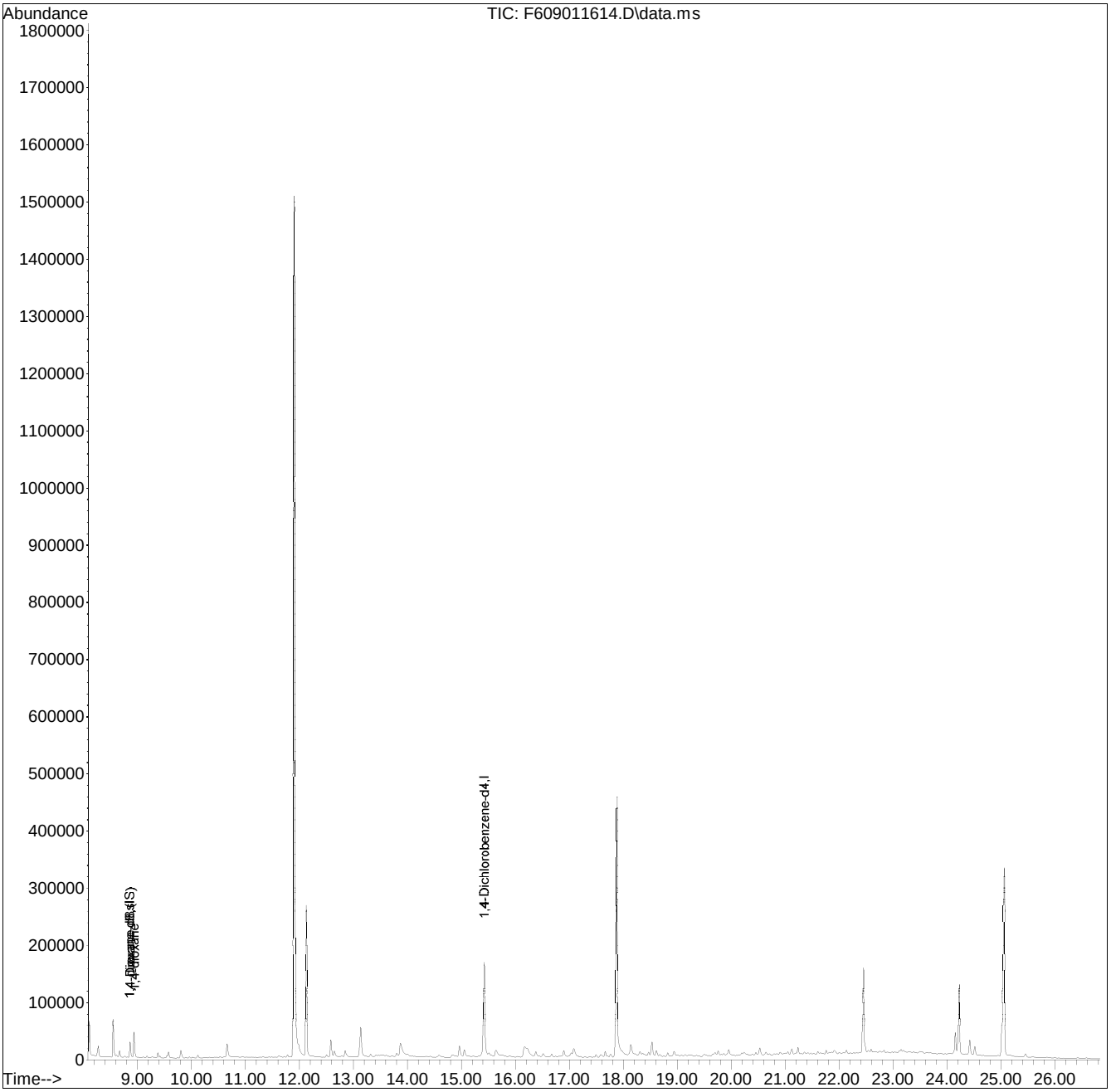
(#) = qualifier out of range (m) = manual integration (+) = signals summed

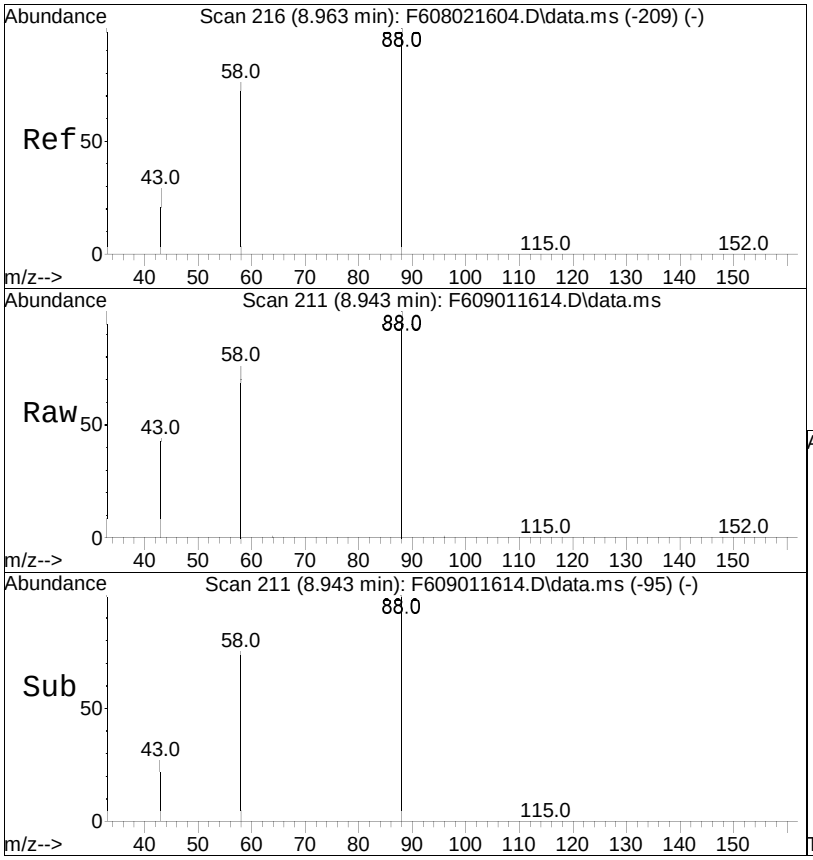
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011614.D
Acq On : 2 Sep 2016 12:12 am
Operator : BNA6:WR
Sample : WG928084-4
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 02 09:17:21 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

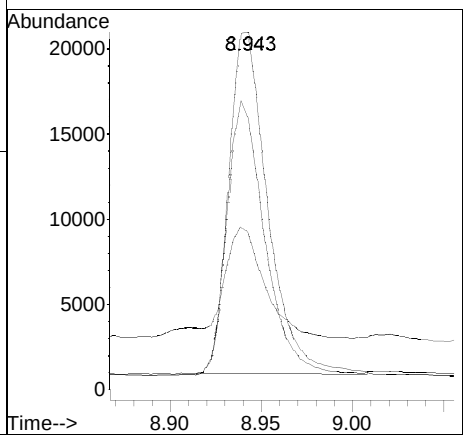




#2
1,4-dioxane
Concen: 632.06 ng/mL M4
RT: 8.943 min Scan# 211
Delta R.T. -0.028 min
Lab File: F609011614.D
Acq: 2 Sep 2016 12:12 am

Tgt Ion: 88 Resp: 29563

Ion	Ratio	Lower	Upper
88	100		
58	78.4	62.1	93.1
43	33.0	24.4	36.6



Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011615.D
Acq On : 2 Sep 2016 12:56 am
Operator : BNA6:WR
Sample : WG928084-5
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 02 09:17:59 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) 1,4-Dioxane-d8 (IS)	8.857	64	14732	500.000	ng/mL	-0.04
3) 1,4-Dichlorobenzene-d4	15.422	152	207194	500.000	ng/mL	-0.09
System Monitoring Compounds						
4) 1,4-dioxane-d8	8.857	64	14732	82.155	ng/mL	-0.04
Spiked Amount 500.000	Range 15 - 115		Recovery = 16.43%			
Target Compounds						Qvalue
2) 1,4-dioxane	8.935	88	25748M4	609.796	ng/mL	

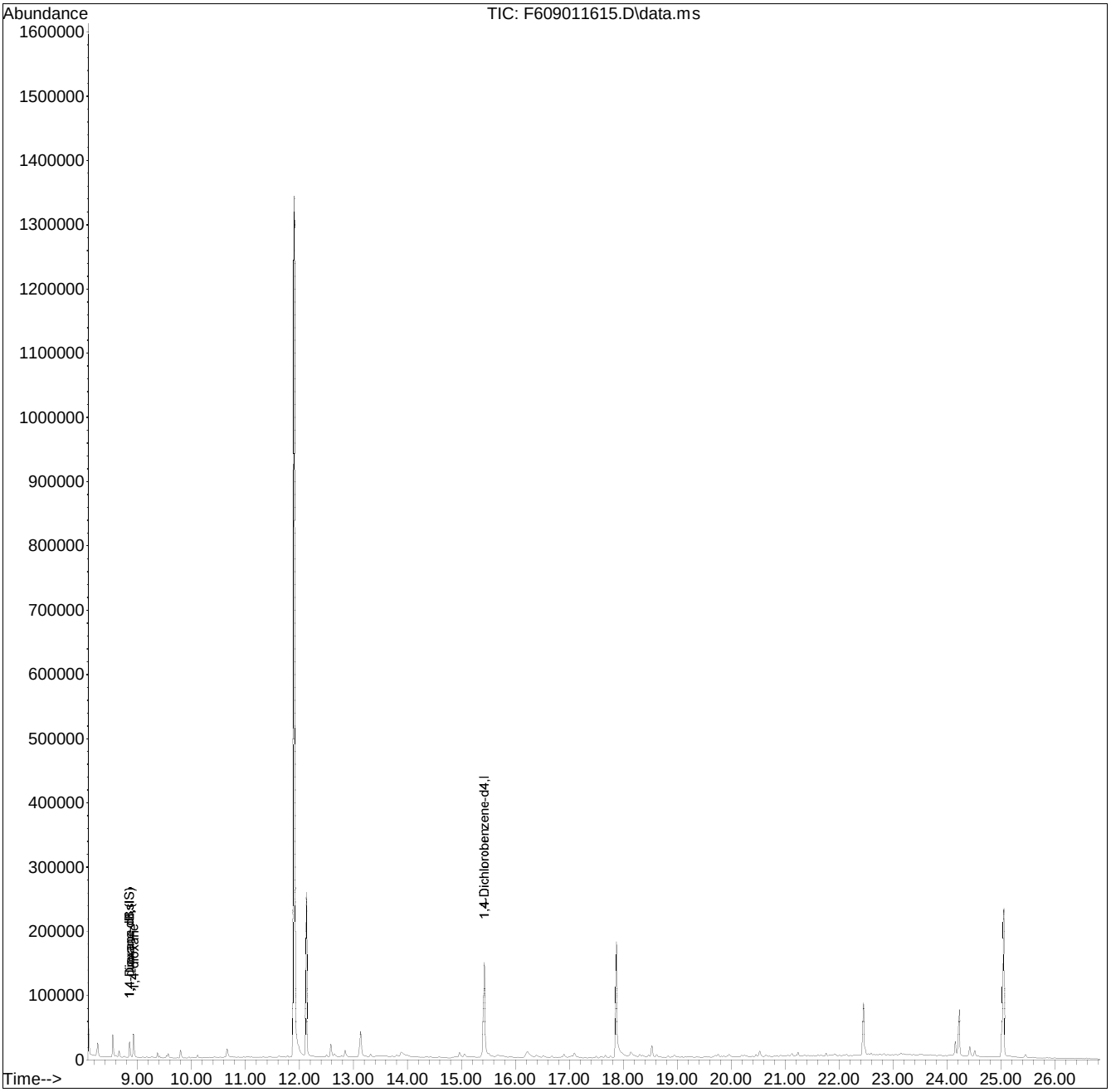
(#) = qualifier out of range (m) = manual integration (+) = signals summed

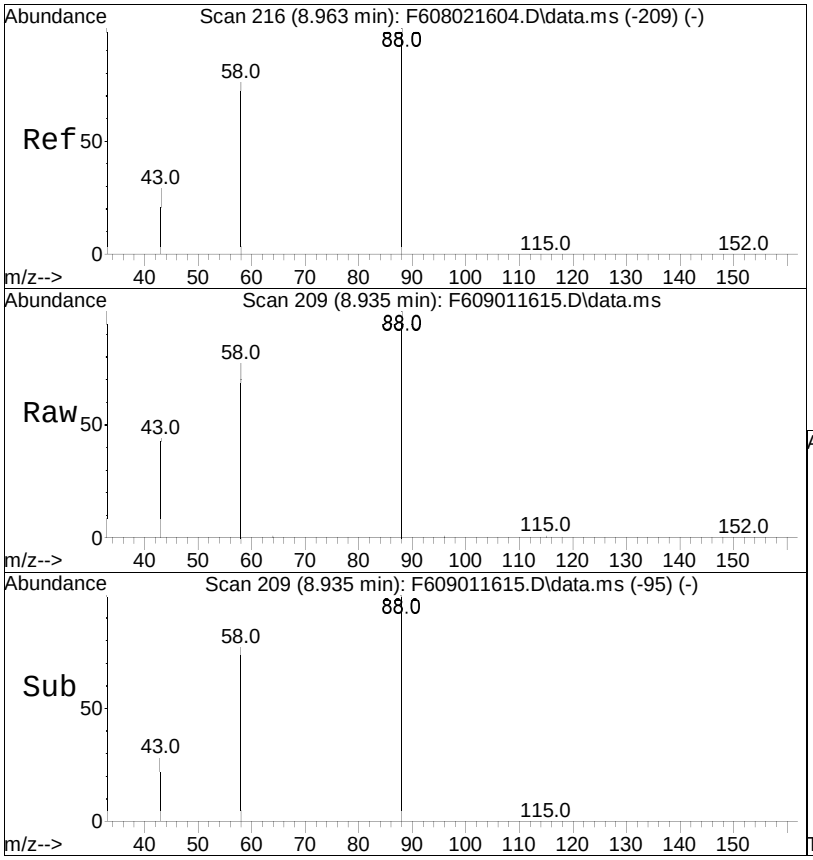
Quantitation Report (QT Reviewed)

Data Path : O:\Organics\DATA\BNA6\2016\Sep\Sep01\
Data File : F609011615.D
Acq On : 2 Sep 2016 12:56 am
Operator : BNA6:WR
Sample : WG928084-5
Misc : WG928229,WG928084,ICAL12751
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 02 09:17:59 2016
Quant Method : O:\Organics\DATA\BNA6\2016\Sep\Sep01\14DIOX0810BNA6.M
Quant Title : Semivolatiles by GC/MS
QLast Update : Thu Aug 11 12:52:56 2016
Response via : Initial Calibration

Sub List : Default - All compounds listed

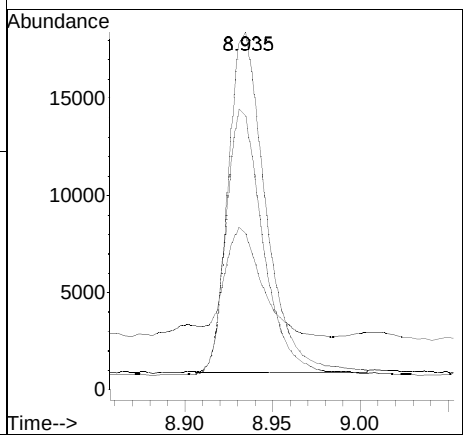




#2
1,4-dioxane
Concen: 609.80 ng/mL M4
RT: 8.935 min Scan# 209
Delta R.T. -0.037 min
Lab File: F609011615.D
Acq: 2 Sep 2016 12:56 am

Tgt Ion: 88 Resp: 25748

Ion	Ratio	Lower	Upper
88	100		
58	77.7	62.1	93.1
43	32.6	24.4	36.6



Sample Preparation

ORGANIC ELN REPORT

Workgroup: WG928084

Prep Method: EPA 3510C
Solvent Type: DCM **Lot #:** DP875
Surrogate Type: 1,4-DIOXANE **Lot #:** MSAK13
Spike Type: 1,4-DIOXANE **Lot #:** MSAK04
Spike Verify by: AL
Lims Spikelot: 14DIOXANE

Additional Reagents/Stds

Glass Wool	11414001
Na2SO4	0000131774

Conc.Method: S-EVAP
Solvent Type: DCM
Lot #: DP875

Additional Reagents/Stds

Cleanup 1

Cleanup Method 1:
Cleanup Method 2:
Solvent Type: **Lot #:**

Additional Reagents/Stds

Sample/ Type	Extraction: Extract Date	Analyst	Sample Vol ml	Ph	Surr Amt ml	Spike Amt ml	Concentration: Conc Date	Analyst	Final Vol ml	Conc Unit
WG928084-1 BLANK	09/01/16 10:30	Alyssa Sass	500	7	.5		09/01/16 13:00	Amanda Luiz	5	SEVAP 5
	QC'S SHARED WITH WG928081 AND WG928082 09/1/16 ABS									
WG928084-2 LCS	09/01/16 10:30	Alyssa Sass	500	7	.5	.5	09/01/16 13:00	Amanda Luiz	5	SEVAP 5
WG928084-3 LCSD	09/01/16 10:30	Alyssa Sass	500	7	.5	.5	09/01/16 13:00	Amanda Luiz	5	SEVAP 5
WG928084-4 MS	09/01/16 10:30	Alyssa Sass	510	8	.5	.5	09/01/16 13:00	Amanda Luiz	5	SEVAP 5
WG928084-5 MSD	09/01/16 10:30	Alyssa Sass	510	8	.5	.5	09/01/16 13:00	Amanda Luiz	5	SEVAP 5
L1626970-09 WATER	09/01/16 11:59	Alyssa Sass	470	7	.5		09/01/16 13:00	Amanda Luiz	5	SEVAP 5
L1626970-10 WATER	09/01/16 11:59	Alyssa Sass	440	7	.5		09/01/16 13:00	Amanda Luiz	5	SEVAP 5

Reported: 20-SEP-16 03:59 PM

ORGANIC ELN REPORT

Workgroup: WG928084

Sample/ Type	Extraction						Concentration			
	Extract Date	Analyst	Sample Vol **ml**	Ph	Surr Amt **ml**	Spike Amt **ml**	Conc Date	Analyst	Final Vol **ml**	Conc Unit
L1627228-01 WATER	09/01/16 10:30	Alyssa Sass	520	8	.5		09/01/16 13:00	Amanda Luiz	5	SEVAP 5
L1627228-02 WATER	09/01/16 10:30	Alyssa Sass	510	8	.5		09/01/16 13:00	Amanda Luiz	5	SEVAP 5
L1627228-03 WATER	09/01/16 10:30	Alyssa Sass	510	8	.5		09/01/16 13:00	Amanda Luiz	5	SEVAP 5
L1627228-04 WATER	09/01/16 10:30	Alyssa Sass	470	8	.5		09/01/16 13:00	Amanda Luiz	5	SEVAP 5
L1627228-05 WATER	09/01/16 10:30	Alyssa Sass	470	11	.5		09/01/16 13:00	Amanda Luiz	5	SEVAP 5
	INITIAL PH OF 11 MADE NEUTRAL TO A PH OF 9 WITH H2SO4 OWA041416A 09/1/16 ABS									
L1627228-06 WATER	09/01/16 10:30	Alyssa Sass	460	8	.5		09/01/16 13:00	Amanda Luiz	5	SEVAP 5
L1627228-07 WATER	09/01/16 10:30	Alyssa Sass	410	8	.5		09/01/16 13:00	Amanda Luiz	5	SEVAP 5
L1627319-01 WATER	09/01/16 10:30	Alyssa Sass	480	8	.5		09/01/16 13:00	Amanda Luiz	5	SEVAP 5
L1627338-01 WATER	09/01/16 10:30	Alyssa Sass	510	8	.5		09/01/16 13:00	Amanda Luiz	5	SEVAP 5

Reported: 20-SEP-16 03:59 PM

Alpha Report

ANALYTICAL REPORT

Lab Number:	L1627228
Client:	Cornerstone Environmental Group, LLC 100 Crystal Run Road Suite 101 Middletown, NY 10941
ATTN:	Tim Roeper
Phone:	(845) 695-0200
Project Name:	FORD-RINGWOOD
Project Number:	140802-015
Report Date:	09/02/16

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1627228
Report Date: 09/02/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1627228-01	FB-05-082916	WATER	RINGWOOD, NJ	08/29/16 07:20	08/30/16
L1627228-02	RW-14S (135-155) -082916	WATER	RINGWOOD, NJ	08/29/16 08:45	08/30/16
L1627228-03	RW-14D (175-185) -082916	WATER	RINGWOOD, NJ	08/29/16 09:40	08/30/16
L1627228-04	RW-10A (51-61) -082916	WATER	RINGWOOD, NJ	08/29/16 12:20	08/30/16
L1627228-05	RW-10S (120-130) -082916	WATER	RINGWOOD, NJ	08/29/16 14:30	08/30/16
L1627228-06	RW-9A (85-95) -083016	WATER	RINGWOOD, NJ	08/30/16 07:20	08/30/16
L1627228-07	RW-9 (206-216) -083016	WATER	RINGWOOD, NJ	08/30/16 09:45	08/30/16

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1627228
Report Date: 09/02/16

NJ DEP Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	YES
1a	Were the method specified handling, preservation, and holding time requirements met?	YES
1b	EPH Method: Was the EPH Method conducted without significant modifications (see Section 11.3 of respective DKQ methods)?	N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	YES
3	Were all samples received at an appropriate temperature (4 ± 2° C)?	YES
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	YES
5a	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	NO
5b	Were these reporting limits met?	N/A
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	NO
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	YES

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1a or #1b is "No", the data package does not meet the requirements for "Data of Known Quality".

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1627228
Report Date: 09/02/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: FORD-RINGWOOD **Lab Number:** L1627228
Project Number: 140802-015 **Report Date:** 09/02/16

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

DKQP Related Narratives

Report Submission

In reference to question 5a/b:

Reporting limits were not specified.

In reference to question 6:

At the client's request, all submitted samples were not analyzed for the full DKQP list of constituents identified in the method specific analyte list presented in the DKQP documents.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth Porta

Title: Technical Director/Representative Date: 09/02/16

ORGANICS

SEMIVOLATILES

Project Name: FORD-RINGWOOD
Lab Number: L1627228
Project Number: 140802-015
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID: L1627228-01
Client ID: FB-05-082916
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 09/01/16 20:23
Analyst: WR

Date Collected: 08/29/16 07:20
Date Received: 08/30/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 09/01/16 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.144	0.0721	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	19		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1627228
Project Number: 140802-015
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID: L1627228-02
Client ID: RW-14S (135-155) -082916
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 09/01/16 22:44
Analyst: WR

Date Collected: 08/29/16 08:45
Date Received: 08/30/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 09/01/16 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.251		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	18		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1627228
Project Number: 140802-015
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID: L1627228-03
Client ID: RW-14D (175-185) -082916
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 09/01/16 23:28
Analyst: WR

Date Collected: 08/29/16 09:40
Date Received: 08/30/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 09/01/16 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.973		ug/l	0.147	0.0735	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	18		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1627228
Project Number: 140802-015
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID: L1627228-04
Client ID: RW-10A (51-61) -082916
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 09/02/16 01:39
Analyst: WR

Date Collected: 08/29/16 12:20
Date Received: 08/30/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 09/01/16 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.160	0.0798	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	19		15-110

Project Name: FORD-RINGWOOD **Lab Number:** L1627228

Project Number: 140802-015 **Report Date:** 09/02/16

SAMPLE RESULTS

Lab ID:	L1627228-05	Date Collected:	08/29/16 14:30
Client ID:	RW-10S (120-130) -082916	Date Received:	08/30/16
Sample Location:	RINGWOOD, NJ	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	09/01/16 10:30
Analytical Date:	09/02/16 02:23		
Analyst:	WR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	0.0883	J	ug/l	0.160	0.0798	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	19		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1627228
Project Number: 140802-015
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID: L1627228-06
Client ID: RW-9A (85-95) -083016
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 09/02/16 03:06
Analyst: WR

Date Collected: 08/30/16 07:20
Date Received: 08/30/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 09/01/16 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.163	0.0815	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	22		15-110

Project Name: FORD-RINGWOOD
Lab Number: L1627228
Project Number: 140802-015
Report Date: 09/02/16

SAMPLE RESULTS

Lab ID: L1627228-07
Client ID: RW-9 (206-216) -083016
Sample Location: RINGWOOD, NJ
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 09/02/16 03:50
Analyst: WR

Date Collected: 08/30/16 09:45
Date Received: 08/30/16
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 09/01/16 10:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.183	0.0915	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	22		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1627228
Report Date: 09/02/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 09/01/16 15:58
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 09/01/16 10:30

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01-07 Batch: WG928084-1					
1,4-Dioxane	ND		ug/l	0.150	0.0750

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	23		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: FORD-RINGWOOD

Project Number: 140802-015

Lab Number: L1627228

Report Date: 09/02/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab	Associated sample(s): 01-07		Batch: WG928084-2		WG928084-3			
1,4-Dioxane	110		110		40-140	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	22		25		15-110

Matrix Spike Analysis
Batch Quality Control

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1627228
Report Date: 09/02/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab (175-185) -082916	Associated sample(s): 01-07		QC Batch ID: WG928084-4			WG928084-5		QC Sample: L1627228-03		Client ID: RW-14D		
1,4-Dioxane	0.973	4.9	6.20	107		5.98	102		40-140	4		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
1,4-Dioxane-d8	17		16		15-110

Project Name: FORD-RINGWOOD
Project Number: 140802-015

Lab Number: L1627228
Report Date: 09/02/16

Sample Receipt and Container Information

Were project specific reporting limits specified? NO

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1627228-01A	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-01B	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-02A	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-02B	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-03A	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-03A1	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-03A2	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-03B	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-03B1	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-03B2	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-04A	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-04B	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-05A	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-05B	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-06A	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-06B	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-07A	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)
L1627228-07B	Amber 500ml unpreserved	A	7	2.9	Y	Absent	A2-14-DIOXANESIM-PPB(7)

*Values in parentheses indicate holding time in days

Project Name:	FORD-RINGWOOD	**Lab Number:**	L1627228
Project Number:	140802-015	**Report Date:**	09/02/16

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORD-RINGWOOD	**Lab Number:**	L1627228
Project Number:	140802-015	**Report Date:**	09/02/16

Data Qualifiers

reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	FORD-RINGWOOD	**Lab Number:**	L1627228
Project Number:	140802-015	**Report Date:**	09/02/16

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: NPW and SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
EPA 9012B: NPW: Total Cyanide
EPA 9050A: NPW: Specific Conductance
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
SM 2540D: TSS
EPA 3005A NPW
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: ***EPA 3050B***

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

Mansfield Facility:

Drinking Water
EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1** Hg.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

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Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page of

Date Rec'd in Lab: 8/31/16

ALPHA Job #: L1627228 ~~L1627238~~

Client Information
Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 845-695-0200
Fax:
Email:

Project Information
Project Name: FORD - Ringwood
Project Location: RINGWOOD NJ
Project #: 140802-015
(Use Project name as Project #) ☐ 140802-015
Project Manager: Tim Reeper
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information
☐ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	As 1,4 Dioxane SIM PPB	Total Bottle	Sample Specific Comments
~~27238~~ .01	FB-05-082916	8/29/16	0720	BW	JK	X		
27228 .02	RW-14S (135-155)-082916	8/29/16	0845	GW	JK	X		
.03	RW-14D (175-185)-082916	8/29/16	0940	GW	JK	X		
.03	RW-14D (175-185)-082916-MS	8/29/16	0940	GW	JK	X		
.03	RW-14D (175-185)-082916-MSD	8/29/16	0940	GW	JK	X		
.04	RW-10A (51-61)-082916	8/29/16	1220	GW	JK	X		
.05	RW-10S (120-130)-082916	8/29/16	1430	GW	JK	X		
.06	RW-9A (85-95)-083016	8/30/16	0720	GW	JK	X		
.07	RW-9 (206-216)-083016	8/30/16	0945	GW	JK	X		

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Daniel Colbert	8/30/16 1530	BB Baker/AL	8-30-16 1530
BB Baker	8-30-16 1800	Tom Tobin	8-30-16 1800
Tom Tobin	8-30-16 2330	[illegible]	8/30/16 2330
[illegible]	8/31/16 0230	Al Williams	8-31-16 0230
Al Williams	8-31-16 0315	[illegible]	8/31/16 0315

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

Alpha
Summary Forms

Organic Summary Forms

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1627228-01	**Date Collected**	: 08/29/16 07:20
Client ID	: FB-05-082916	**Date Received**	: 08/30/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 09/01/16 20:23
Sample Matrix	: WATER	**Date Extracted**	: 09/01/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F609011609	**Analyst**	: WR
Sample Amount	: 520 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.144	0.0721	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1627228-02	**Date Collected**	: 08/29/16 08:45
Client ID	: RW-14S (135-155) -082916	**Date Received**	: 08/30/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 09/01/16 22:44
Sample Matrix	: WATER	**Date Extracted**	: 09/01/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F609011612	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.251	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1627228-03	**Date Collected**	: 08/29/16 09:40
Client ID	: RW-14D (175-185) -082916	**Date Received**	: 08/30/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 09/01/16 23:28
Sample Matrix	: WATER	**Date Extracted**	: 09/01/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F609011613	**Analyst**	: WR
Sample Amount	: 510 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.973	0.147	0.0735	

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1627228-04	**Date Collected**	: 08/29/16 12:20
Client ID	: RW-10A (51-61) -082916	**Date Received**	: 08/30/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 09/02/16 01:39
Sample Matrix	: WATER	**Date Extracted**	: 09/01/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F609011616	**Analyst**	: WR
Sample Amount	: 470 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.160	0.0798	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1627228-05	**Date Collected**	: 08/29/16 14:30
Client ID	: RW-10S (120-130) -082916	**Date Received**	: 08/30/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 09/02/16 02:23
Sample Matrix	: WATER	**Date Extracted**	: 09/01/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F609011617	**Analyst**	: WR
Sample Amount	: 470 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	0.0883	0.160	0.0798	J

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1627228-06	**Date Collected**	: 08/30/16 07:20
Client ID	: RW-9A (85-95) -083016	**Date Received**	: 08/30/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 09/02/16 03:06
Sample Matrix	: WATER	**Date Extracted**	: 09/01/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F609011618	**Analyst**	: WR
Sample Amount	: 460 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.163	0.0815	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: L1627228-07	**Date Collected**	: 08/30/16 09:45
Client ID	: RW-9 (206-216) -083016	**Date Received**	: 08/30/16
Sample Location	: RINGWOOD, NJ	**Date Analyzed**	: 09/02/16 03:50
Sample Matrix	: WATER	**Date Extracted**	: 09/01/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F609011619	**Analyst**	: WR
Sample Amount	: 410 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.183	0.0915	U

Form 1
SemiVolatile Organics

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab ID	: WG928084-1	**Date Collected**	: NA
Client ID	: WG928084-1BLANK	**Date Received**	: NA
Sample Location	:	**Date Analyzed**	: 09/01/16 15:58
Sample Matrix	: WATER	**Date Extracted**	: 09/01/16
Analytical Method	: 1,8270D-SIM	**Dilution Factor**	: 1
Lab File ID	: F609011603	**Analyst**	: WR
Sample Amount	: 500 ml	**Instrument ID**	: BNA6
Extraction Method	: EPA 3510C	**GC Column**	: RTX-5
Extract Volume	: 5000 uL	**%Solids**	: N/A
GPC Cleanup	: N	**Injection Volume**	: 1 uL

		ug/L			
CAS NO.	**Parameter**	**Results**	**RL**	**MDL**	**Qualifier**
123-91-1	1,4-Dioxane	ND	0.150	0.0750	U

Form 2
Surrogate Recovery
SEMIVOLATILES

Client: Cornerstone Environmental Group, LLC
Project Name: FORD-RINGWOOD

Lab Number: L1627228
Project Number: 140802-015
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 ()	S2 ()	S3 ()	S4 ()	S5 ()	S6 ()	TOT OUT
FB-05-082916 (L1627228-01)	19	--	--	--	--	--	0
WG928084-3LCSD	25	--	--	--	--	--	0
WG928084-2LCS	22	--	--	--	--	--	0
WG928084-1BLANK	23	--	--	--	--	--	0
RW-14D (175-185) -082916	17	--	--	--	--	--	0
RW-14D (175-185) -082916	16	--	--	--	--	--	0
RW-10A (51-61) -082916 (L1627228-04)	19	--	--	--	--	--	0
RW-10S (120-130) -082916 (L1627228-05)	19	--	--	--	--	--	0
RW-14D (175-185) -082916 (L1627228-03)	18	--	--	--	--	--	0
RW-14S (135-155) -082916 (L1627228-02)	18	--	--	--	--	--	0
RW-9 (206-216) -083016 (L1627228-07)	22	--	--	--	--	--	0
RW-9A (85-95) -083016 (L1627228-06)	22	--	--	--	--	--	0

	QC LIMITS
S1 = 1,4-DIOXANE-D8	(15-110)

*** Values outside of QC limits**

FORM II A2-14-DIOXANESIM-PPB

Laboratory Control Sample
Form 3

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Matrix	: WATER		
LCS Sample ID	: WG928084-2	**Analysis Date :** 09/01/16 16:42	**File ID** : F609011604
LCSD Sample ID	: WG928084-3	**Analysis Date :** 09/01/16 17:26	**File ID** : F609011605

	Laboratory Control Sample			Laboratory Control Duplicate					
Parameter	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R	RPD	Recovery Limits	RPD Limit
1,4-Dioxane	5	5.51	110	5	5.49	110	0	40-140	30

Matrix Spike
Form 3

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Client Sample ID	: RW-14D (175-185) -082916	**Matrix**	: WATER
Lab Sample ID	: L1627228-03	**Analysis Date**	: 09/01/16 23:28
Matrix Spike	: WG928084-4	**MS Analysis Date**	: 09/02/16 00:12
Matrix Spike Dup	: WG928084-5	**MSD Analysis Date**	: 09/02/16 00:56

		Matrix Spike Sample			Matrix Spike Duplicate					
Parameter	Sample Conc. (ug/l)	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R	RPD	Recovery Limits	RPD Limit
1,4-Dioxane	0.973	4.9	6.20	107	4.9	5.98	102	4	40-140	30

Method Blank Summary
Form 4

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Lab Sample ID	: WG928084-1	**Lab File ID**	: F609011603
Instrument ID	: BNA6	**Extraction Date**	: 09/01/16
Matrix	: WATER	**Analysis Date**	: 09/01/16 15:58
Level	: LOW		

Client Sample No.	Lab Sample ID	Analysis Date
WG928084-2LCS	WG928084-2	09/01/16 16:42
WG928084-3LCSD	WG928084-3	09/01/16 17:26
FB-05-082916	L1627228-01	09/01/16 20:23
RW-14S (135-155) -082916	L1627228-02	09/01/16 22:44
RW-14D (175-185) -082916	L1627228-03	09/01/16 23:28
RW-14D (175-185) -082916MS	WG928084-4	09/02/16 00:12
RW-14D (175-185) -082916MSD	WG928084-5	09/02/16 00:56
RW-10A (51-61) -082916	L1627228-04	09/02/16 01:39
RW-10S (120-130) -082916	L1627228-05	09/02/16 02:23
RW-9A (85-95) -083016	L1627228-06	09/02/16 03:06
RW-9 (206-216) -083016	L1627228-07	09/02/16 03:50

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 08/10/16 13:25
Tune Standard	: R891220-9	**Tune File ID**	: F608101603_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	28.1
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	38.3
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.8
275	10.0 - 60.0% of Base Peak	28.4
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than 24% of mass 442	15.6
442	Base Peak, or >50% of mass 198	94.3
443	15.0 - 24.0% of mass 442	18.3 (19.4)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD 10	R891220-2	F608101604	08/10/16 14:22
STD 50	R891220-3	F608101605	08/10/16 15:07
STD 100	R891220-4	F608101606	08/10/16 15:51
STD 500	R891220-5	F608101607	08/10/16 16:36
STD 1000	R891220-1	F608101608	08/10/16 17:21
STD 5000	R891220-6	F608101609	08/10/16 18:06
STD 10000	R891220-7	F608101610	08/10/16 18:51
ICV Quant Report STD 1000	R891220-8	F608101611	08/10/16 19:36

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 09/01/16 11:34
Tune Standard	: WG928229-1	**Tune File ID**	: F609011601_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	27.7
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	37.1
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	7
275	10.0 - 60.0% of Base Peak	28.7
365	Greater than 1.0% of mass 198	2.7
441	Present, but less than 24% of mass 442	15.8
442	Base Peak, or >50% of mass 198	84.7
443	15.0 - 24.0% of mass 442	16.8 (19.8)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG928229-3CCAL	WG928229-3	F609011602	09/01/16 12:30
WG928084-1BLANK	WG928084-1	F609011603	09/01/16 15:58
WG928084-2LCS	WG928084-2	F609011604	09/01/16 16:42
WG928084-3LCSD	WG928084-3	F609011605	09/01/16 17:26
FB-05-082916	L1627228-01	F609011609	09/01/16 20:23

Instrument Performance Check
Decafluorotriphenylphosphine (DFTPP)
Form 5

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 09/01/16 21:04
Tune Standard	: WG928229-4	**Tune File ID**	: F609011610_tune

m/e	Ion Abundance Criteria	%Relative Abundance
51	10.0 - 80.0% of Base Peak	26.9
68	Less than 2.0% of mass 69	0 (0)1
70	Less than 2.0% of mass 69	0.2 (.6)1
127	10.0 - 80.0% of Base Peak	37.5
197	Less than 2.0% of mass 198	0
198	Base Peak, or >50% of mass 442	100
199	5.0 - 9.0% of mass 198	6.7
275	10.0 - 60.0% of Base Peak	28.8
365	Greater than 1.0% of mass 198	2.6
441	Present, but less than 24% of mass 442	15.4
442	Base Peak, or >50% of mass 198	91.6
443	15.0 - 24.0% of mass 442	18 (19.7)2

1-Value is % of mass 69 2-Value is % of mass 442

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG928229-6CCAL	WG928229-6	F609011611	09/01/16 22:00
RW-14S (135-155) -082916	L1627228-02	F609011612	09/01/16 22:44
RW-14D (175-185) -082916	L1627228-03	F609011613	09/01/16 23:28
WG928084-4MS	WG928084-4	F609011614	09/02/16 00:12
WG928084-5MSD	WG928084-5	F609011615	09/02/16 00:56
RW-10A (51-61) -082916	L1627228-04	F609011616	09/02/16 01:39
RW-10S (120-130) -082916	L1627228-05	F609011617	09/02/16 02:23
RW-9A (85-95) -083016	L1627228-06	F609011618	09/02/16 03:06
RW-9 (206-216) -083016	L1627228-07	F609011619	09/02/16 03:50

Initial Calibration Summary
Form 6

Client	**: Cornerstone Environmental Group, LL**	**Lab Number**	**: L1627228**
Project Name	**: FORD-RINGWOOD**	**Project Number**	**: 140802-015**
Instrument ID	**: BNA6**	**Ical Ref**	**: ICAL12751**
Calibration dates	**: 08/10/16 14:22 08/10/16 18:51**		

Calibration Files
10 =F608101604.D 50 =F608101605.D 100 =F608101606.D 500 =F608101607.D 1000=F608101608.D
5000=F608101609.D 1e4 =F608101610.D

		Compound	10	50	100	500	1000	5000	1e4	Avg	%RSD
1)		1,4-Dioxane-d8 (IS)	----------ISTD----------								
2)		1,4-dioxane	1.556	1.402	1.394	1.386	1.470	1.417	1.405	1.433	4.24
3)	I	1,4-Dichlorobenzene-d4	----------ISTD----------								
4)	s	1,4-dioxane-d8	0.428	0.444	0.423	0.441	0.417	0.442	0.435	0.433	2.41

Continuing Calibration
Form 7

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228	
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015	
Instrument ID	: BNA6	**Calibration Date**	: 09/01/16 12:30	
Lab File ID	: F609011602	**Init. Calib. Date(s)**	: 08/10/16	08/10/16
Sample No	: WG928229-3	**Init. Calib. Times**	: 14:22	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	100	-.06
1,4-dioxane	1.433	1.364	-	4.8	20	93	-.06
1,4-Dichlorobenzene-d4	1	1	-	0	20	115	-.09
1,4-dioxane-d8	0.433	0.363	-	16.2	20	99	-.06

* Value outside of QC limits.

Continuing Calibration
Form 7

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228	
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015	
Instrument ID	: BNA6	**Calibration Date**	: 09/01/16 22:00	
Lab File ID	: F609011611	**Init. Calib. Date(s)**	: 08/10/16	08/10/16
Sample No	: WG928229-6	**Init. Calib. Times**	: 14:22	18:51
Channel	:			

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,4-Dioxane-d8 (IS)	1	1	-	0	20	85	-.06
1,4-dioxane	1.433	1.411	-	1.5	20	81	-.06
1,4-Dichlorobenzene-d4	1	1	-	0	20	92	-.09
1,4-dioxane-d8	0.433	0.386	-	10.9	20	83	-.06

* Value outside of QC limits.

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 09/01/16 12:30
Sample No	: WG928229-3	**Lab File ID**	: F609011602

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG928229-3	231402	15.42				
Upper Limit	462804	15.92				
Lower Limit	115701	14.92				
Sample ID						
WG928084-1 BLANK	200926	15.41				
WG928084-2 LCS	193688	15.42				
WG928084-3 LCSD	184793	15.42				
FB-05-082916	174499	15.43				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Internal Standard Area and RT Summary
Form 8

Client	: Cornerstone Environmental Group, LL	**Lab Number**	: L1627228
Project Name	: FORD-RINGWOOD	**Project Number**	: 140802-015
Instrument ID	: BNA6	**Analysis Date**	: 09/01/16 22:00
Sample No	: WG928229-6	**Lab File ID**	: F609011611

	1,4-Dichlorobenzene-d4					
	Area	RT	Area	RT	Area	RT
WG928229-6	183756	15.42				
Upper Limit	367512	15.92				
Lower Limit	91878	14.92				
Sample ID						
RW-14S (135-155) -082916	207953	15.42				
RW-14D (175-185) -082916	210372	15.42				
RW-14D (175-185) -082916 MS	218310	15.42				
RW-14D (175-185) -082916 MSD	207194	15.42				
RW-10A (51-61) -082916	191965	15.42				
RW-10S (120-130) -082916	204333	15.42				
RW-9A (85-95) -083016	182371	15.42				
RW-9 (206-216) -083016	186018	15.42				

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

September 23, 2016

Tim Roeper
Cornerstone Environmental Group
100 Crystal Run Rd
Suite 101
Middletown, NY 10941

RE: **Ford Ringwood 140802-015**
Pace Workorder: 20025

Dear Tim Roeper:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday, August 24, 2016. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 09/23/2016
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages 44

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 20025 Ford Ringwood 140802-015

Lab ID	Sample ID	Matrix	Date Collected	Date Received
200250001	RW-11D (262-267)-082316	Water	8/23/2016 09:05	8/24/2016 10:30
200250002	PMP-AS-180-082316	Water	8/23/2016 10:25	8/24/2016 10:30
200250003	PMP-AS-230-082316	Water	8/23/2016 13:25	8/24/2016 10:30
200250004	R-3DD(175-180)-082316	Water	8/23/2016 13:25	8/24/2016 10:30

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 20025 Ford Ringwood 140802-015

Lab ID: **200250001** Date Received: 8/24/2016 10:30 Matrix: Water

Sample ID: **RW-11D (262-267)-082316** Date Collected: 8/23/2016 09:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
Compound Specific Isotopic - PAES								
Analysis Desc: AM24		Analytical Method: AM24						
1,4 Dioxane	**Complete**				1	9/13/2016 00:00	JT	n
Subcontracted Work - SCPF								s
Analysis Desc: EPA 522		Analytical Method: EPA 522						
1,4 Dioxane	**Complete**				1	8/27/2016 00:00	PAS	
Subcontracted Work - SCPG								G
Analysis Desc: SW-846 8260B		Analytical Method: SW-846 8260B						
Volatiles	**Complete**				1	8/29/2016 00:00	PAS	s

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ANALYTICAL RESULTS

Workorder: 20025 Ford Ringwood 140802-015

Lab ID: **200250002** Date Received: 8/24/2016 10:30 Matrix: Water

Sample ID: **PMP-AS-180-082316** Date Collected: 8/23/2016 10:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
Compound Specific Isotopic - PAES								
Analysis Desc: AM24		Analytical Method: AM24						
1,4 Dioxane	**Complete**				1	9/13/2016 00:00	JT	n
Subcontracted Work - SCPF								s
Analysis Desc: EPA 522		Analytical Method: EPA 522						
1,4 Dioxane	**Complete**				1	8/27/2016 00:00	PAS	
Subcontracted Work - SCPG								G
Analysis Desc: SW-846 8260B		Analytical Method: SW-846 8260B						
Volatiles	**Complete**				1	8/29/2016 00:00	PAS	s

Pace Analytical Energy Services LLC
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ANALYTICAL RESULTS

Workorder: 20025 Ford Ringwood 140802-015

Lab ID: **200250003** Date Received: 8/24/2016 10:30 Matrix: Water

Sample ID: **PMP-AS-230-082316** Date Collected: 8/23/2016 13:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
Compound Specific Isotopic - PAES								
Analysis Desc: AM24		Analytical Method: AM24						
1,4 Dioxane	**Complete**				1	9/13/2016 00:00	JT	n
Subcontracted Work - SCPF								s
Analysis Desc: EPA 522		Analytical Method: EPA 522						
1,4 Dioxane	**Complete**				1	8/27/2016 00:00	PAS	
Subcontracted Work - SCPG								G
Analysis Desc: SW-846 8260B		Analytical Method: SW-846 8260B						
Volatiles	**Complete**				1	8/29/2016 00:00	PAS	s

Pace Analytical Energy Services LLC
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ANALYTICAL RESULTS

Workorder: 20025 Ford Ringwood 140802-015

Lab ID: **200250004** Date Received: 8/24/2016 10:30 Matrix: Water

Sample ID: **R-3DD(175-180)-082316** Date Collected: 8/23/2016 13:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
Compound Specific Isotopic - PAES								
Analysis Desc: AM24		Analytical Method: AM24						
1,4 Dioxane	**Complete**				1	9/13/2016 00:00	JT	n
Subcontracted Work - SCPF								s
Analysis Desc: EPA 522		Analytical Method: EPA 522						
1,4 Dioxane	**Complete**				1	8/27/2016 00:00	PAS	
Subcontracted Work - SCPG								G
Analysis Desc: SW-846 8260B		Analytical Method: SW-846 8260B						
Volatiles	**Complete**				1	8/29/2016 00:00	PAS	s

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
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ANALYTICAL RESULTS QUALIFIERS

Workorder: 20025 Ford Ringwood 140802-015

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
s	Subcontracted to Pace Florida under NELAC Certification Number - PA68-00547
G	Subcontracted to Pace Greensburg under NELAC Certification Number - PA65-00282
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.
s	Subcontracted; for any related quality nonconformance see additional report(s)

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 20025 Ford Ringwood 140802-015

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
200250001	RW-11D (262-267)-082316			SW-846 8260B	SCPG/3006
	Subcontracted to Pace Greensburg under NELAC Certification Number - PA65-00282				
200250002	PMP-AS-180-082316			SW-846 8260B	SCPG/3006
	Subcontracted to Pace Greensburg under NELAC Certification Number - PA65-00282				
200250003	PMP-AS-230-082316			SW-846 8260B	SCPG/3006
	Subcontracted to Pace Greensburg under NELAC Certification Number - PA65-00282				
200250004	R-3DD(175-180)-082316			SW-846 8260B	SCPG/3006
	Subcontracted to Pace Greensburg under NELAC Certification Number - PA65-00282				
200250001	RW-11D (262-267)-082316			EPA 522	SCPF/1010
	Subcontracted to Pace Florida under NELAC Certification Number - PA68-00547				
200250002	PMP-AS-180-082316			EPA 522	SCPF/1010
	Subcontracted to Pace Florida under NELAC Certification Number - PA68-00547				
200250003	PMP-AS-230-082316			EPA 522	SCPF/1010
	Subcontracted to Pace Florida under NELAC Certification Number - PA68-00547				
200250004	R-3DD(175-180)-082316			EPA 522	SCPF/1010
	Subcontracted to Pace Florida under NELAC Certification Number - PA68-00547				
200250001	RW-11D (262-267)-082316			AM24	CSIA/1464
200250002	PMP-AS-180-082316			AM24	CSIA/1464
200250003	PMP-AS-230-082316			AM24	CSIA/1464
200250004	R-3DD(175-180)-082316			AM24	CSIA/1464

Client	Cornerstone Emvironmental	Pace CSIA Center of Excellence
	100 Crystal Run Rd Suite 101	220 William Pitt Way
	Middletown, NY 10944	Pittsburgh, PA 15238
Project	Ford Ringwood	Tel: 412.826.5245
Project #	140802-015	Report by: Dr. Yi Wang
Report to	Tim Roeper	Director, CSIA Center of Excellence
Tel:	945.695.0200	Cell: 609.721.2843
Email:	tim.roeper @ cornerstoneeeg.com	Email: yi.wang@pacelabs.com

REPORT OF ENVIRONMENTAL FORENSICS ISOTOPE ANALYSES

Date Received: 8/24/2016
Date Reported: 9/15/2016

Water sample submitted for $\delta^{13}C$ (‰ VPDB) and $\delta^{2}H$ (‰ VSMOW) stable isotope analysis of 1,4-Dioxane

Pace CSIA Lab ID	Client's Sample ID Description	$\delta^{13}C$ 1,4-Dioxane	$\delta^{2}H$ 1,4-Dioxane
20025-1	RW-11D(262-267)-082316	-29.71	-97.31
20025-2	PMP-AS-180-082316	-29.55	[JA] -110.61
20025-3	PMP-AS-230-082316	-29.86	-103.75
20025-4	R-3DD(175-180)-082316	-29.24	[JA] -105.04

[J]-Target analyte produced a low peak signal and the result is considered usable to ± 2‰, but not the standard ± 0.5‰
[JA]-Target analyte produced a low peak signal and the result is considered usable to ± 20‰, but not the standard ± 10‰
[U]-Either there was no peak corresponding to the target analyte or that such a peak did not produce a reliable CSIA result due to sample matrix or high dilutions applied to avoid instrument contamination
Method: Compound Specific Isotope Analysis for ^{13}C and ^{2}H by GC-IRMS, for ^{37}Cl by GC-qMS
VPDB: Vienna Pee Dee Belemnite (carbon isotope international standard)
VSMOW: Vienna Standard Mean Ocean Water (hydrogen isotope international standard)

	$\delta^{13}C$	$\delta^{2}H$
Quality Control STDs	1,4-Dioxane	1,4-Dioxane
QC-1	-33.05	-73.90
QC-2	-32.98	-75.35
Mean	-33.01	-74.63
Analytical precision (1σ)	0.05	1.03

Pace CSIA Forensic Isotope Services

Product or Dissolved Organics: Chlorinated Solvents, Oil, Extract, Fraction and Kerogen
2D-CSIA for 1,4-D PCE TCE DCE VC TCA DCA CT CF DCM CA CM MTBE TBA BTEX CH_4 and more; Bulk ^{13}C, ^{2}H, ^{18}O, ^{34}S, and ^{15}N
Gas Sample
Gas Composition and 2D-CSIA of ^{13}C and ^{2}H of C1 to C5; ^{13}C of CO_2; ^{14}C of C1 and CO_2; ^{34}S of H_2S; ^{15}N and ^{18}O of N_2O gas
Water and Dissolved Inorganics
^{2}H, ^{3}H and ^{18}O; ^{34}S and ^{18}O of dissolved sulfate; ^{34}S of dissolved H_2S
^{15}N and ^{18}O of dissolved Nitrate; ^{15}N of Ammonia; ^{13}C of dissolved CO_2 and Carbonate/Bicarbonate
Soil and Minerals
^{13}C, ^{18}O, ^{15}N, ^{34}S, D/H; ^{14}C of carbonate or organics
Post-Analysis Forensic Isotope Data Interpretation

Pace Analytical®
www.pacelabs.com

220 William Pitt Way
Pittsburgh, PA 15238
412-826-5245

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

20025

WO 20025

Page: 1 of 1

008367

11 of 44

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Cornerstone Environmental Group	Report To: Tim Reeper	Attention:
Address: 100 Crystal Run Rd, Suite 101 Middletown, NY 10941	Copy To:	Company Name:
		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: 8456950200 Fax:	Project Name: Ford - Ringwood	Pace Project Manager:
Requested Due Date/TAT:	Project Number: 140802-015	Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER _____

Site Location STATE: NJ

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zinc Acetate & NaOH	Other	Analysis Test Y/N	1,4-Dioxane, Methanol (532)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	RW-11D (262-267)-082316	WT	G	8/23/16	09:05				5				3				2	Y	Y		
2	PMP-AS-180-082316	WT	G	8/23/16	10:25				5				3				2	Y	Y		
3	PMP-AS-230-082316	WT	G	8/23/16	13:25				5				3				2	Y	Y		
4	RW-3DD (175-180)-082316	WT	G	8/23/16	13:25				5				3				2	Y	Y		
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
		8/23/16	16:30		8/24/16	1030	-1.2	Y	-N	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Robert Lautenberg

SIGNATURE of SAMPLER: _____ DATE Signed (MM/DD/YY): 08/23/16

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Cooler Receipt Form

Client Name: Cornerstone Environmental Project: Ford Ringwood Lab Work Order: 20025

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ Air bill Present: Yes No

Tracking Number: 7839 0204 3933

Custody Seal on Cooler/Box Present: Yes (No) Seals Intact: Yes No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None Ice Intact: (Yes) Melted

Cooler Temperature: -1.2 Radiation Screened: Yes (No) Chain of Custody Present: (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC	✓			
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments:_____

Cooler contents examined/received by: J.wd Date: 8-24-14

Project Manager Review: RW Date: 8-25-14

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

August 29, 2016

Ruth Welsh
Pace Analytical Energy Services, LLC
220 William Pitt Way
Pittsburgh, PA 15238

RE: Project: 20025
Pace Project No.: 35262213

Dear Ruth Welsh:
Enclosed are the analytical results for sample(s) received by the laboratory on August 26, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Bo Garcia
bo.garcia@pacelabs.com
Project Manager

Enclosures

cc: Mark Mikesell
YI WANG, Pace Analytical Energy Services, LLC

CERTIFICATIONS

Project: 20025
Pace Project No.: 35262213

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Wyoming Certification: FL NELAC Reciprocity
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

SAMPLE SUMMARY

Project: 20025
Pace Project No.: 35262213

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35262213001	**RW-11D (262-267) 082316**	Water	08/23/16 09:05	08/26/16 10:55
35262213002	**PMP-AS-180-082316**	Water	08/23/16 10:25	08/26/16 10:55
35262213003	**PMP-AS-230-082316**	Water	08/23/16 13:25	08/26/16 10:55
35262213004	**RW-3DD (175-180) 082316**	Water	08/23/16 13:25	08/26/16 10:55

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

SAMPLE ANALYTE COUNT

Project: 20025
Pace Project No.: 35262213

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35262213001	**RW-11D (262-267) 082316**	EPA 522	IRL	2	PASI-O
35262213002	**PMP-AS-180-082316**	EPA 522	IRL	2	PASI-O
35262213003	**PMP-AS-230-082316**	EPA 522	IRL	2	PASI-O
35262213004	**RW-3DD (175-180) 082316**	EPA 522	IRL	2	PASI-O

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: 20025
Pace Project No.: 35262213

Sample: RW-11D (262-267) 082316 **Lab ID: 35262213001** Collected: 08/23/16 09:05 Received: 08/26/16 10:55 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
522 MSS 1,4 Dioxane	Analytical Method: EPA 522 Preparation Method: EPA 522								
1,4-Dioxane (p-Dioxane)	**54.4**	ug/L	0.35	0.14	5	08/27/16 14:00	08/29/16 16:12	123-91-1	
Surrogates									
1,4-Dioxane-d8 (S)	83	%	70-130		1	08/27/16 14:00	08/29/16 13:17		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: 20025
Pace Project No.: 35262213

Sample: PMP-AS-180-082316 **Lab ID: 35262213002** Collected: 08/23/16 10:25 Received: 08/26/16 10:55 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
522 MSS 1,4 Dioxane	Analytical Method: EPA 522 Preparation Method: EPA 522								
1,4-Dioxane (p-Dioxane)	**16.6**	ug/L	0.070	0.028	1	08/27/16 14:00	08/29/16 13:40	123-91-1	
Surrogates									
1,4-Dioxane-d8 (S)	89	%	70-130		1	08/27/16 14:00	08/29/16 13:40		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: 20025
Pace Project No.: 35262213

Sample: PMP-AS-230-082316 **Lab ID: 35262213003** Collected: 08/23/16 13:25 Received: 08/26/16 10:55 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
522 MSS 1,4 Dioxane	Analytical Method: EPA 522 Preparation Method: EPA 522								
1,4-Dioxane (p-Dioxane)	**107**	ug/L	0.70	0.28	10	08/27/16 14:00	08/29/16 16:34	123-91-1	
Surrogates									
1,4-Dioxane-d8 (S)	80	%	70-130		1	08/27/16 14:00	08/29/16 14:03		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: 20025
Pace Project No.: 35262213

Sample: RW-3DD (175-180) 082316 **Lab ID: 35262213004** Collected: 08/23/16 13:25 Received: 08/26/16 10:55 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
522 MSS 1,4 Dioxane	Analytical Method: EPA 522 Preparation Method: EPA 522								
1,4-Dioxane (p-Dioxane)	**20.9**	ug/L	0.070	0.028	1	08/27/16 14:00	08/29/16 14:26	123-91-1	
Surrogates									
1,4-Dioxane-d8 (S)	88	%	70-130		1	08/27/16 14:00	08/29/16 14:26		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: 20025
Pace Project No.: 35262213

QC Batch: 316868 Analysis Method: EPA 522
QC Batch Method: EPA 522 Analysis Description: 522 MSS 1,4 Dioxane
Associated Lab Samples: 35262213001, 35262213002, 35262213003, 35262213004

METHOD BLANK: 1682946 Matrix: Water
Associated Lab Samples: 35262213001, 35262213002, 35262213003, 35262213004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.028	0.070	0.028	08/29/16 11:01	
1,4-Dioxane-d8 (S)	%	87	70-130		08/29/16 11:01	

LABORATORY CONTROL SAMPLE: 1682947

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	.04	<0.028	55	50-150	
1,4-Dioxane-d8 (S)	%			84	70-130	

LABORATORY CONTROL SAMPLE & LCSD: 1683370 1683371

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	10	9.1	9.1	91	91	50-150	0	20	
1,4-Dioxane-d8 (S)	%				89	89	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

QUALIFIERS

Project: 20025
Pace Project No.: 35262213

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-O Pace Analytical Services - Ormond Beach

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 20025
Pace Project No.: 35262213

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35262213001	**RW-11D (262-267) 082316**	EPA 522	316868	EPA 522	317738
35262213002	**PMP-AS-180-082316**	EPA 522	316868	EPA 522	317738
35262213003	**PMP-AS-230-082316**	EPA 522	316868	EPA 522	317738
35262213004	**RW-3DD (175-180) 082316**	EPA 522	316868	EPA 522	317738

WO#: 35262213

35262213

S128 Line 1 (522)

CHAIN-OF-CUSTODY RECORD

Pace Analytical Energy Services, LLC - 220 William Pitt Way - Pittsburgh, PA 15238 Fax: (412) 826-3433

Results to: ruth.welsh@pacelabs.com
mark.mikesell@pacelabs.com

SEND TO: Pace DUE DATE: 9/2/2016

Invoice to: ruth.welsh@pacelabs.com

Lab Proj. # 20025

Company: Pace Analytical Energy Services, LLC
Co. Address: 220 William Pitt Way, Pittsburgh, PA 15238
Phone #: 412-826-5245
Fax #: 412-826-3433

State of Origin: NJ

Preservatives
1 -Unpreserved 4-HCL
2- H2SO4 5-NaOH+Zn Ace.
3- HNO3

Sample ID	Sample Type: Water	Sample Type: Solid	Date	Time	# Bottles	Preservatives	Parameters Requested: 1,4-Dioxane	Remarks:
RW-11D(262-267)-082316 (200250001)	X		8/23/16	9:05	1	Sodium Sulfite	X	
PMP-AS-180-082316(200250002)	X		8/23/16	10:25	1	Sodium Sulfite	X	
PMP-AS-230-082316(200250003)	X		8/23/16	13:25	1	Sodium Sulfite	X	
RW-3DD(175-180)-082316 (200250004)	X		8/23/16	13:25	1	Sodium Sulfite	X	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
RWelsh	PAES	8-25-16	1300		SPACE	8/26/16	1055
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

5.4T-2

WO 20025

Pace Analytical Florida Laboratory	Document Name: Sample Condition Upon Receipt Form	Document Revised: August 10, 2016
	Document No.: F-FL-C-007 rev. 10	Issuing Authority: Pace Florida Quality Office

Sample Condition Upon Receipt

WO# : 35262213

Project #
Project Manager: PM: VEG Due Date: 08/29/16
Client: CLIENT: PAANAL

Date and Initials of person:
Examining contents: JAR
Label:
Deliver:
pH:

Thermometer Used: T227 Date: 8/26/16 Time: 1055 Initials: MA

Samples shorted to lab (If Yes, complete) Shorted Date:_____ Shorted Time:_____ Qty:_____

Cooler #1 Temp.°C	5.5 **(Visual)**	0.1 **(Correction Factor)**	5.4 **(Actual)**	☐ Samples on ice, cooling process has begun
Cooler #2 Temp.°C	_____ **(Visual)**	_____ **(Correction Factor)**	_____ **(Actual)**	☐ Samples on ice, cooling process has begun
Cooler #3 Temp.°C	_____ **(Visual)**	_____ **(Correction Factor)**	_____ **(Actual)**	☐ Samples on ice, cooling process has begun
Cooler #4 Temp.°C	_____ **(Visual)**	_____ **(Correction Factor)**	_____ **(Actual)**	☐ Samples on ice, cooling process has begun
Cooler #5 Temp.°C	_____ **(Visual)**	_____ **(Correction Factor)**	_____ **(Actual)**	☐ Samples on ice, cooling process has begun
Cooler #6 Temp.°C	_____ **(Visual)**	_____ **(Correction Factor)**	_____ **(Actual)**	☐ Samples on ice, cooling process has begun

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other_____

Shipping Method: ☐ First Overnight ☐ Priority Overnight ☒ Standard Overnight ☐ Ground ☐ Other_____

Billing: ☐ Recipient ☐ Sender ☐ Third Party ☐ Unknown

Tracking # 5768 0698 3260

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No **Seals intact:** ☐ Yes ☒ No **Ice:** (Wet) Blue None

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other_____

		Comments:
Chain of Custody Present	☒Yes ☐ No ☐N/A	
Chain of Custody Filled Out	☒Yes ☐ No ☐N/A	
Relinquished Signature & Sampler Name COC	☒Yes ☐ No ☐N/A	
Samples Arrived within Hold Time	☒Yes ☐ No ☐N/A	
Rush TAT requested on COC	☐Yes ☒ No ☐N/A	
Sufficient Volume	☒Yes ☐ No ☐N/A	
Correct Containers Used	☒Yes ☐ No ☐N/A	
Containers Intact	☒Yes ☐ No ☐N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☒Yes ☐ No ☐N/A	
All containers needing acid/base preservation have been checked.	☒Yes ☐ No ☐N/A	Preservation Information:
All Containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: VOA, Coliform, TOC, O&G, Carbamates	☒Yes ☐ No ☐N/A	Preservative:_____ Lot #/Trace #:_____ Date:_____ Time:_____ Initials:_____
Headspace in VOA Vials? (>6mm):	☐Yes ☐ No ☒N/A	
Trip Blank Present:	☐Yes ☐ No ☐N/A	

Client Notification/ Resolution:

Person Contacted:_____ Date/Time:_____

Comments/ Resolution (use back for additional comments):_____

Project Manager Review:_____ Date:_____

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

September 01, 2016

Jianwu Tang
Pace Analytical Energy Services
220 William Pitt Way
Pittsburgh, PA 15238

RE: Project: 20025
Pace Project No.: 30194224

Dear Jianwu Tang:
Enclosed are the analytical results for sample(s) received by the laboratory on August 25, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel D Christner

Rachel Christner for
David A. Pichette
david.pichette@pacelabs.com
Project Manager

Enclosures

cc: Mark Mikesell, Pace Analytical Energy Services

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 20025
Pace Project No.: 30194224

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: 20025
Pace Project No.: 30194224

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30194224001	**RW-11D(262-267)-082316 (200250**	Water	08/23/16 09:05	08/25/16 16:30
30194224002	**PMP-AS-180-082316(200250002)**	Water	08/23/16 10:25	08/25/16 16:30
30194224003	**PMP-AS-230-082316(200250003)**	Water	08/23/16 13:25	08/25/16 16:30
30194224004	**RW-3DD(175-180)-082316 (200250**	Water	08/23/16 13:25	08/25/16 16:30

Pace Analytical Services, Inc.
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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: 20025
Pace Project No.: 30194224

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30194224001	**RW-11D(262-267)-082316 (200250**	EPA 8260B	RES	52	PASI-PA
30194224002	**PMP-AS-180-082316(200250002)**	EPA 8260B	RES	52	PASI-PA
30194224003	**PMP-AS-230-082316(200250003)**	EPA 8260B	RES	52	PASI-PA
30194224004	**RW-3DD(175-180)-082316 (200250**	EPA 8260B	RES	52	PASI-PA

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 20025
Pace Project No.: 30194224

Method: **EPA 8260B**
Description: 8260B MSV
Client: Pace Analytical Energy Services, LLC
Date: September 01, 2016

General Information:
4 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 20025
Pace Project No.: 30194224

Sample: RW-11D(262-267)-082316 (200250 **Lab ID: 30194224001** Collected: 08/23/16 09:05 Received: 08/25/16 16:30 Matrix: Water

Comments: • Sample Acceptance Policy Waiver on file from the client.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Acetone	**44.3**	ug/L	10.0	2.3	1		08/29/16 21:19	67-64-1	
tert-Amylmethyl ether	**1.0 U**	ug/L	1.0	0.19	1		08/29/16 21:19	994-05-8	
Benzene	**5.2**	ug/L	1.0	0.16	1		08/29/16 21:19	71-43-2	
Bromochloromethane	**1.0 U**	ug/L	1.0	0.42	1		08/29/16 21:19	74-97-5	
Bromodichloromethane	**1.0 U**	ug/L	1.0	0.15	1		08/29/16 21:19	75-27-4	
Bromoform	**1.0 U**	ug/L	1.0	0.31	1		08/29/16 21:19	75-25-2	
Bromomethane	**1.0 U**	ug/L	1.0	0.58	1		08/29/16 21:19	74-83-9	
2-Butanone (MEK)	**5.9J**	ug/L	10.0	2.4	1		08/29/16 21:19	78-93-3	
tert-Butyl Alcohol	**5.0 U**	ug/L	5.0	3.8	1		08/29/16 21:19	75-65-0	
Carbon disulfide	**18.5**	ug/L	1.0	0.32	1		08/29/16 21:19	75-15-0	
Carbon tetrachloride	**1.0 U**	ug/L	1.0	0.22	1		08/29/16 21:19	56-23-5	
Chlorobenzene	**2.8**	ug/L	1.0	0.13	1		08/29/16 21:19	108-90-7	
Chloroethane	**6.9**	ug/L	1.0	0.69	1		08/29/16 21:19	75-00-3	
Chloroform	**1.0 U**	ug/L	1.0	0.19	1		08/29/16 21:19	67-66-3	
Chloromethane	**1.0 U**	ug/L	1.0	0.26	1		08/29/16 21:19	74-87-3	
Dibromochloromethane	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 21:19	124-48-1	
1,2-Dichlorobenzene	**1.0 U**	ug/L	1.0	0.19	1		08/29/16 21:19	95-50-1	
1,3-Dichlorobenzene	**1.0 U**	ug/L	1.0	0.13	1		08/29/16 21:19	541-73-1	
1,4-Dichlorobenzene	**1.0 U**	ug/L	1.0	0.24	1		08/29/16 21:19	106-46-7	
1,1-Dichloroethane	**1.0 U**	ug/L	1.0	0.19	1		08/29/16 21:19	75-34-3	
1,2-Dichloroethane	**1.0 U**	ug/L	1.0	0.36	1		08/29/16 21:19	107-06-2	
1,2-Dichloroethene (Total)	**2.0 U**	ug/L	2.0	0.45	1		08/30/16 22:18	540-59-0	
1,1-Dichloroethene	**1.0 U**	ug/L	1.0	0.26	1		08/29/16 21:19	75-35-4	
cis-1,2-Dichloroethene	**1.0 U**	ug/L	1.0	0.23	1		08/30/16 22:18	156-59-2	
trans-1,2-Dichloroethene	**1.0 U**	ug/L	1.0	0.22	1		08/29/16 21:19	156-60-5	
1,2-Dichloropropane	**1.0 U**	ug/L	1.0	0.23	1		08/29/16 21:19	78-87-5	
cis-1,3-Dichloropropene	**1.0 U**	ug/L	1.0	0.27	1		08/29/16 21:19	10061-01-5	
trans-1,3-Dichloropropene	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 21:19	10061-02-6	
Diisopropyl ether	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 21:19	108-20-3	
Ethylbenzene	**1.0 U**	ug/L	1.0	0.23	1		08/29/16 21:19	100-41-4	
Ethyl-tert-butyl ether	**1.0 U**	ug/L	1.0	0.14	1		08/29/16 21:19	637-92-3	
2-Hexanone	**10.0 U**	ug/L	10.0	0.58	1		08/29/16 21:19	591-78-6	
Methylene Chloride	**1.0 U**	ug/L	1.0	0.59	1		08/29/16 21:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	**10.0 U**	ug/L	10.0	0.57	1		08/29/16 21:19	108-10-1	
Methyl-tert-butyl ether	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 21:19	1634-04-4	
Naphthalene	**2.0 U**	ug/L	2.0	0.19	1		08/29/16 21:19	91-20-3	
Styrene	**1.0 U**	ug/L	1.0	0.16	1		08/29/16 21:19	100-42-5	
1,1,2,2-Tetrachloroethane	**1.0 U**	ug/L	1.0	0.23	1		08/29/16 21:19	79-34-5	
Tetrachloroethene	**1.0 U**	ug/L	1.0	0.29	1		08/29/16 21:19	127-18-4	
Toluene	**1.0 U**	ug/L	1.0	0.13	1		08/29/16 21:19	108-88-3	
1,2,4-Trichlorobenzene	**1.0 U**	ug/L	1.0	0.39	1		08/29/16 21:19	120-82-1	
1,1,1-Trichloroethane	**1.0 U**	ug/L	1.0	0.29	1		08/29/16 21:19	71-55-6	
1,1,2-Trichloroethane	**1.0 U**	ug/L	1.0	0.32	1		08/29/16 21:19	79-00-5	
Trichloroethene	**1.0 U**	ug/L	1.0	0.33	1		08/30/16 22:18	79-01-6	

REPORT OF LABORATORY ANALYSIS

ANALYTICAL RESULTS

Project: 20025
Pace Project No.: 30194224

Sample: RW-11D(262-267)-082316 (200250 **Lab ID: 30194224001** Collected: 08/23/16 09:05 Received: 08/25/16 16:30 Matrix: Water

Comments: • Sample Acceptance Policy Waiver on file from the client.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Vinyl chloride	**1.0 U**	ug/L	1.0	0.20	1		08/29/16 21:19	75-01-4	
Xylene (Total)	**3.0 U**	ug/L	3.0	0.55	1		08/29/16 21:19	1330-20-7	
m&p-Xylene	**2.0 U**	ug/L	2.0	0.32	1		08/29/16 21:19	179601-23-1	
o-Xylene	**1.0 U**	ug/L	1.0	0.22	1		08/29/16 21:19	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	81-119		1		08/29/16 21:19	460-00-4	
1,2-Dichloroethane-d4 (S)	83	%	77-126		1		08/29/16 21:19	17060-07-0	
Toluene-d8 (S)	105	%	84-115		1		08/29/16 21:19	2037-26-5	
Dibromofluoromethane (S)	97	%	70-130		1		08/29/16 21:19	1868-53-7	

Sample: PMP-AS-180-082316(200250002) **Lab ID: 30194224002** Collected: 08/23/16 10:25 Received: 08/25/16 16:30 Matrix: Water

Comments: • Sample Acceptance Policy Waiver on file from the client.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Acetone	**10.0 U**	ug/L	10.0	2.3	1		08/29/16 14:56	67-64-1	
tert-Amylmethyl ether	**1.0 U**	ug/L	1.0	0.19	1		08/29/16 14:56	994-05-8	
Benzene	**6.1**	ug/L	1.0	0.16	1		08/29/16 14:56	71-43-2	
Bromochloromethane	**1.0 U**	ug/L	1.0	0.42	1		08/29/16 14:56	74-97-5	
Bromodichloromethane	**1.0 U**	ug/L	1.0	0.15	1		08/29/16 14:56	75-27-4	
Bromoform	**1.0 U**	ug/L	1.0	0.31	1		08/29/16 14:56	75-25-2	
Bromomethane	**1.0 U**	ug/L	1.0	0.58	1		08/29/16 14:56	74-83-9	
2-Butanone (MEK)	**10.0 U**	ug/L	10.0	2.4	1		08/29/16 14:56	78-93-3	
tert-Butyl Alcohol	**5.0 U**	ug/L	5.0	3.8	1		08/29/16 14:56	75-65-0	
Carbon disulfide	**1.0 U**	ug/L	1.0	0.32	1		08/29/16 14:56	75-15-0	
Carbon tetrachloride	**1.0 U**	ug/L	1.0	0.22	1		08/29/16 14:56	56-23-5	
Chlorobenzene	**1.6**	ug/L	1.0	0.13	1		08/29/16 14:56	108-90-7	
Chloroethane	**18.8**	ug/L	1.0	0.69	1		08/29/16 14:56	75-00-3	
Chloroform	**1.0 U**	ug/L	1.0	0.19	1		08/29/16 14:56	67-66-3	
Chloromethane	**1.0 U**	ug/L	1.0	0.26	1		08/29/16 14:56	74-87-3	
Dibromochloromethane	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 14:56	124-48-1	
1,2-Dichlorobenzene	**1.0 U**	ug/L	1.0	0.19	1		08/29/16 14:56	95-50-1	
1,3-Dichlorobenzene	**1.0 U**	ug/L	1.0	0.13	1		08/29/16 14:56	541-73-1	
1,4-Dichlorobenzene	**1.0 U**	ug/L	1.0	0.24	1		08/29/16 14:56	106-46-7	
1,1-Dichloroethane	**0.61J**	ug/L	1.0	0.19	1		08/29/16 14:56	75-34-3	
1,2-Dichloroethane	**1.0 U**	ug/L	1.0	0.36	1		08/29/16 14:56	107-06-2	
1,2-Dichloroethene (Total)	**2.0 U**	ug/L	2.0	0.45	1		08/29/16 14:56	540-59-0	
1,1-Dichloroethene	**1.0 U**	ug/L	1.0	0.26	1		08/29/16 14:56	75-35-4	
cis-1,2-Dichloroethene	**1.0 U**	ug/L	1.0	0.23	1		08/29/16 14:56	156-59-2	
trans-1,2-Dichloroethene	**1.0 U**	ug/L	1.0	0.22	1		08/29/16 14:56	156-60-5	
1,2-Dichloropropane	**1.0 U**	ug/L	1.0	0.23	1		08/29/16 14:56	78-87-5	

REPORT OF LABORATORY ANALYSIS

ANALYTICAL RESULTS

Project: 20025
Pace Project No.: 30194224

Sample: PMP-AS-180-082316(200250002) **Lab ID: 30194224002** Collected: 08/23/16 10:25 Received: 08/25/16 16:30 Matrix: Water

Comments: • Sample Acceptance Policy Waiver on file from the client.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
cis-1,3-Dichloropropene	**1.0 U**	ug/L	1.0	0.27	1		08/29/16 14:56	10061-01-5	
trans-1,3-Dichloropropene	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 14:56	10061-02-6	
Diisopropyl ether	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 14:56	108-20-3	
Ethylbenzene	**1.0 U**	ug/L	1.0	0.23	1		08/29/16 14:56	100-41-4	
Ethyl-tert-butyl ether	**1.0 U**	ug/L	1.0	0.14	1		08/29/16 14:56	637-92-3	
2-Hexanone	**10.0 U**	ug/L	10.0	0.58	1		08/29/16 14:56	591-78-6	
Methylene Chloride	**1.0 U**	ug/L	1.0	0.59	1		08/29/16 14:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	**10.0 U**	ug/L	10.0	0.57	1		08/29/16 14:56	108-10-1	
Methyl-tert-butyl ether	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 14:56	1634-04-4	
Naphthalene	**2.0 U**	ug/L	2.0	0.19	1		08/29/16 14:56	91-20-3	
Styrene	**1.0 U**	ug/L	1.0	0.16	1		08/29/16 14:56	100-42-5	
1,1,2,2-Tetrachloroethane	**1.0 U**	ug/L	1.0	0.23	1		08/29/16 14:56	79-34-5	
Tetrachloroethene	**1.0 U**	ug/L	1.0	0.29	1		08/29/16 14:56	127-18-4	
Toluene	**1.0 U**	ug/L	1.0	0.13	1		08/29/16 14:56	108-88-3	
1,2,4-Trichlorobenzene	**1.0 U**	ug/L	1.0	0.39	1		08/29/16 14:56	120-82-1	
1,1,1-Trichloroethane	**1.0 U**	ug/L	1.0	0.29	1		08/29/16 14:56	71-55-6	
1,1,2-Trichloroethane	**1.0 U**	ug/L	1.0	0.32	1		08/29/16 14:56	79-00-5	
Trichloroethene	**1.0 U**	ug/L	1.0	0.33	1		08/29/16 14:56	79-01-6	
Vinyl chloride	**1.0 U**	ug/L	1.0	0.20	1		08/29/16 14:56	75-01-4	
Xylene (Total)	**1.4J**	ug/L	3.0	0.55	1		08/29/16 14:56	1330-20-7	
m&p-Xylene	**1.2J**	ug/L	2.0	0.32	1		08/29/16 14:56	179601-23-1	
o-Xylene	**0.23J**	ug/L	1.0	0.22	1		08/29/16 14:56	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	81-119		1		08/29/16 14:56	460-00-4	
1,2-Dichloroethane-d4 (S)	83	%	77-126		1		08/29/16 14:56	17060-07-0	
Toluene-d8 (S)	106	%	84-115		1		08/29/16 14:56	2037-26-5	
Dibromofluoromethane (S)	100	%	70-130		1		08/29/16 14:56	1868-53-7	

Sample: PMP-AS-230-082316(200250003) **Lab ID: 30194224003** Collected: 08/23/16 13:25 Received: 08/25/16 16:30 Matrix: Water

Comments: • Sample Acceptance Policy Waiver on file from the client.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Acetone	**18.1**	ug/L	10.0	2.3	1		08/29/16 15:47	67-64-1	
tert-Amylmethyl ether	**1.0 U**	ug/L	1.0	0.19	1		08/29/16 15:47	994-05-8	
Benzene	**28.9**	ug/L	1.0	0.16	1		08/29/16 15:47	71-43-2	
Bromochloromethane	**1.0 U**	ug/L	1.0	0.42	1		08/29/16 15:47	74-97-5	
Bromodichloromethane	**1.0 U**	ug/L	1.0	0.15	1		08/29/16 15:47	75-27-4	
Bromoform	**1.0 U**	ug/L	1.0	0.31	1		08/29/16 15:47	75-25-2	
Bromomethane	**1.0 U**	ug/L	1.0	0.58	1		08/29/16 15:47	74-83-9	
2-Butanone (MEK)	**10.0 U**	ug/L	10.0	2.4	1		08/29/16 15:47	78-93-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 20025
Pace Project No.: 30194224

Sample: PMP-AS-230-082316(200250003) **Lab ID: 30194224003** Collected: 08/23/16 13:25 Received: 08/25/16 16:30 Matrix: Water

Comments: • Sample Acceptance Policy Waiver on file from the client.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
tert-Butyl Alcohol	**6.3**	ug/L	5.0	3.8	1		08/29/16 15:47	75-65-0	
Carbon disulfide	**1.0 U**	ug/L	1.0	0.32	1		08/29/16 15:47	75-15-0	
Carbon tetrachloride	**1.0 U**	ug/L	1.0	0.22	1		08/29/16 15:47	56-23-5	
Chlorobenzene	**22.6**	ug/L	1.0	0.13	1		08/29/16 15:47	108-90-7	
Chloroethane	**10.0**	ug/L	1.0	0.69	1		08/29/16 15:47	75-00-3	
Chloroform	**1.0 U**	ug/L	1.0	0.19	1		08/29/16 15:47	67-66-3	
Chloromethane	**1.0 U**	ug/L	1.0	0.26	1		08/29/16 15:47	74-87-3	
Dibromochloromethane	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 15:47	124-48-1	
1,2-Dichlorobenzene	**0.67J**	ug/L	1.0	0.19	1		08/29/16 15:47	95-50-1	
1,3-Dichlorobenzene	**2.8**	ug/L	1.0	0.13	1		08/29/16 15:47	541-73-1	
1,4-Dichlorobenzene	**7.7**	ug/L	1.0	0.24	1		08/29/16 15:47	106-46-7	
1,1-Dichloroethane	**1.0 U**	ug/L	1.0	0.19	1		08/29/16 15:47	75-34-3	
1,2-Dichloroethane	**1.0 U**	ug/L	1.0	0.36	1		08/29/16 15:47	107-06-2	
1,2-Dichloroethene (Total)	**2.0 U**	ug/L	2.0	0.45	1		08/29/16 15:47	540-59-0	
1,1-Dichloroethene	**1.0 U**	ug/L	1.0	0.26	1		08/29/16 15:47	75-35-4	
cis-1,2-Dichloroethene	**1.0 U**	ug/L	1.0	0.23	1		08/29/16 15:47	156-59-2	
trans-1,2-Dichloroethene	**1.0 U**	ug/L	1.0	0.22	1		08/29/16 15:47	156-60-5	
1,2-Dichloropropane	**1.0 U**	ug/L	1.0	0.23	1		08/29/16 15:47	78-87-5	
cis-1,3-Dichloropropene	**1.0 U**	ug/L	1.0	0.27	1		08/29/16 15:47	10061-01-5	
trans-1,3-Dichloropropene	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 15:47	10061-02-6	
Diisopropyl ether	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 15:47	108-20-3	
Ethylbenzene	**1.0 U**	ug/L	1.0	0.23	1		08/29/16 15:47	100-41-4	
Ethyl-tert-butyl ether	**1.0 U**	ug/L	1.0	0.14	1		08/29/16 15:47	637-92-3	
2-Hexanone	**10.0 U**	ug/L	10.0	0.58	1		08/29/16 15:47	591-78-6	
Methylene Chloride	**1.0 U**	ug/L	1.0	0.59	1		08/29/16 15:47	75-09-2	
4-Methyl-2-pentanone (MIBK)	**10.0 U**	ug/L	10.0	0.57	1		08/29/16 15:47	108-10-1	
Methyl-tert-butyl ether	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 15:47	1634-04-4	
Naphthalene	**7.7**	ug/L	2.0	0.19	1		08/29/16 15:47	91-20-3	
Styrene	**1.0 U**	ug/L	1.0	0.16	1		08/29/16 15:47	100-42-5	
1,1,2,2-Tetrachloroethane	**1.0 U**	ug/L	1.0	0.23	1		08/29/16 15:47	79-34-5	
Tetrachloroethene	**1.0 U**	ug/L	1.0	0.29	1		08/29/16 15:47	127-18-4	
Toluene	**0.23J**	ug/L	1.0	0.13	1		08/29/16 15:47	108-88-3	
1,2,4-Trichlorobenzene	**1.0 U**	ug/L	1.0	0.39	1		08/29/16 15:47	120-82-1	
1,1,1-Trichloroethane	**1.0 U**	ug/L	1.0	0.29	1		08/29/16 15:47	71-55-6	
1,1,2-Trichloroethane	**1.0 U**	ug/L	1.0	0.32	1		08/29/16 15:47	79-00-5	
Trichloroethene	**1.0 U**	ug/L	1.0	0.33	1		08/29/16 15:47	79-01-6	
Vinyl chloride	**1.0 U**	ug/L	1.0	0.20	1		08/29/16 15:47	75-01-4	
Xylene (Total)	**1.7J**	ug/L	3.0	0.55	1		08/29/16 15:47	1330-20-7	
m&p-Xylene	**1.4J**	ug/L	2.0	0.32	1		08/29/16 15:47	179601-23-1	
o-Xylene	**1.0 U**	ug/L	1.0	0.22	1		08/29/16 15:47	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	81-119		1		08/29/16 15:47	460-00-4	
1,2-Dichloroethane-d4 (S)	80	%	77-126		1		08/29/16 15:47	17060-07-0	
Toluene-d8 (S)	108	%	84-115		1		08/29/16 15:47	2037-26-5	
Dibromofluoromethane (S)	97	%	70-130		1		08/29/16 15:47	1868-53-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Project: 20025
Pace Project No.: 30194224

Sample: RW-3DD(175-180)-082316 (200250 **Lab ID: 30194224004** Collected: 08/23/16 13:25 Received: 08/25/16 16:30 Matrix: Water

Comments: • Sample Acceptance Policy Waiver on file from the client.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Acetone	**10.0 U**	ug/L	10.0	2.3	1		08/29/16 15:22	67-64-1	
tert-Amylmethyl ether	**1.0 U**	ug/L	1.0	0.19	1		08/29/16 15:22	994-05-8	
Benzene	**1.0 U**	ug/L	1.0	0.16	1		08/29/16 15:22	71-43-2	
Bromochloromethane	**1.0 U**	ug/L	1.0	0.42	1		08/29/16 15:22	74-97-5	
Bromodichloromethane	**1.0 U**	ug/L	1.0	0.15	1		08/29/16 15:22	75-27-4	
Bromoform	**1.0 U**	ug/L	1.0	0.31	1		08/29/16 15:22	75-25-2	
Bromomethane	**1.0 U**	ug/L	1.0	0.58	1		08/29/16 15:22	74-83-9	
2-Butanone (MEK)	**10.0 U**	ug/L	10.0	2.4	1		08/29/16 15:22	78-93-3	
tert-Butyl Alcohol	**5.0 U**	ug/L	5.0	3.8	1		08/29/16 15:22	75-65-0	
Carbon disulfide	**2.3**	ug/L	1.0	0.32	1		08/29/16 15:22	75-15-0	
Carbon tetrachloride	**1.0 U**	ug/L	1.0	0.22	1		08/29/16 15:22	56-23-5	
Chlorobenzene	**1.0 U**	ug/L	1.0	0.13	1		08/29/16 15:22	108-90-7	
Chloroethane	**1.0 U**	ug/L	1.0	0.69	1		08/29/16 15:22	75-00-3	
Chloroform	**1.0 U**	ug/L	1.0	0.19	1		08/29/16 15:22	67-66-3	
Chloromethane	**1.0 U**	ug/L	1.0	0.26	1		08/29/16 15:22	74-87-3	
Dibromochloromethane	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 15:22	124-48-1	
1,2-Dichlorobenzene	**1.0 U**	ug/L	1.0	0.19	1		08/29/16 15:22	95-50-1	
1,3-Dichlorobenzene	**1.0 U**	ug/L	1.0	0.13	1		08/29/16 15:22	541-73-1	
1,4-Dichlorobenzene	**1.0 U**	ug/L	1.0	0.24	1		08/29/16 15:22	106-46-7	
1,1-Dichloroethane	**2.3**	ug/L	1.0	0.19	1		08/29/16 15:22	75-34-3	
1,2-Dichloroethane	**1.0 U**	ug/L	1.0	0.36	1		08/29/16 15:22	107-06-2	
1,2-Dichloroethene (Total)	**2.0 U**	ug/L	2.0	0.45	1		08/29/16 15:22	540-59-0	
1,1-Dichloroethene	**1.0 U**	ug/L	1.0	0.26	1		08/29/16 15:22	75-35-4	
cis-1,2-Dichloroethene	**1.0 U**	ug/L	1.0	0.23	1		08/29/16 15:22	156-59-2	
trans-1,2-Dichloroethene	**1.0 U**	ug/L	1.0	0.22	1		08/29/16 15:22	156-60-5	
1,2-Dichloropropane	**1.0 U**	ug/L	1.0	0.23	1		08/29/16 15:22	78-87-5	
cis-1,3-Dichloropropene	**1.0 U**	ug/L	1.0	0.27	1		08/29/16 15:22	10061-01-5	
trans-1,3-Dichloropropene	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 15:22	10061-02-6	
Diisopropyl ether	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 15:22	108-20-3	
Ethylbenzene	**1.0 U**	ug/L	1.0	0.23	1		08/29/16 15:22	100-41-4	
Ethyl-tert-butyl ether	**1.0 U**	ug/L	1.0	0.14	1		08/29/16 15:22	637-92-3	
2-Hexanone	**10.0 U**	ug/L	10.0	0.58	1		08/29/16 15:22	591-78-6	
Methylene Chloride	**1.0 U**	ug/L	1.0	0.59	1		08/29/16 15:22	75-09-2	
4-Methyl-2-pentanone (MIBK)	**10.0 U**	ug/L	10.0	0.57	1		08/29/16 15:22	108-10-1	
Methyl-tert-butyl ether	**1.0 U**	ug/L	1.0	0.17	1		08/29/16 15:22	1634-04-4	
Naphthalene	**2.0 U**	ug/L	2.0	0.19	1		08/29/16 15:22	91-20-3	
Styrene	**1.0 U**	ug/L	1.0	0.16	1		08/29/16 15:22	100-42-5	
1,1,2,2-Tetrachloroethane	**1.0 U**	ug/L	1.0	0.23	1		08/29/16 15:22	79-34-5	
Tetrachloroethene	**1.0 U**	ug/L	1.0	0.29	1		08/29/16 15:22	127-18-4	
Toluene	**1.0 U**	ug/L	1.0	0.13	1		08/29/16 15:22	108-88-3	
1,2,4-Trichlorobenzene	**1.0 U**	ug/L	1.0	0.39	1		08/29/16 15:22	120-82-1	
1,1,1-Trichloroethane	**1.0 U**	ug/L	1.0	0.29	1		08/29/16 15:22	71-55-6	
1,1,2-Trichloroethane	**1.0 U**	ug/L	1.0	0.32	1		08/29/16 15:22	79-00-5	
Trichloroethene	**1.0 U**	ug/L	1.0	0.33	1		08/29/16 15:22	79-01-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Project: 20025
Pace Project No.: 30194224

Sample: RW-3DD(175-180)-082316 (200250 **Lab ID: 30194224004** Collected: 08/23/16 13:25 Received: 08/25/16 16:30 Matrix: Water

Comments: • Sample Acceptance Policy Waiver on file from the client.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV	Analytical Method: EPA 8260B								
Vinyl chloride	**1.0 U**	ug/L	1.0	0.20	1		08/29/16 15:22	75-01-4	
Xylene (Total)	**3.0 U**	ug/L	3.0	0.55	1		08/29/16 15:22	1330-20-7	
m&p-Xylene	**2.0 U**	ug/L	2.0	0.32	1		08/29/16 15:22	179601-23-1	
o-Xylene	**1.0 U**	ug/L	1.0	0.22	1		08/29/16 15:22	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	99	%	81-119		1		08/29/16 15:22	460-00-4	
1,2-Dichloroethane-d4 (S)	87	%	77-126		1		08/29/16 15:22	17060-07-0	
Toluene-d8 (S)	108	%	84-115		1		08/29/16 15:22	2037-26-5	
Dibromofluoromethane (S)	100	%	70-130		1		08/29/16 15:22	1868-53-7	

REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

Project: 20025
Pace Project No.: 30194224

QC Batch: 231377 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV
Associated Lab Samples: 30194224001, 30194224002, 30194224003, 30194224004

METHOD BLANK: 1133953 Matrix: Water
Associated Lab Samples: 30194224001, 30194224002, 30194224003, 30194224004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	1.0 U	1.0	0.29	08/29/16 12:49	
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0	0.23	08/29/16 12:49	
1,1,2-Trichloroethane	ug/L	1.0 U	1.0	0.32	08/29/16 12:49	
1,1-Dichloroethane	ug/L	1.0 U	1.0	0.19	08/29/16 12:49	
1,1-Dichloroethene	ug/L	1.0 U	1.0	0.26	08/29/16 12:49	
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0	0.39	08/29/16 12:49	
1,2-Dichlorobenzene	ug/L	1.0 U	1.0	0.19	08/29/16 12:49	
1,2-Dichloroethane	ug/L	1.0 U	1.0	0.36	08/29/16 12:49	
1,2-Dichloropropane	ug/L	1.0 U	1.0	0.23	08/29/16 12:49	
1,3-Dichlorobenzene	ug/L	1.0 U	1.0	0.13	08/29/16 12:49	
1,4-Dichlorobenzene	ug/L	1.0 U	1.0	0.24	08/29/16 12:49	
2-Butanone (MEK)	ug/L	10.0 U	10.0	2.4	08/29/16 12:49	
2-Hexanone	ug/L	10.0 U	10.0	0.58	08/29/16 12:49	
4-Methyl-2-pentanone (MIBK)	ug/L	10.0 U	10.0	0.57	08/29/16 12:49	
Acetone	ug/L	10.0 U	10.0	2.3	08/29/16 12:49	
Benzene	ug/L	1.0 U	1.0	0.16	08/29/16 12:49	
Bromochloromethane	ug/L	1.0 U	1.0	0.42	08/29/16 12:49	
Bromodichloromethane	ug/L	1.0 U	1.0	0.15	08/29/16 12:49	
Bromoform	ug/L	1.0 U	1.0	0.31	08/29/16 12:49	
Bromomethane	ug/L	1.0 U	1.0	0.58	08/29/16 12:49	
Carbon disulfide	ug/L	1.0 U	1.0	0.32	08/29/16 12:49	
Carbon tetrachloride	ug/L	1.0 U	1.0	0.22	08/29/16 12:49	
Chlorobenzene	ug/L	1.0 U	1.0	0.13	08/29/16 12:49	
Chloroethane	ug/L	1.0 U	1.0	0.69	08/29/16 12:49	
Chloroform	ug/L	1.0 U	1.0	0.19	08/29/16 12:49	
Chloromethane	ug/L	1.0 U	1.0	0.26	08/29/16 12:49	
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0	0.23	08/29/16 12:49	
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0	0.27	08/29/16 12:49	
Dibromochloromethane	ug/L	1.0 U	1.0	0.17	08/29/16 12:49	
Diisopropyl ether	ug/L	1.0 U	1.0	0.17	08/29/16 12:49	
Ethyl-tert-butyl ether	ug/L	1.0 U	1.0	0.14	08/29/16 12:49	
Ethylbenzene	ug/L	1.0 U	1.0	0.23	08/29/16 12:49	
m&p-Xylene	ug/L	2.0 U	2.0	0.32	08/29/16 12:49	
Methyl-tert-butyl ether	ug/L	1.0 U	1.0	0.17	08/29/16 12:49	
Methylene Chloride	ug/L	1.0 U	1.0	0.59	08/29/16 12:49	
Naphthalene	ug/L	2.0 U	2.0	0.19	08/29/16 12:49	
o-Xylene	ug/L	1.0 U	1.0	0.22	08/29/16 12:49	
Styrene	ug/L	1.0 U	1.0	0.16	08/29/16 12:49	
tert-Amylmethyl ether	ug/L	1.0 U	1.0	0.19	08/29/16 12:49	
tert-Butyl Alcohol	ug/L	5.0 U	5.0	3.8	08/29/16 12:49	
Tetrachloroethene	ug/L	1.0 U	1.0	0.29	08/29/16 12:49	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 20025
Pace Project No.: 30194224

METHOD BLANK: 1133953 Matrix: Water
Associated Lab Samples: 30194224001, 30194224002, 30194224003, 30194224004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Toluene	ug/L	1.0 U	1.0	0.13	08/29/16 12:49	
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0	0.22	08/29/16 12:49	
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0	0.17	08/29/16 12:49	
Trichloroethene	ug/L	1.0 U	1.0	0.33	08/29/16 12:49	
Vinyl chloride	ug/L	1.0 U	1.0	0.20	08/29/16 12:49	
Xylene (Total)	ug/L	3.0 U	3.0	0.55	08/29/16 12:49	
1,2-Dichloroethane-d4 (S)	%	85	77-126		08/29/16 12:49	
4-Bromofluorobenzene (S)	%	94	81-119		08/29/16 12:49	
Dibromofluoromethane (S)	%	98	70-130		08/29/16 12:49	
Toluene-d8 (S)	%	106	84-115		08/29/16 12:49	

LABORATORY CONTROL SAMPLE: 1133954

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	17.6	88	67-129	
1,1,2,2-Tetrachloroethane	ug/L	20	18.6	93	58-128	
1,1,2-Trichloroethane	ug/L	20	21.0	105	69-120	
1,1-Dichloroethane	ug/L	20	20.1	100	66-129	
1,1-Dichloroethene	ug/L	20	19.4	97	59-133	
1,2,4-Trichlorobenzene	ug/L	20	20.8	104	32-159	
1,2-Dichlorobenzene	ug/L	20	20.1	100	67-128	
1,2-Dichloroethane	ug/L	20	16.7	83	66-123	
1,2-Dichloropropane	ug/L	20	20.4	102	69-121	
1,3-Dichlorobenzene	ug/L	20	20.8	104	68-121	
1,4-Dichlorobenzene	ug/L	20	20.5	102	70-117	
2-Butanone (MEK)	ug/L	20	19.8	99	57-126	
2-Hexanone	ug/L	20	23.9	120	57-129	
4-Methyl-2-pentanone (MIBK)	ug/L	20	17.6	88	65-119	
Acetone	ug/L	20	16.3	81	35-113	
Benzene	ug/L	20	19.6	98	69-115	
Bromochloromethane	ug/L	20	19.3	96	62-125	
Bromodichloromethane	ug/L	20	18.3	92	69-132	
Bromoform	ug/L	20	18.5	92	52-142	
Bromomethane	ug/L	20	22.0	110	14-151	
Carbon disulfide	ug/L	20	26.0	130	53-156	
Carbon tetrachloride	ug/L	20	18.2	91	65-138	
Chlorobenzene	ug/L	20	22.0	110	69-120	
Chloroethane	ug/L	20	21.6	108	62-134	
Chloroform	ug/L	20	18.0	90	67-123	
Chloromethane	ug/L	20	24.2	121	54-143	
cis-1,2-Dichloroethene	ug/L	20	19.6	98	66-122	
cis-1,3-Dichloropropene	ug/L	20	18.9	94	64-125	
Dibromochloromethane	ug/L	20	21.1	105	61-135	
Diisopropyl ether	ug/L	20	23.4	117	60-131	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 20025
Pace Project No.: 30194224

LABORATORY CONTROL SAMPLE: 1133954

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ethyl-tert-butyl ether	ug/L	20	25.6	128	64-141	
Ethylbenzene	ug/L	20	20.9	104	71-116	
m&p-Xylene	ug/L	40	42.3	106	74-118	
Methyl-tert-butyl ether	ug/L	20	19.0	95	83-140	
Methylene Chloride	ug/L	20	20.7	104	56-130	
Naphthalene	ug/L	20	19.7	98	64-140	
o-Xylene	ug/L	20	20.6	103	71-119	
Styrene	ug/L	20	21.0	105	71-129	
tert-Amylmethyl ether	ug/L	20	15.8	79	61-115	
tert-Butyl Alcohol	ug/L	100	73.0	73	32-161	
Tetrachloroethene	ug/L	20	21.4	107	62-122	
Toluene	ug/L	20	21.2	106	70-115	
trans-1,2-Dichloroethene	ug/L	20	19.3	96	63-130	
trans-1,3-Dichloropropene	ug/L	20	18.3	91	62-122	
Trichloroethene	ug/L	20	20.7	103	61-126	
Vinyl chloride	ug/L	20	24.4	122	58-127	
Xylene (Total)	ug/L	60	62.9	105	73-118	
1,2-Dichloroethane-d4 (S)	%			81	77-126	
4-Bromofluorobenzene (S)	%			98	81-119	
Dibromofluoromethane (S)	%			97	70-130	
Toluene-d8 (S)	%			107	84-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1134117 1134118

Parameter	Units	30194224004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	1.0 U	20	20	15.7	15.5	78	77	54-140	1	30	
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	20	20	15.9	15.5	79	77	54-124	3	30	
1,1,2-Trichloroethane	ug/L	1.0 U	20	20	18.5	17.4	92	87	58-120	6	30	
1,1-Dichloroethane	ug/L	2.3	20	20	20.2	19.8	90	87	55-133	2	30	
1,1-Dichloroethene	ug/L	1.0 U	20	20	17.8	17.2	89	86	48-141	3	30	
1,2,4-Trichlorobenzene	ug/L	1.0 U	20	20	15.5	17.0	77	85	33-130	10	30	
1,2-Dichlorobenzene	ug/L	1.0 U	20	20	16.7	16.8	84	84	57-124	1	30	
1,2-Dichloroethane	ug/L	1.0 U	20	20	15.5	14.4	77	72	58-123	7	30	
1,2-Dichloropropane	ug/L	1.0 U	20	20	18.2	17.4	91	87	55-125	4	30	
1,3-Dichlorobenzene	ug/L	1.0 U	20	20	17.0	17.5	85	87	62-113	3	30	
1,4-Dichlorobenzene	ug/L	1.0 U	20	20	17.3	17.7	87	89	61-111	2	30	
2-Butanone (MEK)	ug/L	10.0 U	20	20	19.3	17.5	96	88	43-128	10	30	
2-Hexanone	ug/L	10.0 U	20	20	19.0	18.5	95	92	43-135	3	30	
4-Methyl-2-pentanone (MIBK)	ug/L	10.0 U	20	20	14.2	13.9	71	69	47-123	2	30	
Acetone	ug/L	10.0 U	20	20	18.3	19.3	92	96	10-150	5	30	
Benzene	ug/L	1.0 U	20	20	17.5	17.3	88	86	63-123	2	30	
Bromochloromethane	ug/L	1.0 U	20	20	17.4	16.6	87	83	42-149	5	30	
Bromodichloromethane	ug/L	1.0 U	20	20	16.5	15.6	82	78	55-127	5	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 20025
Pace Project No.: 30194224

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1134117 1134118

Parameter	Units	30194224004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Bromoform	ug/L	1.0 U	20	20	16.3	15.4	81	77	44-131	5	30	
Bromomethane	ug/L	1.0 U	20	20	15.7	17.4	78	87	10-149	10	30	
Carbon disulfide	ug/L	2.3	20	20	22.4	22.9	100	103	47-158	2	30	
Carbon tetrachloride	ug/L	1.0 U	20	20	16.0	15.8	80	79	44-155	1	30	
Chlorobenzene	ug/L	1.0 U	20	20	19.3	19.0	96	95	57-121	1	30	
Chloroethane	ug/L	1.0 U	20	20	18.6	19.6	93	98	57-156	6	30	
Chloroform	ug/L	1.0 U	20	20	16.2	16.1	81	81	56-132	0	30	
Chloromethane	ug/L	1.0 U	20	20	21.4	21.8	107	109	42-163	2	30	
cis-1,2-Dichloroethene	ug/L	1.0 U	20	20	17.6	17.0	87	84	46-139	3	30	
cis-1,3-Dichloropropene	ug/L	1.0 U	20	20	15.8	15.2	79	76	55-119	4	30	
Dibromochloromethane	ug/L	1.0 U	20	20	18.6	17.7	93	89	52-129	5	30	
Diisopropyl ether	ug/L	1.0 U	20	20	18.1	18.3	90	92	43-134	1	30	
Ethyl-tert-butyl ether	ug/L	1.0 U	20	20	19.9	19.8	100	99	43-142	1	30	
Ethylbenzene	ug/L	1.0 U	20	20	17.9	18.0	89	90	70-120	1	30	
m&p-Xylene	ug/L	2.0 U	40	40	36.6	36.0	91	90	70-123	2	30	
Methyl-tert-butyl ether	ug/L	1.0 U	20	20	15.1	15.1	76	75	63-143	0	30	
Methylene Chloride	ug/L	1.0 U	20	20	17.9	17.3	89	87	38-134	3	30	
Naphthalene	ug/L	2.0 U	20	20	14.4	14.8	72	74	55-122	3	30	
o-Xylene	ug/L	1.0 U	20	20	18.1	17.7	91	89	68-122	2	30	
Styrene	ug/L	1.0 U	20	20	18.3	17.9	91	90	49-135	2	30	
tert-Amylmethyl ether	ug/L	1.0 U	20	20	12.6	12.5	63	62	49-110	1	30	
tert-Butyl Alcohol	ug/L	5.0 U	100	100	66.5	65.8	67	66	20-168	1	30	
Tetrachloroethene	ug/L	1.0 U	20	20	19.0	18.3	95	91	53-125	4	30	
Toluene	ug/L	1.0 U	20	20	18.5	18.1	92	91	66-124	2	30	
trans-1,2-Dichloroethene	ug/L	1.0 U	20	20	17.5	16.7	88	83	52-136	5	30	
trans-1,3-Dichloropropene	ug/L	1.0 U	20	20	15.7	14.6	79	73	54-118	8	30	
Trichloroethene	ug/L	1.0 U	20	20	18.5	17.7	93	88	50-127	5	30	
Vinyl chloride	ug/L	1.0 U	20	20	20.0	20.4	100	102	54-149	2	30	
Xylene (Total)	ug/L	3.0 U	60	60	54.7	53.7	91	90	68-123	2	30	
1,2-Dichloroethane-d4 (S)	%						81	78	77-126			
4-Bromofluorobenzene (S)	%						98	100	81-119			
Dibromofluoromethane (S)	%						100	96	70-130			
Toluene-d8 (S)	%						107	106	84-115			

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REPORT OF LABORATORY ANALYSIS

QUALIFIERS

Project: 20025
Pace Project No.: 30194224

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 20025
Pace Project No.: 30194224

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30194224001	**RW-11D(262-267)-082316 (200250**	EPA 8260B	231377		
30194224002	**PMP-AS-180-082316(200250002)**	EPA 8260B	231377		
30194224003	**PMP-AS-230-082316(200250003)**	EPA 8260B	231377		
30194224004	**RW-3DD(175-180)-082316 (200250**	EPA 8260B	231377		

CHAIN-OF-CUSTODY RECORD

Pace Analytical

Phone: (412) 826-5245 Pace Analytical Energy Services, LLC - 220 William Pitt Way - Pittsburgh, PA 15238 Fax: (412) 826-3433

SEND TO: Pace DUE DATE: 9/2/2016

Results to: ruth.welsh@pacelabs.com
mark.mikesell@pacelabs.com

Invoice to: ruth.welsh@pacelabs.com

Lab Proj. # 20025

Company: Pace Analytical Energy Services, LLC
Co. Address: 220 William Pitt Way, Pittsburgh, PA 15238
Phone #: 412-826-5245
Fax #: 412-826-3433

State of Origin: NJ

Preservatives
1 -Unpreserved 4-HCL
2- H2SO4 5-NaOH+Zn Ace.
3- HNO3

Sample ID	Sample Type: Water	Sample Type: Solid	Date	Time	# Bottles	Preservatives	Parameters Requested: 8260 volatiles + oxygenates	Remarks:
RW-11D(262-267)-082316 (200250001)	X		8/23/16	9:05	3	4	X	Profile 5553 001
PMP-AS-180-082316(200250002)	X		8/23/16	10:25	3	4	X	002
PMP-AS-230-082316(200250003)	X		8/23/16	13:25	3	4	X	003
RW-3DD(175-180)-082316 (200250004)	X		8/23/16	13:25	3	4	X	004

WO#:30194224

30194224

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
RW Welsh	PAES	8-25-16	1300		Pace	8-25-16	2:30
	Pace	8-25-16	4:30		Pace	8-25-16	1630
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Microseeps Project # ~~30194224~~

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used 8 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 3.6 °C Correction Factor: +0.1 °C Final Temp: 3.7 °C

Temp should be above freezing to 6°C

4.3
4.1
4.0
4.2

Date and Initials of person examining contents: NJV 8-25-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:		X		4.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WT	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:	X			8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:	X			
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.			X	13.
All containers needing preservation are found to be in compliance with EPA recommendation.			X	
exceptions: (VOA), coliform, TOC, O&G, Phenolics				Initial when completed NJV Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):		X		14.
Trip Blank Present:			X	15.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr			X	Initial when completed: NJV Date: 8-25-16

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

ATTACHMENT D

DATA VALIDATION REPORTS (ON COMPACT DISC)

E-Mail Date: 2016-10-02
E-Mail To: tim.roeper@cornerstoneeg.com
cc:

U.S. Mail: Tim Roeper
Cornerstone Environmental Group
100 Crystal Run Road, Suite 101
Middletown, NY 10941

ANALYTICAL DATA VALIDATION REPORT
Ringwood Mines/Landfill
Ford Motor Company
PROJECT 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED August 23, 2016
DATA PACKAGE RECEIVED September 9, 2016
SUBMITTAL #: 460-119092-1

PREPARED BY:
CADENA, INC.
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Date: 2016-10-02
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LISTS OF APPNEDICES
(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by TestAmerica-Edison Laboratory the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	GCMS VOC	GCMS VOC SIM	OSW-SVOC	GCMS SVOC SIM	OSW-PCB	Dissolved Metals by ICP MS	Total Metals by ICP MS	Mercury (Manual Cold Vapor) (D)	Mercury (Manual Cold Vapor) (T)	TOTAL CYANIDE	Sulfate Chloride by IC	Alkalinity
4601190921	RW-11D(262-267)-082316	8/23/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601190922	PMP-AS-180-082316	8/23/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601190923	PMP-AS-50-082316	8/23/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601190924	PMP-AS-230-082316	8/23/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601190925	RW-11S(236-241)-082316	8/23/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601190926	RW-3DD(175-180)-082316	8/23/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601190927	RW-3DS(155-160)-082316	8/23/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601190928	TB-06-082316	8/23/2016	X	X										

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	*Reference Method*	*Analyte Listing*
GCMS VOC Organics	OSW-8260C	Target Compound List
GCMS VOC Organics-SIM	OSW-8260C-SIM	1,2-Dibromo-3-chloropropane and EDB
Semi-Volatile Organics	OSW-8270D	Target Compound List
Semi-Volatile Organics	OSW-8270D/SIM	PAH, PCP, HCB, B2CEE
GC ECD Semi-Volatiles	OSW-8082A	PCB's
Metals by ICP/MS	OSW-6020A	Target Analyte List(total,dissolved)
Mercury by Cold Vapor	OSW-7470A	Mercury(total, dissolved)
Total Cyanide	OSW-9012B	Total Cyanide
Ion Chromatography	OSW-9056A	Chloride, Sulfate
Alkalinity	APHA-2320B	Alkalinity, Bicarbonate Alkalinity

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality

	assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

Additional data qualifications based on review of the level 4 data package using laboratory criteria provided if required are noted below. Qualifications that would be required based on comparison to NFG criteria are noted where applicable. These qualifications would be added to the database and associated summary tables in the appendices if applicable.

ALLTESTING PARAMETERS

GC/MS SVOC SIM

CCV outliers in analytical batch 388049 and 388356 CCV response outliers were low and outside the specified criteria for PENTACHLOROPHENOL Client sample results (samples -001, -002, -003, -004, -005, -006, -007) for this analytes should be considered to be estimated and qualified with a UJ flags if non-detect.

The following observations **DID NOT** result in qualification but were noted during the validation review:

GC/MS VOC

CCV outliers in analytical batch 386844 CCV were high and outside the specified criteria for TRICHLOROFLUOROMETHANE AND DICHLOROFLUOROMETHANE. Associated client results were non-detect so qualification was not required based on the high bias QC outliers.

GCMS VOC QC did not include MS/MSD recovery data.

ALL PARAMETERS

Certificates of analysis for standards and all working/primary standard concentrations that are required to verify calibration standard concentrations and spike levels were not available in the laboratory data package for review.

GC/MS SVOC, VOC SIM, SVOC SIM, and PCB

Initial Calibration Verification (ICV) raw data was not available for reconstruction/re-calculation of ICV results.

GC/MS SVOC

CCV outliers in analytical batch 387551 were high and outside the specified criteria for N-NITROSO-DI-N-PROPYLAMINE and 4-CHLORO-3-METHYLPHENOL. Associated client results were non-detect so qualification was not required based on the high bias QC outliers.

PCB

Sample -001 and -007 surrogate recoveries associated with p flags for difference between primary and confirmatory column results greater than 40% did not result in qualification for client sample data.

METALS

Sample -006 Post Digestion Spike (PDS) recovery outside of method criteria for dissolved silver did not result in qualification for client sample data.

VERIFICATION SUMMARY

The following qualifications and associated data flags were applied based on the initial level 2 review of this data package.

TBK - GCMS VOC TRIP blanks had detections above the RL for the following analytes: ACETONE. The following client sample results should be considered to be non-detect at the concentration reported and qualified with B flags: ACETONE - samples -001, -005, -006, -007. NOTE: Sample dilution factors are not included when assigning qualification based on trip blank detections.

TIC - GCMS VOC Tentatively Identified Compounds (TIC's) detected results should be considered to be estimated and qualified with NJ flags.

LCS - GCMS SVOC QC prep batch 387311 and QC prep batch 387196 LCS recoveries were outliers biased low for the following analytes: 2-METHYLPHENOL, CAPROLACTAM, HEXACHLOROBUTADIENE, HEXACHLOROBENZENE, 1,2,4,5-TETRACHLOROBENZENE, HEXACHLOROCYCLOPENTADIENE. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: 2-METHYLPHENOL - samples -001, -002, -003, -004, -005, -006, -007; CAPROLACTAM, HEXACHLOROBUTADIENE, HEXACHLOROBENZENE, HEXACHLOROCYCLOPENTADIENE, 1,2,4,5-TETRACHLOROBENZENE - samples -001, -002, -003, -004, -005, -007.

MBK - GCMS SVOC QC batch 387196 method blanks had detections below the RL for the following analytes: BIS-2-ETHYLHEXYLPHTHALATE, DI-N-BUTYLPHTHALATE. The following client sample results should be considered to be non-detect at the RL and qualified with UB flags: BIS-2-ETHYLHEXYLPHTHALATE - samples -001, -003, -004, -007; DI-N-BUTYLPHTHALATE - samples -001, -002, -003, -004, -005, -007. The following client sample results should be considered to be non-detect at the concentration reported and qualified with B flags: BIS-2-ETHYLHEXYLPHTHALATE - samples -002, -005.

MSD - METALS sample -001 MS recovery outliers (NO MSD FOR THIS BATCH) were outliers with the recovery biased low for the following analytes: SILVER, ANTIMONY, SELENIUM. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

GCMS SVOC QC prep batch 387311 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

PCB QC batch 386833 LCS recoveries were outliers biased high for the following analytes: AROCLOR 1260. Associated client sample results were non-detect so qualification was not required based on these high bias QC outliers

METALS QC batch 387371 method blanks had detections below the RL for the following analytes: CALCIUM. Qualification of client sample results was not required based on these method blank detections.

METALS QC batch 387370 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

METALS sample -001 MS and or MSD recovery outliers were not used to qualify results for BARIUM, ALUMINUM, POTASSIUM, CALCIUM, SODIUM due to high levels of these target analytes in the original sample relative to the spike concentration (4X rule).

CYANIDE sample -003 MS or MSD recoveries but not both or RPD only were outliers so client sample results were not qualified based on these QC outliers alone.

2.0 VOLATILE ORGANIC COMPOUNDS (VOCs) – METHOD SW846 8260C and SIM ANALYSIS

See Attachments for submittal-specific review summary of QC requirements noted below.
The target analyte list was defined by the client-project as TCL List OLM4.2 for 8260C full scan and as noted in section 1 above for SIM analysis.

2.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) VOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS VOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS VOCs

Initial calibration data for VOCs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS VOCs

Initial calibration data for VOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary..

2.2 CONTINUING CALIBRATION – GC/MS VOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless otherwise noted in the executive summary noted above and qualified in the data tables. Target analytes associated with CCV compounds outside of method criteria were qualified as estimated with J flags if sample results were non-detect and estimated with UJ flags if CCV bias was low and sample results was non-detect and J flags if sample results were detections. Non-detect results were not qualified if CCV bias was high and sample results were non-detect.

2.3 INTERNAL STANDARDS – GC/MS VOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS VOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS VOCs

A laboratory control sample (LCS) was prepared and analyzed for VOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless otherwise noted in the executive summary and as qualified the QAR and ARS data tables found in the appendices.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS VOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS VOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS VOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS VOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS VOCs

Tentatively Identified Compounds (TIC) searches were associated with each sample analysis and should all be considered to be estimated and qualified with NJ flags when detected.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS VOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D and SIM analysis – GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

3.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

3.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

3.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

3.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

3.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

3.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

3.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) was prepared and analyzed for the target analyte SVOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

3.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

3.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

3.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

3.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

3.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

3.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal..

4.0 POLYCHLORINATED BIPHENYLS (PCBs) – METHOD SW846 8082A

The target analyte list was defined by the client as the standard 7 aroclors.

4.1 CALIBRATION – GAS CHROMATOGRAPH-ECD

4.1.1 TUNING AND MASS CALIBRATION – PCB

Not applicable for this analysis.

4.1.2 INITIAL CALIBRATION – PCB

Initial calibration data for PCBs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

4.1.3 INITIAL CALIBRATION VERIFICATION – PCB

Initial calibration verification (ICV) standards for PCB analyses were reviewed and met criteria specified by the laboratory with no exceptions.

4.2 CONTINUING CALIBRATION – PCBs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary.

4.3 INTERNAL STANDARDS – PCB

Internal standard (IS) data were reviewed and met criteria unless noted otherwise in verification/validation summary. (NOTE: Lab quantitation approach DID use internal standard quantitation for this submittal).

4.4 SURROGATE SPIKE RECOVERIES – PCB

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

4.5 LABORATORY CONTROL SAMPLE ANALYSES - PCB

A laboratory control sample (LCS) was prepared and analyzed for PCBs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary..

4.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - PCB

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

CADENA does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

4.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - PCB

There were no field duplicate comparisons performed as part of this validation request.

4.8 EXTRACT CLEANUP - PCB

Extract cleanups were performed in accordance with laboratory SOP's and as noted in level 4 data package prep logs.

4.9 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - PCB

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

4.10 TENTATIVELY IDENTIFIED COMPOUNDS - PCB

Not requested for this analytical procedure.

4.11 BLANKS – METHOD/FIELD/CALIBRATION - PCB

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

5.0 HPLC/IC – METHOD SW846 9056A – CHLORIDE AND SULFATE

5.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

5.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

5.3 CONTINUTING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

5.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

5.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD’s were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

5.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

5.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

5.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

6.0 METALS – ICPMS by Method 6020A TOTAL AND DISSOLVED and Mercury by Method 7470A

The following samples provided in this SDG underwent a Level IV review for either/and metals or mercury analyses:

- Method 6020A: ALL
- Method 7470A: ALL

6.1 ICP/MS TUNING AND MASS CALIBRATION

Instrument tuning data were reviewed. Tuning elements were analyzed. All tuning criteria were met for the analyses, indicating proper optimization of the instrumentation.

6.2 INITIAL CALIBRATION

Initial calibration data for metals and mercury were reviewed and met the criteria for linearity of response without exception.

6.3 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards for metals and mercury analyses were reviewed and met criteria unless otherwise noted in verification/validation summary section of this document.

An initial calibration blank (ICB) was analyzed for metals and mercury analyses. Metals and mercury were reported as non-detect in each ICB analysis unless noted otherwise in verification/validation summary.

6.4 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for metals and mercury analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

6.5 INTERFERENCE CHECK STANDARD

The interference check standard results were reviewed and found to meet criteria.

6.6 INTERNAL STANDARDS

Internal standard (IS) data were reviewed and found to meet criteria unless noted otherwise in verification/validation summary.

6.7 LABORATORY CONTROL SAMPLE ANALYSIS

A laboratory control sample (LCS) was prepared and analyzed for metals and mercury. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

6.8 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE (MS/MSD) ANALYSES

The MS/MSD recoveries and RPD's were either not performed using a client sample or were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

6.9 CONTRACT REQUIRED DETECTION LIMIT STANDARD ANALYSES

Each contract required detection limit (CRDL) standard was analyzed at the proper frequency and were within laboratory control limits unless noted otherwise in verification/validation summary.

6.10 ICP SERIAL DILUTION

Serial dilutions were analyzed at the proper frequency and were either not performed using the client sample or were within laboratory control limits unless noted otherwise in verification/validation summary.

6.11 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

6.12 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

6.13 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

7.0 GENERAL CHEMISTRY- TOTAL AND AMENABLE CYANIDE AND ALKALINITY – METHODS 9012B and 2320B

7.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

7.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

7.3 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

7.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

7.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD’s were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

7.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

7.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

7.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

8.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

8.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

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All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	***Reference Method***	***Matrix***	***Preservation & Storage***	***Holding Times***
Volatile Organics by GCMS	OSW-8260C/SIM	Water	Acidify ph<2 Refrigeration 0-6oC	14 days
Semivolatile Organics by GCMS	OSW-8270D/SIM	Water	Refrigeration 0-6oC	7 days Extraction 40 days Analysis
Polychlorinated Biphenyls by GC/ECD	OSW-8082A	Water	Refrigeration 0-6oC	365 days - Extraction - Analysis
Metals by ICP/ICPMS Spectroscopy	OSW-6010B OSW-6020A	Water	Acidify pH<2 Refrigeration 0-6oC	180 days
Mercury in Aqueous Waste	OSW-7470A	Water	Acidify pH<2 Refrigeration 0-6oC	28 days
Alkalinity	EPA 2320B	Water	Refrigeration 0-6oC	14 days
Chloride and Sulfate	OSW-9056A	Water	Refrigeration 0-6oC	28 days
Total and Amenable Cyanide	OSW-9012B	Water	Test for presence of Sulfide – if unknown collect two samples and treat one with Lead Carbonate. Then adjust sample to pH of greater than or equal to 12with NaOH. Refrigeration at 0-4C –(also may require treatment for aldehydes and chlorine/hypochlorite/sulfite)	14 days if preserved. 24 hours or sooner if unpreserved

8.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

9.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

10.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: TestAmerica-Edison
Laboratory Submittal: 119092-1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS VOC Volatiles	GCMS VOC SIM	OSW-8270D	GCMS SVOC SIM	OSW-8082A	Metals by ICP Mass Spectroscopy(D)
4601190921	RW-11D(262-267)-082316	8/23/2016	9:05:00	X	X	X	X	X	X
4601190922	PMP-AS-180-082316	8/23/2016	10:25:00	X	X	X	X	X	X
4601190923	PMP-AS-50-082316	8/23/2016	9:10:00	X	X	X	X	X	X
4601190924	PMP-AS-230-082316	8/23/2016	1:25:00	X	X	X	X	X	X
4601190925	RW-11S(236-241)-082316	8/23/2016	12:15:00	X	X	X	X	X	X
4601190926	RW-3DD(175-180)-082316	8/23/2016	1:25:00	X	X	X	X	X	X
4601190927	RW-3DS(155-160)-082316	8/23/2016	3:00:00	X	X	X	X	X	X
4601190928	TB-06-082316	8/23/2016	12:00:00	X	X				

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	Metals by ICP Mass Spectroscopy	Mercury (Manual) Cold Vapor)(D)	Mercury (Manual) Cold Vapor)	TOTAL AND AMENABLE CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Anions by IC	Alkalinity Prep	Comment
4601190921	RW-11D(262-267)-082316	8/23/2016	9:05:00	X	X	X	X	X	X	
4601190922	PMP-AS-180-082316	8/23/2016	10:25:00	X	X	X	X	X	X	
4601190923	PMP-AS-50-082316	8/23/2016	9:10:00	X	X	X	X	X	X	
4601190924	PMP-AS-230-082316	8/23/2016	1:25:00	X	X	X	X	X	X	
4601190925	RW-11S(236-241)-082316	8/23/2016	12:15:00	X	X	X	X	X	X	
4601190926	RW-3DD(175-180)-082316	8/23/2016	1:25:00	X	X	X	X	X	X	
4601190927	RW-3DS(155-160)-082316	8/23/2016	3:00:00	X	X	X	X	X	X	
4601190928	TB-06-082316	8/23/2016	12:00:00							

APPENDIX 2

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

Standard Report Cover page
Table of Contents
SDG Case Narrative
Sample Summary
Executive Summary detection highlights
Method Summary
Method/Analyst Summary
Analytical Results
Surrogate Summary
Quality Control Results
Data Qualifiers
QC Summary Association
Lab Chronicle
GCMS Volatiles Data - Method 8260C and SIM
- QC Summary Data
  - Surrogate recoveries (form II)
  - Check Sample recoveries (form III)
  - Matrix spike/Matrix spike duplicate report (form III)
  - Method blank report (form IV)
  - Tuning and mass calibrations (form V)
  - Internal Standard and RT area summary (form VIII)
- Sample Data
  - GCMS VOA Organics Analysis Data Sheet (Form I)
  - Raw integration data from instrument
  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report (Form VII)
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not included with SIM package)
  - FORM I - QC data
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
  - MS and MSD integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Run logs

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
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NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

GCMS Semivolatiles Data - Method 8270D and SIM

- QC Summary Data
  - Surrogate recoveries (form II)
  - Check Sample recoveries (form III)
  - Method blank report (form IV)
  - Tuning and mass calibrations (form V) (not applicable for SIM)
  - Internal Standard and RT area summary (form VIII)
- Sample Data
  - GCMS VOA Organics Analysis Data Sheet (Form I)
  - Raw integration data from instrument
  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not applicable for SIM)
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Instrument run logs
  - Extraction bench sheets

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

- Polychlorinated Biphenyls Data (PCB)
  - QC Summary data
    - Surrogate recoveries (form II)
    - Check Sample Recovery data (form III)
    - Method Blank data (form IV)
    - Analytical sequence with RT check (Form VIII)
    - Identification Summary (Form X)
  - Sample Data
    - Organics Analysis Data Sheet (Form I)
    - Raw integration data from instrument
    - Chromatogram
  - Standards Data (both columns)
    - Initial Calibration Data External Standard RT Summary (Form VI)
    - Initial Calibration Data Summary with average RF
    - Raw integration data from instrument with manual integrations where applicable
    - ICAL chromatograms
    - Continuing Calibration Data (Form VII) with RT Summaries
    - ICV raw integration and chromatograms
    - CCV raw integration data from instrument
    - CCV chromatogram
  - Raw QC Data
    - LCS/LCSD sample data report and integration and chromatograms
    - Method blank integration and chromatograms
  - Miscellaneous Data
    - Sequence table (run log)
    - PCB Batch Worksheet
- HPLC/IC - 9056A ORGFM_28D - Anions, Ion Chromatography - Sulfate and Chloride
  - Raw Data and Data Summaries for:
    - LCS/LCSD (form III)
    - MS/MSD (form III)
    - METHOD BLANKS (Form IV)
    - SAMPLE DATA (Form I)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - ICAL (Form VI)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - ICAL (Form VII)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - QC DATA (Form I)
      - Raw instrument data and chromatography
    - Analysis Run Logs

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

METALS DATA (ICPMS and mercury)
- Forms Data
  - Cover Page
  - Inorganic Analysis Data Sheet - Metals Dissolved/Total Recoverable (1A-IN)
  - CCV standard report - mercury and ICPMS (2A-IN)
  - CRQL report - mercury and ICPMS (2B-IN)
  - ICB report - mercury and ICPMS (3-IN)
  - Method blank report (3-IN)
  - Interference check standard A - ICPMS (4A-IN)
  - Interference check standard AB - ICPMS (4A-IN)
  - MS/MSD Sample recovery (5A-IN)
  - PDS Summary (5B-IN)
  - LCS Recovery form (7A-IN)
  - LCS Duplicate Recover (7D-IN)
  - ICP-MS Serial Dilutions (8-IN)
  - Detection Limits Form (9-IN)
  - Linear dynamic ranges - ICPMS (11-IN)
  - Prep log - mercury and ICPMS (12-IN)
  - Run log - ICPMS and Mercury (13-IN)
  - ICP-MS TUNE (14-IN)
  - ICPMS Internal Standards Relative Intensity Summary (15-IN)
- Instrument Printouts
  - ICP-MS Raw instrument data
  - Mercury raw instrument data, run logs and calibrations
- Miscellaneous Data
  - Metals Batch Worksheet

GENERAL CHEMISTRY - Total and Amenable Cyanide and Alkalinity
- Cover Page
- Raw Data and Data Summaries for:
  - Sample Data (Form 1B-IN)
  - CCV/CCB (Form 2-IN)
  - METHOD BLANKS (Form 3-IN)
  - MATRIX SPIKES (Form 5-IN)
  - Sample DUPLICATES (Form 6-IN)
  - LCS/LCSD (Form 7-IN)
  - Detection Limits Form (9-IN)
  - Prep log (12-IN)
  - Analysis Run Logs (13-IN)
  - Raw Data - instrument sample sequence and calibration curve
  - Alkalinity Reagents
  - Alkalinity pH meter calibration
  - Alkalinity sequence log and raw data
  - General Chemistry Batch Worksheets

Shipping and Receiving Documents
- COC forms
- Cooler Receipt Form, checklist and narrative

APPENDIX 3

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119092-1

		Sample Name:	RW-11D(262-267)-082316				PMP-AS-180-082316				PMP-AS-50-082316			
		Lab Sample ID:	4601190921				4601190922				4601190923			
		Sample Date:	8/23/2016				8/23/2016				8/23/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	0.64	1.0	ug/l	J	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	0.83	1.0	ug/l	J	0.67	1.0	ug/l	J	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	8.2	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	46	5.0	ug/l	B	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	6.4	1.0	ug/l	---	5.9	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	12	1.0	ug/l	---	0.24	1.0	ug/l	J	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	4.6	1.0	ug/l	---	1.5	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	8.6	1.0	ug/l	---	44	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	0.31	1.0	ug/l	J	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	0.31	1.0	ug/l	J	1.4	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Indane - TIC	496-11-7												
Isopropylbenzene	98-82-8	1.2	1.0	ug/l	---	1.6	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	0.47	1.0	ug/l	J	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	0.28	1.0	ug/l	J	0.25	1.0	ug/l	J	0.46	1.0	ug/l	J
Naphthalene - TIC	91-20-3												
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---

		Sample Name:	RW-11D(262-267)-082316				PMP-AS-180-082316				PMP-AS-50-082316			
		Lab Sample ID:	4601190921				4601190922				4601190923			
		Sample Date:	8/23/2016				8/23/2016				8/23/2016			
				Report		Valid		Report		Valid		Report		Valid
	Analyte	Cas No.	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier
	Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Toluene	108-88-3	0.28	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Unknown - TIC	Tic1	7.4	---	ug/l	NJ								
	Vinyl chloride	75-01-4	ND	1.0	ug/l	---	0.12	1.0	ug/l	J	ND	1.0	ug/l	---
	Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	1.0	2.0	ug/l	J	ND	2.0	ug/l	---
GC/MS SVOC														
	OSW-8260CSIM													
	1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
	1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
	Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
	OSW-8270D													
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	20	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	20	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	20	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	1.5	2.1	ug/l	UB	2.2	2.0	ug/l	B	1.5	2.1	ug/l	UB

		Sample Name:	RW-11D(262-267)-082316				PMP-AS-180-082316				PMP-AS-50-082316			
		Lab Sample ID:	4601190921				4601190922				4601190923			
		Sample Date:	8/23/2016				8/23/2016				8/23/2016			
				Report		Valid		Report		Valid		Report		Valid
Analyte	Cas No.		Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier
Butyl benzyl phthalate	85-68-7		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Caprolactam	105-60-2		ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
Carbazole	86-74-8		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Chrysene	218-01-9		ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.1	ug/l	---
Di-n-butyl phthalate	84-74-2		1.3	10	ug/l	UB	1.7	10	ug/l	UB	1.5	10	ug/l	UB
Di-n-octyl phthalate	117-84-0		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Dibenzofuran	132-64-9		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Diethyl phthalate	84-66-2		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Dimethyl phthalate	131-11-3		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Fluoranthene	206-44-0		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Fluorene	86-73-7		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Hexachlorobutadiene	87-68-3		ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Hexachlorocyclopentadiene	77-47-4		ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
Hexachloroethane	67-72-1		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isophorone	78-59-1		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
N-Nitrosodi-n-propylamine	621-64-7		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
N-Nitrosodiphenylamine	86-30-6		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Naphthalene	91-20-3		ND	10	ug/l	---	1.4	10	ug/l	J	ND	10	ug/l	---
Nitrobenzene	98-95-3		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Phenanthrene	85-01-8		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Phenol	108-95-2		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Pyrene	129-00-0		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
Benzo[a]anthracene	56-55-3		ND	0.052	ug/l	---	ND	0.050	ug/l	---	ND	0.052	ug/l	---
Benzo[a]pyrene	50-32-8		ND	0.052	ug/l	---	ND	0.050	ug/l	---	ND	0.052	ug/l	---
Benzo[b]fluoranthene	205-99-2		ND	0.052	ug/l	---	ND	0.050	ug/l	---	ND	0.052	ug/l	---
Bis(2-chloroethyl)ether	111-44-4		ND	0.021	ug/l	---	ND	0.020	ug/l	---	ND	0.021	ug/l	---
Dibenz(a,h)anthracene	53-70-3		ND	0.052	ug/l	---	ND	0.050	ug/l	---	ND	0.052	ug/l	---
Hexachlorobenzene	118-74-1		ND	0.021	ug/l	UJ	ND	0.020	ug/l	UJ	ND	0.021	ug/l	UJ
Indeno[1,2,3-cd]pyrene	193-39-5		ND	0.052	ug/l	---	ND	0.050	ug/l	---	ND	0.052	ug/l	---
Pentachlorophenol	87-86-5		ND	0.21	ug/l	UJ	ND	0.20	ug/l	UJ	ND	0.21	ug/l	UJ
GC Other														
OSW-8082A														
PCB-1016	12674-11-2		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
PCB-1221	11104-28-2		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
PCB-1232	11141-16-5		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
PCB-1242	53469-21-9		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
PCB-1248	12672-29-6		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
PCB-1254	11097-69-1		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
PCB-1260	11096-82-5		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
PCB-1262	37324-23-5		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
PCB-1268	11100-14-4		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Polychlorinated biphenyls, Total	1336-36-3		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---

		Sample Name:	RW-11D(262-267)-082316				PMP-AS-180-082316				PMP-AS-50-082316			
		Lab Sample ID:	4601190921				4601190922				4601190923			
		Sample Date:	8/23/2016				8/23/2016				8/23/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	9100	40.0	ug/l	---	32.5	40.0	ug/l	J	80.0	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	8170	40.0	ug/l	---	ND	40.0	ug/l	---	28.4	40.0	ug/l	J
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	UJ	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	0.88	2.0	ug/l	J	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	0.92	2.0	ug/l	J	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	233	4.0	ug/l	---	457	4.0	ug/l	---	10.1	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	238	4.0	ug/l	---	305	4.0	ug/l	---	9.4	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	200000	200	ug/l	---	48100	200	ug/l	---	6650	200	ug/l	---
	Calcium - Dissolved	7440-70-2	183000	200	ug/l	---	45300	200	ug/l	---	6290	200	ug/l	---
	Chromium	7440-47-3	4.3	4.0	ug/l	---	3.2	4.0	ug/l	J	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	ND	4.0	ug/l	---	1.8	4.0	ug/l	J	2.7	4.0	ug/l	J
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	2.2	4.0	ug/l	J
	Iron	7439-89-6	127	120	ug/l	---	89600	120	ug/l	---	176	120	ug/l	---
	Iron - Dissolved	7439-89-6	ND	120	ug/l	---	19400	120	ug/l	---	80.5	120	ug/l	J
	Lead	7439-92-1	ND	1.2	ug/l	---	131	1.2	ug/l	---	1.7	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	0.44	1.2	ug/l	J
	Magnesium	7439-95-4	ND	200	ug/l	---	4730	200	ug/l	---	1610	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	ND	200	ug/l	---	4410	200	ug/l	---	1670	200	ug/l	---
	Manganese	7439-96-5	6.8	8.0	ug/l	J	955	8.0	ug/l	---	4.8	8.0	ug/l	J
	Manganese - Dissolved	7439-96-5	ND	8.0	ug/l	---	826	8.0	ug/l	---	4.1	8.0	ug/l	J
	Nickel	7440-02-0	11.9	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	9.4	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	52500	200	ug/l	---	2170	200	ug/l	---	587	200	ug/l	---
	Potassium - Dissolved	7440-09-7	51300	200	ug/l	---	2040	200	ug/l	---	581	200	ug/l	---
	Selenium	7782-49-2	1.3	10.0	ug/l	J	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	1.4	10.0	ug/l	J	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	UJ	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	184000	200	ug/l	---	5750	200	ug/l	---	2510	200	ug/l	---
	Sodium - Dissolved	7440-23-5	187000	200	ug/l	---	5760	200	ug/l	---	2730	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	6.2	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	3090	160	ug/l	---	405	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	1500	40.0	ug/l	---	428	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---

		Sample Name:	RW-11D(262-267)-082316				PMP-AS-180-082316				PMP-AS-50-082316			
		Lab Sample ID:	4601190921				4601190922				4601190923			
		Sample Date:	8/23/2016				8/23/2016				8/23/2016			
				Report		Valid		Report		Valid		Report		Valid
Analyte		Cas No.	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	56.8	2.40	mg/l	---	2.66	0.24	mg/l	---	1.32	0.12	mg/l	---
	Sulfate	14808-79-8	2.01	0.60	mg/l	---	1.22	0.60	mg/l	---	7.30	0.60	mg/l	---
Prep														
	APHA-2320B													
	Alkalinity	E-14506	900	10.0	mg/l	---	173	5.0	mg/l	---	34.2	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	ND	10.0	mg/l	---	173	5.0	mg/l	---	ND	5.0	mg/l	---

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119092-1

		Sample Name:	PMP-AS-230-082316				RW-11S(236-241)-082316				RW-3DD(175-180)-082316				RW-3DS(155-160)-082316				TB-06-082316			
		Lab Sample ID:	4601190924				4601190925				4601190926				4601190927				4601190928			
		Sample Date:	8/23/2016				8/23/2016				8/23/2016				8/23/2016				8/23/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC																					
OSW-8260C																					
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	2.2	1.0	ug/l	---	2.2	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	0.66	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	0.33	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	2.7	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	7.7	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	3.6	5.0	ug/l	J	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	10	5.0	ug/l	B	13	5.0	ug/l	B	11	5.0	ug/l	B	7.9	5.0	ug/l	---
Benzene	71-43-2	29	1.0	ug/l	---	ND	1.0	ug/l	---	0.26	1.0	ug/l	J	0.13	1.0	ug/l	J	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	2.5	1.0	ug/l	---	6.5	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	20	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	17	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	3.5	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.31	1.0	ug/l	J	ND	1.0	ug/l	---
Indane - TIC	496-11-7	5.7	---	ug/l	NJ																
Isopropylbenzene	98-82-8	13	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	0.73	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	0.81	1.0	ug/l	J	0.63	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Naphthalene - TIC	91-20-3	5.4	---	ug/l	NJ																
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---

		Sample Name:	PMP-AS-230-082316				RW-11S(236-241)-082316				RW-3DD(175-180)-082316				RW-3DS(155-160)-082316				TB-06-082316			
		Lab Sample ID:	4601190924				4601190925				4601190926				4601190927				4601190928			
		Sample Date:	8/23/2016				8/23/2016				8/23/2016				8/23/2016				8/23/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
	Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Toluene	108-88-3	0.28	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.67	1.0	ug/l	J	ND	1.0	ug/l	---
	trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Unknown - TIC	Tic1																				
	Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Xylenes, Total	1330-20-7	1.1	2.0	ug/l	J	ND	2.0	ug/l	---	ND	2.0	ug/l	---	0.58	2.0	ug/l	J	ND	2.0	ug/l	---
GC/MS SVOC																						
	OSW-8260CSIM																					
	1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
	1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
	Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
	OSW-8270D																					
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	---	ND	10	ug/l	UJ				
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	2,4-Dinitrophenol	51-28-5	ND	20	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---				
	2,4-Dinitrotoluene	121-14-2	ND	2.0	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---				
	2,6-Dinitrotoluene	606-20-2	ND	2.0	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---				
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	---	ND	10	ug/l	UJ				
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	4,6-Dinitro-2-methylphenol	534-52-1	ND	20	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---				
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	4-Nitrophenol	100-02-7	ND	20	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---				
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	Atrazine	1912-24-9	ND	2.0	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---				
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---				
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
	Bis(2-ethylhexyl) phthalate	117-81-7	1.5	2.0	ug/l	UB	2.8	2.1	ug/l	B	0.96	2.1	ug/l	J	1.8	2.1	ug/l	UB				

		Sample Name:	PMP-AS-230-082316				RW-11S(236-241)-082316				RW-3DD(175-180)-082316				RW-3DS(155-160)-082316				TB-06-082316			
		Lab Sample ID:	4601190924				4601190925				4601190926				4601190927				4601190928			
		Sample Date:	8/23/2016				8/23/2016				8/23/2016				8/23/2016				8/23/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
Butyl benzyl phthalate	85-68-7		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
Caprolactam	105-60-2		ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	---	ND	10	ug/l	UJ				
Carbazole	86-74-8		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
Chrysene	218-01-9		ND	2.0	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---				
Di-n-butyl phthalate	84-74-2		1.7	10	ug/l	UB	2.4	10	ug/l	UB	ND	10	ug/l	---	1.7	10	ug/l	UB				
Di-n-octyl phthalate	117-84-0		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
Dibenzofuran	132-64-9		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
Diethyl phthalate	84-66-2		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
Dimethyl phthalate	131-11-3		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
Fluoranthene	206-44-0		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
Fluorene	86-73-7		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
Hexachlorobutadiene	87-68-3		ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	---	ND	1.0	ug/l	UJ				
Hexachlorocyclopentadiene	77-47-4		ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	---	ND	10	ug/l	UJ				
Hexachloroethane	67-72-1		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---				
Isophorone	78-59-1		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
N-Nitrosodi-n-propylamine	621-64-7		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---				
N-Nitrosodiphenylamine	86-30-6		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
Naphthalene	91-20-3		5.7	10	ug/l	J	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
Nitrobenzene	98-95-3		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---				
Phenanthrene	85-01-8		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
Phenol	108-95-2		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
Pyrene	129-00-0		ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---				
OSW-8270DSIM																						
Benzo[a]anthracene	56-55-3		ND	0.050	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---				
Benzo[a]pyrene	50-32-8		ND	0.050	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---				
Benzo[b]fluoranthene	205-99-2		ND	0.050	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---				
Bis(2-chloroethyl)ether	111-44-4		ND	0.020	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---				
Dibenz(a,h)anthracene	53-70-3		ND	0.050	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---				
Hexachlorobenzene	118-74-1		ND	0.020	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	---	ND	0.021	ug/l	UJ				
Indeno[1,2,3-cd]pyrene	193-39-5		ND	0.050	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---				
Pentachlorophenol	87-86-5		ND	0.20	ug/l	UJ	ND	0.21	ug/l	UJ	ND	0.21	ug/l	UJ	ND	0.21	ug/l	UJ				
GC Other																						
OSW-8082A																						
PCB-1016	12674-11-2		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
PCB-1221	11104-28-2		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
PCB-1232	11141-16-5		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
PCB-1242	53469-21-9		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
PCB-1248	12672-29-6		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
PCB-1254	11097-69-1		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
PCB-1260	11096-82-5		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
PCB-1262	37324-23-5		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
PCB-1268	11100-14-4		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
Polychlorinated biphenyls, Total	1336-36-3		ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---				

		Sample Name:	PMP-AS-230-082316				RW-11S(236-241)-082316				RW-3DD(175-180)-082316				RW-3DS(155-160)-082316				TB-06-082316			
		Lab Sample ID:	4601190924				4601190925				4601190926				4601190927				4601190928			
		Sample Date:	8/23/2016				8/23/2016				8/23/2016				8/23/2016				8/23/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
Metals																						
	OSW-6020A																					
	Aluminum	7429-90-5	54.7	40.0	ug/l	---	ND	40.0	ug/l	---	102	40.0	ug/l	---	40.5	40.0	ug/l	---				
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	78.5	40.0	ug/l	---	54.4	40.0	ug/l	---				
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	0.72	2.0	ug/l	J				
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---				
	Arsenic	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	16.8	2.0	ug/l	---	14.7	2.0	ug/l	---				
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	16.6	2.0	ug/l	---	13.5	2.0	ug/l	---				
	Barium	7440-39-3	553	4.0	ug/l	---	15.9	4.0	ug/l	---	8.5	4.0	ug/l	---	11.4	4.0	ug/l	---				
	Barium - Dissolved	7440-39-3	137	4.0	ug/l	---	15.7	4.0	ug/l	---	4.8	4.0	ug/l	---	13.4	4.0	ug/l	---				
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---				
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---				
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---				
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---				
	Calcium	7440-70-2	109000	200	ug/l	---	16000	200	ug/l	---	26300	200	ug/l	---	42500	200	ug/l	---				
	Calcium - Dissolved	7440-70-2	97400	200	ug/l	---	15200	200	ug/l	---	11400	200	ug/l	---	42500	200	ug/l	---				
	Chromium	7440-47-3	3.3	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---	1.4	4.0	ug/l	J				
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Copper	7440-50-8	ND	4.0	ug/l	---	5.8	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	1.9	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Iron	7439-89-6	139000	120	ug/l	---	142	120	ug/l	---	ND	120	ug/l	---	ND	120	ug/l	---				
	Iron - Dissolved	7439-89-6	22600	120	ug/l	---	ND	120	ug/l	---	ND	120	ug/l	---	ND	120	ug/l	---				
	Lead	7439-92-1	8.2	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---				
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---				
	Magnesium	7439-95-4	13000	200	ug/l	---	1860	200	ug/l	---	1460	200	ug/l	---	ND	200	ug/l	---				
	Magnesium - Dissolved	7439-95-4	11600	200	ug/l	---	2030	200	ug/l	---	1740	200	ug/l	---	ND	200	ug/l	---				
	Manganese	7439-96-5	2340	8.0	ug/l	---	327	8.0	ug/l	---	ND	8.0	ug/l	---	ND	8.0	ug/l	---				
	Manganese - Dissolved	7439-96-5	1860	8.0	ug/l	---	331	8.0	ug/l	---	ND	8.0	ug/l	---	ND	8.0	ug/l	---				
	Nickel	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---	2.6	4.0	ug/l	J				
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---	2.5	4.0	ug/l	J				
	Potassium	7440-09-7	8030	200	ug/l	---	1400	200	ug/l	---	8480	200	ug/l	---	32800	200	ug/l	---				
	Potassium - Dissolved	7440-09-7	8260	200	ug/l	---	1390	200	ug/l	---	8600	200	ug/l	---	39000	200	ug/l	---				
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---	2.1	10.0	ug/l	J				
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---	2.7	10.0	ug/l	J				
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---				
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---				
	Sodium	7440-23-5	32400	200	ug/l	---	2670	200	ug/l	---	35800	200	ug/l	---	189000	200	ug/l	---				
	Sodium - Dissolved	7440-23-5	31500	200	ug/l	---	2920	200	ug/l	---	31800	200	ug/l	---	166000	200	ug/l	---				
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---				
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---				
	Vanadium	7440-62-2	3.7	4.0	ug/l	J	ND	4.0	ug/l	---	4.0	4.0	ug/l	---	5.5	4.0	ug/l	---				
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	3.4	4.0	ug/l	J	3.7	4.0	ug/l	J				
	Zinc	7440-66-6	294	16.0	ug/l	---	12.2	16.0	ug/l	J	ND	16.0	ug/l	---	ND	16.0	ug/l	---				
	Zinc - Dissolved	7440-66-6	175	16.0	ug/l	---	11.0	16.0	ug/l	J	ND	16.0	ug/l	---	ND	16.0	ug/l	---				
	OSW-7470A																					
	Mercury	7439-97-6	ND	0.20	ug/l	---	0.49	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---				
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---				

		Sample Name:	PMP-AS-230-082316				RW-11S(236-241)-082316				RW-3DD(175-180)-082316				RW-3DS(155-160)-082316				TB-06-082316			
		Lab Sample ID:	4601190924				4601190925				4601190926				4601190927				4601190928			
		Sample Date:	8/23/2016				8/23/2016				8/23/2016				8/23/2016				8/23/2016			
	Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
General Chemistry																						
	OSW-9012B																					
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---				
	OSW-9056A																					
	Chloride	16887-00-6	11.6	1.20	mg/l	---	1.00	0.12	mg/l	---	12.3	1.20	mg/l	---	53.1	12.0	mg/l	---				
	Sulfate	14808-79-8	0.67	0.60	mg/l	---	7.37	0.60	mg/l	---	37.2	6.00	mg/l	---	393	60.0	mg/l	---				
Prep																						
	APHA-2320B																					
	Alkalinity	E-14506	388	5.0	mg/l	---	46.2	5.0	mg/l	---	64.3	5.0	mg/l	---	101	5.0	mg/l	---				
	Bicarbonate Alkalinity as CaCO3	E-14508	388	5.0	mg/l	---	46.2	5.0	mg/l	---	8.0	5.0	mg/l	---	ND	5.0	mg/l	---				

APPENDIX 4

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119092-1

		Sample Name:	RW-11D(262-267)-082316				PMP-AS-180-082316				PMP-AS-50-082316				PMP-AS-230-082316				RW-11S(236-241)-082316				RW-3DD(175-180)-082316				RW-3DS(155-160)-082316			
		Lab Sample ID:	4601190921				4601190922				4601190923				4601190924				4601190925				4601190926				4601190927			
		Sample Date:	8/23/2016				8/23/2016				8/23/2016				8/23/2016				8/23/2016				8/23/2016				8/23/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC																														
	OSW-8260C																													
	Acetone	67-64-1	46	5.0	ug/l	B													10	5.0	ug/l	B	13	5.0	ug/l	B	11	5.0	ug/l	B
	Indane - TIC	496-11-7													5.7	---	ug/l	NJ												
	Naphthalene - TIC	91-20-3													5.4	---	ug/l	NJ												
	Unknown - TIC	Tic1	7.4	---	ug/l	NJ																								
GC/MS SVOC																														
	OSW-8270D																													
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ					ND	10	ug/l	UJ
	2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ					ND	10	ug/l	UJ
	Bis(2-ethylhexyl) phthalate	117-81-7	1.5	2.1	ug/l	UB	2.2	2.0	ug/l	B	1.5	2.1	ug/l	UB	1.5	2.0	ug/l	UB	2.8	2.1	ug/l	B					1.8	2.1	ug/l	UB
	Caprolactam	105-60-2	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ					ND	10	ug/l	UJ
	Di-n-butyl phthalate	84-74-2	1.3	10	ug/l	UB	1.7	10	ug/l	UB	1.5	10	ug/l	UB	1.7	10	ug/l	UB	2.4	10	ug/l	UB					1.7	10	ug/l	UB
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ					ND	1.0	ug/l	UJ
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ					ND	10	ug/l	UJ
	OSW-8270DSIM																													
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	UJ	ND	0.020	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.020	ug/l	UJ	ND	0.021	ug/l	UJ					ND	0.021	ug/l	UJ
	Pentachlorophenol	87-86-5	ND	0.21	ug/l	UJ	ND	0.20	ug/l	UJ	ND	0.21	ug/l	UJ	ND	0.20	ug/l	UJ	ND	0.21	ug/l	UJ	ND	0.21	ug/l	UJ	ND	0.21	ug/l	UJ
Metals																														
	OSW-6020A																													
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	UJ																								
	Selenium - Dissolved	7782-49-2	1.4	10.0	ug/l	J																								
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	UJ																								

APPENDIX 5

September 11, 2016

Tim Roeper
Cornerstone EG
100 Crystal Run Road
Suite 101
Middletown, NY 10941

CADENA project ID: E203361
Project: Ford Ringwood Mines Project
Project number:
Client project scope reference: Sample COC only was used to define project analytical requirements.
Laboratory: TestAmerica - Edison
Laboratory submittal: 119092-1
Sample date: 2016-08-23
Report received by CADENA: 2016-09-09
Initial Data Verification completed by CADENA: 2016-09-11

The following minor QC exceptions or missing information were noted:

TBK - GCMS VOC TRIP blanks had detections above the RL for the following analytes: ACETONE. The following client sample results should be considered to be non-detect at the concentration reported and qualified with B flags: ACETONE - samples -001, -005, -006, -007. NOTE: Sample dilution factors are not included when assigning qualification based on trip blank detections.

TIC - GCMS VOC Tentatively Identified Compounds (TIC's) detected results should be considered to be estimated and qualified with NJ flags.

LCS - GCMS SVOC QC batch 387311 and QC batch 387196 LCS recoveries were outliers biased low for the following analytes: 2-METHYLPHENOL, CAPROLACTAM, HEXACHLOROBUTADIENE, HEXACHLOROBENZENE, 1,2,4,5-TETRACHLOROBENZENE, HEXACHLOROCYCLOPENTADIENE. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: 2-METHYLPHENOL - samples -001, -002, -003, -004, -005, -006, -007; CAPROLACTAM, HEXACHLOROBUTADIENE, HEXACHLOROBENZENE, HEXACHLOROCYCLOPENTADIENE, 1,2,4,5-TETRAHCLOROBENZENE - samples -001, -002, -003, -004, -005, -007.

MBK - GCMS SVOC QC batch 387196 method blanks had detections below the RL for the following analytes: BIS-2-ETHYLHEXYLPHTHALATE, DI-N-BUTYLPHTHALATE. The following client sample results should be considered to be non-detect at the RL and qualified with UB flags: BIS-2-ETHYLHEXYLPHTHALATE - samples -001, -003, -004, -007; DI-N-BUTYLPHTHALATE - samples -001, -002, -003, -004, -005, -007. The following client sample results should be considered to be non-detect at the concentration reported and qualified with B flags: BIS-2-ETHYLHEXYLPHTHALATE - samples -002, -005.

MSD - METALS sample -001 MS recovery outliers (NO MSD FOR THIS BATCH) were outliers with the recovery biased low for the following analytes: SILVER, ANTIMONY, SELENIUM. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

GCMS VOC QC batch 386844 and GCMS SVOC QC batch 387551 and GCMS SVOC-SIM QC batch 388049, 388356 CCV response outliers as noted in the laboratory submittal case narrative were not used to qualify client sample results as part of this level 2 data package verification review.

GCMS SVOC QC batch 387311 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

METALS QC batch 387370 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

PCB QC batch 386833 LCS recoveries were outliers biased high for the following analytes: AROCLOR 1260. Associated client sample results were non-detect so qualification was not required based on these high bias QC outliers.

METALS QC batch 387371 method blanks had detections below the RL for the following analytes: CALCIUM. Qualification of client sample results was not required based on these method blank detections.

METALS sample -001 MS and or MSD recovery outliers were not used to qualify results for BARIUM, ALUMINUM, POTASSIUM, CALCIUM, SODIUM due to high levels of these target analytes in the original sample relative to the spike concentration (4X rule).

CYANIDE sample -003 MS or MSD recoveries but not both or RPD only were outliers so client sample results were not qualified based on these QC outliers alone.

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

7 Water sample(s) were analyzed for GCMS VOC, GCMS SVOC, GC Other, Metals, General Chemistry and MISC parameter(s). 1 Trip blank was analyzed for GCMS VOC parameters.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, LCS/LCD RPD, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Qualifiers added during verification have been added to the electronic data which is available for download from the CADENA CLMS. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory analytical report access the CADENA CLMS at http://clms.cadenaco.com/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
J-	The result is an estimated quantity, but the result may be biased low.
JB	NON-DETECT AT THE CONCENTRATION REPORTED AND ESTIMATED
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
JUB	NON-DETECT AT THE REPORTING LIMIT AND ESTIMATED
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANAL

460-119092 Chain of Custody

ham Road
Jersey 08817
549-3900 Fax: (732) 549-3679

Page 1 of 1

Name (for report and invoice): Tim Reaper	Samplers Name (Printed): Robert Lautenberg	Site/Project Identification: Ford - Ringwood	
Company: Cornerstone Environmental Group	P. O. #: 140802-015	State (Location of site): NJ: X NY: Other:	
Address: 100 Crystal Run Rd, Suite 101	Analysis Turnaround Time: Standard X	Regulatory Program:	DKQP:
City: Middletown State: NY 10941	Rush Charges Authorized For: 2 Week, 1 Week, Other		
Phone: 845 695 0200 Fax:			

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + 1STICS 8260B	TCL SVOC + 1STICS 8270B	TAL Metals: Total + Filtered - cyanide	PCB's	Alkalinity, Total as $CaCO_3$ 2320B	Chloride 4500/9056	Sulfate 4500/9056	Cyanide	LAB USE ONLY Sample Numbers
RW-11D(262-267)-082316	8/23/16	09:05	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-1
PMP-AS-180-082316	8/23/16	10:25	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-2
PMP-AS-50-082316	8/23/16	09:40	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-3
PMP-AS-230-082316	8/23/16	13:25	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-4
RW-11S(236-241)-082316	8/23/16	12:15	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-5
RW-3DD(175-180)-082316	8/22/16	13:25	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-6
RW-3DS(155-160)-082316	8/23/16	15:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-7
TB-06-082316	8/23/16	—	BW	4	✓								-8

Project No: 119077

Job No: ~~H9025~~ KR 8/25/16

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____ Soil: Water:

Special Instructions: Do not report 1,4 Dioxane for VOC's + SVOC's

Water Metals Filtered (Yes/No)? No

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/24/16 845	1)	TAL
2)	TAL	8/24/16 1240	2)	PSE
3)			3)	8/24/16
4)			4)	1240

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

TAL - 0016 (0715)

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	criteria reference	general observations	GCMS VOC	GCMS VOC SIM	GCMS SVOC	GCMS SVOC SIM	GC PCBs	ICP - MS METALS (T/D)	Manual Cold Vaper Mercury (T/D)	TOTAL CYANIDE	HPLC/IC - ANIONS	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS												
SOW available?			2009	2009	2009	2009	2009	2009	2009	2009	2009	2009
Scope validation criteria referenced			CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics
Lab certifications required			New Jersey	New Jersey	New Jersey	New Jersey	New Jersey	New Jersey	New Jersey	New Jersey	New Jersey	New Jersey
Lab single blind PE samples completed			NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
SAMPLING ISSUES			NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS												
holding times			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
preservation			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
temperature of cooler - degrees C			0.8, 0.9, 0.2	0.8, 0.9, 0.2	0.8, 0.9, 0.2	0.8, 0.9, 0.2	0.8, 0.9, 0.2	0.8, 0.9, 0.2	0.8, 0.9, 0.2	0.8, 0.9, 0.2	0.8, 0.9, 0.2	0.8, 0.9, 0.2
COC discrepancies			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
sample integrity (containers, amounts)			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
ANALYTICAL/PREP GENERAL												
prep batch	LAB		NA	NA	387196, 387311	387196, 387311	386833	387370, 387371, 388388	387413, 388137	388799	NA	NA
prep date	LAB		NA	NA	27-Aug	27-Aug	25-Aug	8/29/16-09/1/16	29-Aug	6-Sep	6-Sep	NA
analytical batch	LAB		386844	387501	388543, 387551	388356, 388049	386921	388293, 388143, 388832, 389269, 388613	387486, 388212	388866	388806	388903
analytical date	LAB		8/25/2016 8/26	8/29/2016 8/30	3-Sep	9/01/2016 9/2	26-Aug	09/2/16 - 09/08/16	09/2/16 - 09/08/16	6-Sep	6-Sep	6-Sep
instrument ID	LAB		CVOAMS5	CVOAMS11	CBNAMS6	CBNAMS9	CPESTGC9	ICPMS2	LEEMAN6	LATHAT3	IC A	NOEQUIP
Instrument Tune	METHOD	tune	OK	OK	OK	OK	NA	OK	NA	NA	NA	NA
Instrument Performance Checks	METHOD	tailing, degradation	NA	NA	OK	OK	NA	NA	NA	NA	NA	NA
ICAL (Initial Calibration Curve), Curve ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	56415	57303	57159, 57491	57611	57495, -96, 57501, -02-07, -08, -13, -14, -19, -20, -25, -26, -31, -32, -37, -38	16H31V00.B, 16101s00.B, 16102u00.B, 16103p00.B, 16107t00.B	387413hg1, 388129hg1	OM_9-6_2016	57277	NA
ICAL (Initial Calibration Curve) Date	METHOD		22-Jun	19-Aug	9-Aug	30-Aug	23-Aug	8/31, 9/1, 9/2, 9/3, 9/7	8/29, 9/1	6-Sep	17-Aug	NA
ICV (Initial Calibration Verification)	METHOD	max 30%	OK	No Raw Data	No Raw Data	No Raw Data	No Raw Data	OK	OK	OK	OK	NA
CCV (Continuing Calibration Verification)	METHOD	max 20%/50%	CCV 386844 HIGH-TCFM, DCFM	OK	387551-HIGH-NNDNPA, 4C3MP	CCV 388049, 388356 LOW-PCP	OK	OK	OK	OK	OK	NA
Target Compound Lists	SCOPE/COC		TCL + TICs	1,2-dibromo-3-chloropropane, 1,2,3-trichloropropane and EDP	TCL	PAH,PCP,HCB,B2CEE	PCBs	Dissolved/Total Target Analyte List	Mercury	Total Cyanide	Sulfate, Chloride	Bicarbonate, Alkalinity as $CaCl_3$ Alkalinity
Reporting Limits (RL/PQL/LOQ) compliant	SCOPE	1.0 ug/l	1, 5, 10ug/l	0.2 - 0.3 ug/l	Varies,1.0 and up	.02 - .05 ug/l	0.40 ug/l	Varies	0.2 ug/l	0.1 mg/l	0.1 - 6 ug/l	5.0 mg/l
Blanks- method/calibration	NFG		OK	OK	387196-B2EHP, DNBP	OK	OK	OK	OK	OK	OK	OK
LCS (Laboratory Control Spikes)	lab control limits	by method	70-130%	40-160%, 70-130%, 20%	387196-LOW-2MP,CAPROLACTAM, HCBD, HCB, HCCPD,1245TCB	20-160, 70-130, 20%	40-140%, 20%	80 - 120%	80 - 120%	80-120%	90- 110%, 15%	90.5-107.9%
MS/MSD (Matrix Spikes)	lab control limits	by method	No MS in Batch	40-160%, 70-130%, 20%	20-160, 70-130, 20%	20-160, 70-130, 20%	40-140%, 20%	SAMP-001-AG, SB, SE	75 - 125%	75-125%, 20%	90- 110%, 15%	NA
Sample duplicates	lab control limits	NA	NA	OK	NA	NA	NA	OK	OK	OK	OK	OK
Internal standard reponses/RRT	METHOD	50-200%	OK	OK	OK	OK	OK	OK	NA	NA	NA	NA
Surrogate recoveries	lab control limits		OK	OK	OK	NA	SAMP -001, -007 - SURR P FLAGS.	NA	NA	NA	NA	NA
Qualitative criteria met	METHOD		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TICS (Tentatively Identified Compounds)	METHOD		NJ Flag	NA	NA	NA	NA	NA	NA	NA	NA	NA
TIC blanks	NFG		OK	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trip blanks	NFG		Acetone above RL, Bflags	OK	NA	NA	NA	NA	NA	NA	NA	NA
Field blanks	NFG		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field duplicates	SCOPE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Post Digestion Spikes (PDS)	METHOD		NA	NA	NA	NA	NA	SAMP-006 high, D. Ag	OK	NA	NA	NA
Serial Dilution (SD)	METHOD		NA	NA	NA	NA	NA	OK	OK	NA	NA	NA
CRQL checks performed?	SCOPE		NA	NA	NA	NA	NA	OK	NA	NA	NA	NA
E flagging required	LAB		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GENERAL QC TRACKING												
Control Limits	SCOPE	see above	DKQP	DKQP	DKQP	DKQP	DKQP	DKQP	DKQP	DKQP	DKQP	DKQP
Certificates of Analysis for primary standards	VALIDATOR		NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED
Working/Intermediate standard prep calculations	VALIDATOR	prep log	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED
Prep technique	not specified	VARIES	5030	5030	3510C	3510C	3510C	3010A	7470A	9012B	NA	SM 2320B
Prep sample volumes/mass	not specified	VARIES	5 mL	5 mL	250/2 mL	250/2 mL	250/1 mL	50 mL	50 mL	5 mL	10 mL	50 mL
OVERALL												
Data Reportable?			YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

E-Mail Date: 2016-10-02
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cc:

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ANALYTICAL DATA VALIDATION REPORT
Ringwood Mines/Landfill
Ford Motor Company
PROJECT 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED August 24, 2016
DATA PACKAGE RECEIVED September 12, 2016
SUBMITTAL #: 460-119177-1

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TABLE OF CONTENTS

LISTS OF APPNEDICES

(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by TestAmerica-Edison Laboratory the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	GCMS VOC	GCMS VOC SIM	OSW-SVOC	GCMS SVOC SIM	OSW-PCB	Dissolved Metals by ICP MS	Total Metals by ICP MS	Mercury (Manual Cold Vapor) (D)	Mercury (Manual Cold Vapor) (T)	TOTAL CYANIDE	SULFATE CHLORIDE	Alkalinity
4601191771	TB-07-082416	8/24/2016	X	X										
4601191772	FB-04-082416	8/24/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601191773	DUP-04-082416	8/24/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601191774	RW-3-082416	8/24/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601191775	RW-15S(110-120)-082416	8/24/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601191776	RW-15D(127-137)-082416	8/24/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601191777	RW-4(333-343)-082416	8/24/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601191778	RW-4(393-403)-082416	8/24/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601191779	RW-4A(113-123)-082416	8/24/2016	X	X	X	X	X	X	X	X	X	X	X	X

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	*Reference Method*	*Analyte Listing*
GCMS VOC Organics	OSW-8260C	Target Compound List
GCMS VOC Organics-SIM	OSW-8260C-SIM	1,2-Dibromo-3-chloropropane and EDB
Semi-Volatile Organics	OSW-8270D	Target Compound List
Semi-Volatile Organics	OSW-8270D/SIM	PAH, PCP, HCB, B2CEE
GC ECD Semi-Volatiles	OSW-8082A	PCB's
Metals by ICP/MS	OSW-6020A	Target Analyte List(total,dissolved)
Mercury by Cold Vapor	OSW-7470A	Mercury(total, dissolved)
Total Cyanide	OSW-9012B	Total Cyanide
Ion Chromatography	OSW-9056A	Chloride, Sulfate
Alkalinity	APHA-2320B	Alkalinity, Bicarbonate Alkalinity

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard

Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound

	but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

Additional data qualifications based on review of the level 4 data package using laboratory criteria provided if required are noted below. Qualifications that would be required based on comparison to NFG criteria are noted where applicable. These qualifications would be added to the database and associated summary tables in the appendices if applicable.

GC/MS SVOC

CCV outliers in analytical batch 388683 CCV response outlier was low and outside the specified criteria for 2,4-DINITROPHENOL. Client sample results for this analyte should be considered to be estimated and qualified with a UJ flags if non-detect.

GC/MS SVOC SIM

CCV outliers in analytical batch 388366 CCV response outlier was low and outside the specified criteria for BIS(2-CHLOROETHYL)ETHER Client sample results for this analyte should be considered to be estimated and qualified with a UJ flags if non-detect.

METALS

PSP - sample -005 Post Digestion Spike (PDS) recovery outside high of method criteria for TOTAL POTASSIUM resulted in qualification of client sample data.

The following observations **DID NOT** result in qualification but were noted during the validation review:

GC/MS VOC

CCV outliers in analytical batch 387388 CCV were high and outside the specified criteria for CHLOROBROMOMETHANE. Associated client results were non-detect so qualification was not required based on the high bias QC outlier.

ALL PARAMETERS

Certificates of analysis for standards and all working/primary standard concentrations that are required to verify calibration standard concentrations and spike levels were not available in the laboratory data package for review.

GC/MS SVOC and SVOC SIM

Initial Calibration Verification (ICV) raw data was not available for reconstruction/re-calculation of ICV results.

VERIFICATION SUMMARY

The following qualifications and associated data flags were applied based on the initial level 2 review of this data package.

TBK - GCMS VOC TRIP blanks had detections above the RL for the following analytes: ACETONE. The following client sample results should be considered to be non-detect at the concentration reported and qualified with B flags: ACETONE - samples -003, -004, -005, -006, -007, -008, -009. NOTE: Sample dilution factors are not included when assigning qualification based on trip blank detections.

TIC - GCMS VOC Tentatively Identified Compounds (TIC's) detected results should be considered to be estimated and qualified with NJ flags.

LCS - GCMS VOC QC batch 387388 LCS recoveries were outliers biased low for the following analytes: VINYL CHLORIDE. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: VINYL CHLORIDE - ALL SAMPLE RESULTS.

MSD - GCMS SVOC sample -005 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased low for the following analytes: 2-NITROPHENOL. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

LCS - GCMS SVOC-SIM QC batch 387456 LCS recoveries were outliers biased low for the following analytes: BENZO(B)FLUORANTHENE, BENZO(A)PYRENE, DIBENZO(AH)ANTHRACENE. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: BENZO(B)FLUORANTHENE, BENZO(A)PYRENE, DIBENZO(AH)ANTHRACENE - ALL SAMPLE RESULTS.

GCMS SVOC sample -005 MS or MSD recoveries but not both or RPD only were outliers for 2,4-DICHLOROPHENOL, 4-NITROPHENOL, BENZO(K)FLUORANTHENE so client sample results were not qualified based on these QC outliers alone.

GCMS SVOC sample -005 surrogate recovery outliers (1 of 3 acid outlier biased high) did not result in qualification of client sample data.

METALS sample -005 duplicate RPD outliers were not used to qualify results for ALUMINUM since the relative difference between replicates was acceptable based on low concentration criteria.

2.0 VOLATILE ORGANIC COMPOUNDS (VOCs) – METHOD SW846 8260C and SIM ANALYSIS

See Attachments for submittal-specific review summary of QC requirements noted below.
The target analyte list was defined by the client-project as TCL List OLM4.2 for 8260C full scan and as noted in section 1 above for SIM analysis.

2.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) VOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS VOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS VOCs

Initial calibration data for VOCs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS VOCs

Initial calibration data for VOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary..

2.2 CONTINUING CALIBRATION – GC/MS VOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless otherwise noted in the executive summary noted above and qualified in the data tables. Target analytes associated with CCV compounds outside of method criteria were qualified as estimated with J flags if sample results were non-detect and estimated with UJ flags if CCV bias was low and sample results was non-detect and J flags if sample results were detections. Non-detect results were not qualified if CCV bias was high and sample results were non-detect.

2.3 INTERNAL STANDARDS – GC/MS VOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS VOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS VOCs

A laboratory control sample (LCS) was prepared and analyzed for VOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless otherwise noted in the executive summary and as qualified the QAR and ARS data tables found in the appendices.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS VOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS VOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS VOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS VOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS VOCs

Tentatively Identified Compounds (TIC) searches were associated with each sample analysis and should all be considered to be estimated and qualified with NJ flags when detected.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS VOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D and SIM analysis – GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

3.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

3.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

3.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

3.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

3.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

3.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

3.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) was prepared and analyzed for the target analyte SVOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

3.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

3.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

3.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

3.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

3.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

3.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal..

4.0 POLYCHLORINATED BIPHENYLS (PCBs) – METHOD SW846 8082A

The target analyte list was defined by the client as the standard 7 aroclors.

4.1 CALIBRATION – GAS CHROMATOGRAPH-ECD

4.1.1 TUNING AND MASS CALIBRATION – PCB

Not applicable for this analysis.

4.1.2 INITIAL CALIBRATION – PCB

Initial calibration data for PCBs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

4.1.3 INITIAL CALIBRATION VERIFICATION – PCB

Initial calibration verification (ICV) standards for PCB analyses were reviewed and met criteria specified by the laboratory with no exceptions.

4.2 CONTINUING CALIBRATION – PCBs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary.

4.3 INTERNAL STANDARDS – PCB

Internal standard (IS) data were reviewed and met criteria unless noted otherwise in verification/validation summary. (NOTE: Lab quantitation approach DID use internal standard quantitation for this submittal).

4.4 SURROGATE SPIKE RECOVERIES – PCB

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

4.5 LABORATORY CONTROL SAMPLE ANALYSES - PCB

A laboratory control sample (LCS) was prepared and analyzed for PCBs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

4.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - PCB

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

CADENA does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

4.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - PCB

There were no field duplicate comparisons performed as part of this validation request.

4.8 EXTRACT CLEANUP - PCB

Extract cleanups were performed in accordance with laboratory SOP's and as noted in level 4 data package prep logs.

4.9 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - PCB

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

4.10 TENTATIVELY IDENTIFIED COMPOUNDS - PCB

Not requested for this analytical procedure.

4.11 BLANKS – METHOD/FIELD/CALIBRATION - PCB

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

5.0 HPLC/IC – METHOD SW846 9056A – CHLORIDE AND SULFATE

5.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

5.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

5.3 CONTINUTING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

5.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

5.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

5.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

5.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

5.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

6.0 METALS – ICPMS by Method 6020A TOTAL AND DISSOLVED and Mercury by Method 7470A

The following samples provided in this SDG underwent a Level IV review for either/and metals or mercury analyses:

- Method 6020A: ALL
- Method 7470A: ALL

6.1 ICP/MS TUNING AND MASS CALIBRATION

Instrument tuning data were reviewed. Tuning elements were analyzed. All tuning criteria were met for the analyses, indicating proper optimization of the instrumentation.

6.2 INITIAL CALIBRATION

Initial calibration data for metals and mercury were reviewed and met the criteria for linearity of response without exception.

6.3 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards for metals and mercury analyses were reviewed and met criteria unless otherwise noted in verification/validation summary section of this document.

An initial calibration blank (ICB) was analyzed for metals and mercury analyses. Metals and mercury were reported as non-detect in each ICB analysis unless noted otherwise in verification/validation summary.

6.4 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for metals and mercury analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

6.5 INTERFERENCE CHECK STANDARD

The interference check standard results were reviewed and found to meet criteria.

6.6 INTERNAL STANDARDS

Internal standard (IS) data were reviewed and found to meet criteria unless noted otherwise in verification/validation summary.

6.7 LABORATORY CONTROL SAMPLE ANALYSIS

A laboratory control sample (LCS) was prepared and analyzed for metals and mercury. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

6.8 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE (MS/MSD) ANALYSES

The MS/MSD recoveries and RPD's were either not performed using a client sample or were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

6.9 CONTRACT REQUIRED DETECTION LIMIT STANDARD ANALYSES

Each contract required detection limit (CRDL) standard was analyzed at the proper frequency and were within laboratory control limits unless noted otherwise in verification/validation summary.

6.10 ICP SERIAL DILUTION

Serial dilutions were analyzed at the proper frequency and were either not performed using the client sample or were within laboratory control limits unless noted otherwise in verification/validation summary.

6.11 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

6.12 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

6.13 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

7.0 GENERAL CHEMISTRY- TOTAL AND AMENABLE CYANIDE AND ALKALINITY – METHODS 9012B and 2320B

7.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

7.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

7.3 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

7.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

7.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

7.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

7.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

7.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

8.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

8.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

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All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	***Reference Method***	***Matrix***	***Preservation & Storage***	***Holding Times***
Volatile Organics by GCMS	OSW-8260C/SIM	Water	Acidify ph<2 Refrigeration 0-6oC	14 days
Semivolatile Organics by GCMS	OSW-8270D/SIM	Water	Refrigeration 0-6oC	7 days Extraction 40 days Analysis
Polychlorinated Biphenyls by GC/ECD	OSW-8082A	Water	Refrigeration 0-6oC	365 days - Extraction - Analysis
Metals by ICP/ICPMS Spectroscopy	OSW-6010B OSW-6020A	Water	Acidify pH<2 Refrigeration 0-6oC	180 days
Mercury in Aqueous Waste	OSW-7470A	Water	Acidify pH<2 Refrigeration 0-6oC	28 days
Alkalinity	EPA 2320B	Water	Refrigeration 0-6oC	14 days
Chloride and Sulfate	OSW-9056A	Water	Refrigeration 0-6oC	28 days
Total and Amenable Cyanide	OSW-9012B	Water	Test for presence of Sulfide – if unknown collect two samples and treat one with Lead Carbonate. Then adjust sample to pH of greater than or equal to 12with NaOH. Refrigeration	14 days if preserved. 24 hours or sooner if unpreserved

			at 0-4C –(also may require treatment for aldehydes and chlorine/hypochlorite/sulfite)	

8.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

9.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

10.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: TestAmerica-Edison
Laboratory Submittal: 119177-1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS VOC Volatiles	GCMS VOC SIM	OSW-8270D	GCMS SVOC SIM	OSW-8082A	Metals by ICP Mass Spectroscopy(D)	Metals by ICP Mass Spectroscopy	Mercury (Manual Cold Vapor)(D)	Mercury (Manual Cold Vapor)	TOTAL AND AMENABLE CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Anions by IC	Alkalinity Prep
4601191771	TB-07-082416	8/24/2016	12:00:00	X	X										
4601191772	FB-04-082416	8/24/2016	7:45:00	X	X	X	X	X	X	X	X	X	X	X	X
4601191773	DUP-04-082416	8/24/2016	12:00:00	X	X	X	X	X	X	X	X	X	X	X	X
4601191774	RW-3-082416	8/24/2016	9:35:00	X	X	X	X	X	X	X	X	X	X	X	X
4601191775	RW-15S(110-120)-082416	8/24/2016	11:50:00	X	X	X	X	X	X	X	X	X	X	X	X
4601191776	RW-15D(127-137)-082416	8/24/2016	1:40:00	X	X	X	X	X	X	X	X	X	X	X	X
4601191777	RW-4(333-343)-082416	8/24/2016	2:50:00	X	X	X	X	X	X	X	X	X	X	X	X
4601191778	RW-4(393-403)-082416	8/24/2016	3:35:00	X	X	X	X	X	X	X	X	X	X	X	X
4601191779	RW-4A(113-123)-082416	8/24/2016	4:10:00	X	X	X	X	X	X	X	X	X	X	X	X

APPENDIX 2

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

Standard Report Cover page
Table of Contents
SDG Case Narrative
Sample Summary
Executive Summary detection highlights
Method Summary
Method/Analyst Summary
Analytical Results
Surrogate Summary
Quality Control Results
Data Qualifiers
QC Summary Association
Lab Chronicle
GCMS Volatiles Data - Method 8260C and SIM
- QC Summary Data
  - Surrogate recoveries (form II)
  - Check Sample recoveries (form III)
  - Matrix spike/Matrix spike duplicate report (form III)
  - Method blank report (form IV)
  - Tuning and mass calibrations (form V)
  - Internal Standard and RT area summary (form VIII)
- Sample Data
  - GCMS VOA Organics Analysis Data Sheet (Form I)
  - Raw integration data from instrument
  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report (Form VII)
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not included with SIM package)
  - FORM I - QC data
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
  - MS and MSD integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Run logs

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

GCMS Semivolatiles Data - Method 8270D and SIM

- QC Summary Data
  - Surrogate recoveries (form II)
  - Check Sample recoveries (form III)
  - Method blank report (form IV)
  - Tuning and mass calibrations (form V) (not applicable for SIM)
  - Internal Standard and RT area summary (form VIII)
- Sample Data
  - GCMS VOA Organics Analysis Data Sheet (Form I)
  - Raw integration data from instrument
  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not applicable for SIM)
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Instrument run logs
  - Extraction bench sheets

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

- Polychlorinated Biphenyls Data (PCB)
  - QC Summary data
    - Surrogate recoveries (form II)
    - Check Sample Recovery data (form III)
    - Method Blank data (form IV)
    - Analytical sequence with RT check (Form VIII)
    - Identification Summary (Form X)
  - Sample Data
    - Organics Analysis Data Sheet (Form I)
    - Raw integration data from instrument
    - Chromatogram
  - Standards Data (both columns)
    - Initial Calibration Data External Standard RT Summary (Form VI)
    - Initial Calibration Data Summary with average RF
    - Raw integration data from instrument with manual integrations where applicable
    - ICAL chromatograms
    - Continuing Calibration Data (Form VII) with RT Summaries
    - ICV raw integration and chromatograms
    - CCV raw integration data from instrument
    - CCV chromatogram
  - Raw QC Data
    - LCS/LCSD sample data report and integration and chromatograms
    - Method blank integration and chromatograms
  - Miscellaneous Data
    - Sequence table (run log)
    - PCB Batch Worksheet
- HPLC/IC - 9056A ORGFM_28D - Anions, Ion Chromatography - Sulfate and Chloride
  - Raw Data and Data Summaries for:
    - LCS/LCSD (form III)
    - MS/MSD (form III)
    - METHOD BLANKS (Form IV)
    - SAMPLE DATA (Form I)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - ICAL (Form VI)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - ICAL (Form VII)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - QC DATA (Form I)
      - Raw instrument data and chromatography
    - Analysis Run Logs

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

METALS DATA (ICPMS and mercury)
- Forms Data
  - Cover Page
  - Inorganic Analysis Data Sheet - Metals Dissolved/Total Recoverable (1A-IN)
  - CCV standard report - mercury and ICPMS (2A-IN)
  - CRQL report - mercury and ICPMS (2B-IN)
  - ICB report - mercury and ICPMS (3-IN)
  - Method blank report (3-IN)
  - Interference check standard A - ICPMS (4A-IN)
  - Interference check standard AB - ICPMS (4A-IN)
  - MS/MSD Sample recovery (5A-IN)
  - PDS Summary (5B-IN)
  - LCS Recovery form (7A-IN)
  - LCS Duplicate Recover (7D-IN)
  - ICP-MS Serial Dilutions (8-IN)
  - Detection Limits Form (9-IN)
  - Linear dynamic ranges - ICPMS (11-IN)
  - Prep log - mercury and ICPMS (12-IN)
  - Run log - ICPMS and Mercury (13-IN)
  - ICP-MS TUNE (14-IN)
  - ICPMS Internal Standards Relative Intensity Summary (15-IN)
- Instrument Printouts
  - ICP-MS Raw instrument data
  - Mercury raw instrument data, run logs and calibrations
- Miscellaneous Data
  - Metals Batch Worksheet

GENERAL CHEMISTRY - Total and Amenable Cyanide and Alkalinity
- Cover Page
- Raw Data and Data Summaries for:
  - Sample Data (Form 1B-IN)
  - CCV/CCB (Form 2-IN)
  - METHOD BLANKS (Form 3-IN)
  - MATRIX SPIKES (Form 5-IN)
  - Sample DUPLICATES (Form 6-IN)
  - LCS/LCSD (Form 7-IN)
  - Detection Limits Form (9-IN)
  - Prep log (12-IN)
  - Analysis Run Logs (13-IN)
  - Raw Data - instrument sample sequence and calibration curve
  - Alkalinity Reagents
  - Alkalinity pH meter calibration
  - Alkalinity sequence log and raw data
  - General Chemistry Batch Worksheets

Shipping and Receiving Documents
- COC forms
- Cooler Receipt Form, checklist and narrative

APPENDIX 3

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119177-1

		Sample Name:	TB-07-082416				FB-04-082416				DUP-04-082416		
		Lab Sample ID:	4601191771				4601191772				4601191773		
		Sample Date:	8/24/2016				8/24/2016				8/24/2016		
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**
GC/MS VOC												
OSW-8260C												
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l
Acetone	67-64-1	8.3	5.0	ug/l	---	ND	5.0	ug/l	---	9.4	5.0	ug/l
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	1.2	1.0	ug/l	---	ND	1.0	ug/l
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
Sulfur dioxide - TIC	7446-09-5											
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l

		Sample Name:	TB-07-082416				FB-04-082416				DUP-04-082416		
		Lab Sample ID:	4601191771				4601191772				4601191773		
		Sample Date:	8/24/2016				8/24/2016				8/24/2016		
				Report		Valid		Report		Valid		Report	
	Analyte	Cas No.	Result	Limit	Units	Qualifier	Result	Limit	Units	Qualifier	Result	Limit	Units
	Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
	trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
	trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
	Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
	Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l
	Vinyl chloride	75-01-4	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l
	Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l
GC/MS SVOC													
	OSW-8260CSIM												
	1,2,3-Trichloropropane	96-18-4					ND	0.030	ug/l	---	ND	0.030	ug/l
	1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l
	Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l
	OSW-8270D												
	1,1'-Biphenyl	92-52-4					ND	11	ug/l	---	ND	11	ug/l
	1,2,4,5-Tetrachlorobenzene	95-94-3					ND	11	ug/l	---	ND	11	ug/l
	2,2'-oxybis[1-chloropropane]	108-60-1					ND	11	ug/l	---	ND	11	ug/l
	2,3,4,6-Tetrachlorophenol	58-90-2					ND	11	ug/l	---	ND	11	ug/l
	2,4,5-Trichlorophenol	95-95-4					ND	11	ug/l	---	ND	11	ug/l
	2,4,6-Trichlorophenol	88-06-2					ND	11	ug/l	---	ND	11	ug/l
	2,4-Dichlorophenol	120-83-2					ND	11	ug/l	---	ND	11	ug/l
	2,4-Dimethylphenol	105-67-9					ND	11	ug/l	---	ND	11	ug/l
	2,4-Dinitrophenol	51-28-5					ND	21	ug/l	UJ	ND	21	ug/l
	2,4-Dinitrotoluene	121-14-2					ND	2.1	ug/l	---	ND	2.1	ug/l
	2,6-Dinitrotoluene	606-20-2					ND	2.1	ug/l	---	ND	2.1	ug/l
	2-Chloronaphthalene	91-58-7					ND	11	ug/l	---	ND	11	ug/l
	2-Chlorophenol	95-57-8					ND	11	ug/l	---	ND	11	ug/l
	2-Methylnaphthalene	91-57-6					ND	11	ug/l	---	ND	11	ug/l
	2-Methylphenol	95-48-7					ND	11	ug/l	---	ND	11	ug/l
	2-Nitroaniline	88-74-4					ND	11	ug/l	---	ND	11	ug/l
	2-Nitrophenol	88-75-5					ND	11	ug/l	---	ND	11	ug/l
	3,3'-Dichlorobenzidine	91-94-1					ND	11	ug/l	---	ND	11	ug/l
	3-Nitroaniline	99-09-2					ND	11	ug/l	---	ND	11	ug/l
	4,6-Dinitro-2-methylphenol	534-52-1					ND	21	ug/l	---	ND	21	ug/l
	4-Bromophenyl phenyl ether	101-55-3					ND	11	ug/l	---	ND	11	ug/l
	4-Chloro-3-methylphenol	59-50-7					ND	11	ug/l	---	ND	11	ug/l
	4-Chloroaniline	106-47-8					ND	11	ug/l	---	ND	11	ug/l
	4-Chlorophenyl phenyl ether	7005-72-3					ND	11	ug/l	---	ND	11	ug/l
	4-Methylphenol	106-44-5					ND	11	ug/l	---	ND	11	ug/l
	4-Nitroaniline	100-01-6					ND	11	ug/l	---	ND	11	ug/l
	4-Nitrophenol	100-02-7					ND	21	ug/l	---	ND	21	ug/l
	Acenaphthene	83-32-9					ND	11	ug/l	---	ND	11	ug/l
	Acenaphthylene	208-96-8					ND	11	ug/l	---	ND	11	ug/l
	Acetophenone	98-86-2					ND	11	ug/l	---	ND	11	ug/l

		Sample Name:	TB-07-082416			FB-04-082416				DUP-04-082416		
		Lab Sample ID:	4601191771			4601191772				4601191773		
		Sample Date:	8/24/2016			8/24/2016				8/24/2016		
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units
	Anthracene	120-12-7					ND	11	ug/l	---	ND	11	ug/l
	Atrazine	1912-24-9					ND	2.1	ug/l	---	ND	2.1	ug/l
	Benzaldehyde	100-52-7					ND	11	ug/l	---	ND	11	ug/l
	Benzo[g,h,i]perylene	191-24-2					ND	11	ug/l	---	ND	11	ug/l
	Benzo[k]fluoranthene	207-08-9					ND	1.1	ug/l	---	ND	1.1	ug/l
	Bis(2-chloroethoxy)methane	111-91-1					ND	11	ug/l	---	ND	11	ug/l
	Bis(2-ethylhexyl) phthalate	117-81-7					ND	2.1	ug/l	---	ND	2.1	ug/l
	Butyl benzyl phthalate	85-68-7					ND	11	ug/l	---	ND	11	ug/l
	Caprolactam	105-60-2					ND	11	ug/l	---	ND	11	ug/l
	Carbazole	86-74-8					ND	11	ug/l	---	ND	11	ug/l
	Chrysene	218-01-9					ND	2.1	ug/l	---	ND	2.1	ug/l
	Di-n-butyl phthalate	84-74-2					ND	11	ug/l	---	ND	11	ug/l
	Di-n-octyl phthalate	117-84-0					ND	11	ug/l	---	ND	11	ug/l
	Dibenzofuran	132-64-9					ND	11	ug/l	---	ND	11	ug/l
	Diethyl phthalate	84-66-2					ND	11	ug/l	---	ND	11	ug/l
	Dimethyl phthalate	131-11-3					ND	11	ug/l	---	ND	11	ug/l
	Fluoranthene	206-44-0					ND	11	ug/l	---	ND	11	ug/l
	Fluorene	86-73-7					ND	11	ug/l	---	ND	11	ug/l
	Hexachlorobutadiene	87-68-3					ND	1.1	ug/l	---	ND	1.1	ug/l
	Hexachlorocyclopentadiene	77-47-4					ND	11	ug/l	---	ND	11	ug/l
	Hexachloroethane	67-72-1					ND	1.1	ug/l	---	ND	1.1	ug/l
	Isophorone	78-59-1					ND	11	ug/l	---	ND	11	ug/l
	N-Nitrosodi-n-propylamine	621-64-7					ND	1.1	ug/l	---	ND	1.1	ug/l
	N-Nitrosodiphenylamine	86-30-6					ND	11	ug/l	---	ND	11	ug/l
	Naphthalene	91-20-3					ND	11	ug/l	---	ND	11	ug/l
	Nitrobenzene	98-95-3					ND	1.1	ug/l	---	ND	1.1	ug/l
	Phenanthrene	85-01-8					ND	11	ug/l	---	ND	11	ug/l
	Phenol	108-95-2					ND	11	ug/l	---	ND	11	ug/l
	Pyrene	129-00-0					ND	11	ug/l	---	ND	11	ug/l
	OSW-8270DSIM												
	Benzo[a]anthracene	56-55-3					ND	0.053	ug/l	---	ND	0.053	ug/l
	Benzo[a]pyrene	50-32-8					ND	0.053	ug/l	UJ	ND	0.053	ug/l
	Benzo[b]fluoranthene	205-99-2					ND	0.053	ug/l	UJ	ND	0.053	ug/l
	Bis(2-chloroethyl)ether	111-44-4					ND	0.021	ug/l	UJ	ND	0.021	ug/l
	Dibenz(a,h)anthracene	53-70-3					ND	0.053	ug/l	UJ	ND	0.053	ug/l
	Hexachlorobenzene	118-74-1					ND	0.021	ug/l	---	ND	0.021	ug/l
	Indeno[1,2,3-cd]pyrene	193-39-5					ND	0.053	ug/l	---	ND	0.053	ug/l
	Pentachlorophenol	87-86-5					ND	0.21	ug/l	---	ND	0.21	ug/l
GC Other													
	OSW-8082A												
	PCB-1016	12674-11-2					ND	0.42	ug/l	---	ND	0.40	ug/l
	PCB-1221	11104-28-2					ND	0.42	ug/l	---	ND	0.40	ug/l
	PCB-1232	11141-16-5					ND	0.42	ug/l	---	ND	0.40	ug/l
	PCB-1242	53469-21-9					ND	0.42	ug/l	---	ND	0.40	ug/l
	PCB-1248	12672-29-6					ND	0.42	ug/l	---	ND	0.40	ug/l
	PCB-1254	11097-69-1					ND	0.42	ug/l	---	ND	0.40	ug/l
	PCB-1260	11096-82-5					ND	0.42	ug/l	---	ND	0.40	ug/l
	PCB-1262	37324-23-5					ND	0.42	ug/l	---	ND	0.40	ug/l
	PCB-1268	11100-14-4					ND	0.42	ug/l	---	ND	0.40	ug/l
	Polychlorinated biphenyls, Total	1336-36-3					ND	0.42	ug/l	---	ND	0.40	ug/l

		Sample Name:	TB-07-082416				FB-04-082416				DUP-04-082416		
		Lab Sample ID:	4601191771				4601191772				4601191773		
		Sample Date:	8/24/2016				8/24/2016				8/24/2016		
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units
Metals													
	OSW-6020A												
	Aluminum	7429-90-5					ND	40.0	ug/l	---	ND	40.0	ug/l
	Aluminum - Dissolved	7429-90-5					ND	40.0	ug/l	---	ND	40.0	ug/l
	Antimony	7440-36-0					ND	2.0	ug/l	---	ND	2.0	ug/l
	Antimony - Dissolved	7440-36-0					ND	2.0	ug/l	---	ND	2.0	ug/l
	Arsenic	7440-38-2					ND	2.0	ug/l	---	ND	2.0	ug/l
	Arsenic - Dissolved	7440-38-2					ND	2.0	ug/l	---	ND	2.0	ug/l
	Barium	7440-39-3					ND	4.0	ug/l	---	45.6	4.0	ug/l
	Barium - Dissolved	7440-39-3					ND	4.0	ug/l	---	45.4	4.0	ug/l
	Beryllium	7440-41-7					ND	0.80	ug/l	---	ND	0.80	ug/l
	Beryllium - Dissolved	7440-41-7					ND	0.80	ug/l	---	ND	0.80	ug/l
	Cadmium	7440-43-9					ND	2.0	ug/l	---	ND	2.0	ug/l
	Cadmium - Dissolved	7440-43-9					ND	2.0	ug/l	---	ND	2.0	ug/l
	Calcium	7440-70-2					ND	200	ug/l	---	60900	200	ug/l
	Calcium - Dissolved	7440-70-2					ND	200	ug/l	---	58500	200	ug/l
	Chromium	7440-47-3					ND	4.0	ug/l	---	ND	4.0	ug/l
	Chromium - Dissolved	7440-47-3					ND	4.0	ug/l	---	ND	4.0	ug/l
	Cobalt	7440-48-4					ND	4.0	ug/l	---	ND	4.0	ug/l
	Cobalt - Dissolved	7440-48-4					ND	4.0	ug/l	---	ND	4.0	ug/l
	Copper	7440-50-8					ND	4.0	ug/l	---	ND	4.0	ug/l
	Copper - Dissolved	7440-50-8					ND	4.0	ug/l	---	ND	4.0	ug/l
	Iron	7439-89-6					ND	120	ug/l	---	ND	120	ug/l
	Iron - Dissolved	7439-89-6					ND	120	ug/l	---	ND	120	ug/l
	Lead	7439-92-1					ND	1.2	ug/l	---	ND	1.2	ug/l
	Lead - Dissolved	7439-92-1					ND	1.2	ug/l	---	ND	1.2	ug/l
	Magnesium	7439-95-4					ND	200	ug/l	---	17400	200	ug/l
	Magnesium - Dissolved	7439-95-4					ND	200	ug/l	---	16100	200	ug/l
	Manganese	7439-96-5					ND	8.0	ug/l	---	120	8.0	ug/l
	Manganese - Dissolved	7439-96-5					ND	8.0	ug/l	---	111	8.0	ug/l
	Nickel	7440-02-0					ND	4.0	ug/l	---	5.2	4.0	ug/l
	Nickel - Dissolved	7440-02-0					ND	4.0	ug/l	---	3.9	4.0	ug/l
	Potassium	7440-09-7					ND	200	ug/l	---	2140	200	ug/l
	Potassium - Dissolved	7440-09-7					ND	200	ug/l	---	2200	200	ug/l
	Selenium	7782-49-2					ND	10.0	ug/l	---	ND	10.0	ug/l
	Selenium - Dissolved	7782-49-2					ND	10.0	ug/l	---	ND	10.0	ug/l
	Silver	7440-22-4					ND	2.0	ug/l	---	ND	2.0	ug/l
	Silver - Dissolved	7440-22-4					ND	2.0	ug/l	---	ND	2.0	ug/l
	Sodium	7440-23-5					73.5	200	ug/l	J	7880	200	ug/l
	Sodium - Dissolved	7440-23-5					ND	200	ug/l	---	7450	200	ug/l
	Thallium	7440-28-0					ND	0.80	ug/l	---	ND	0.80	ug/l
	Thallium - Dissolved	7440-28-0					ND	0.80	ug/l	---	ND	0.80	ug/l
	Vanadium	7440-62-2					ND	4.0	ug/l	---	ND	4.0	ug/l
	Vanadium - Dissolved	7440-62-2					ND	4.0	ug/l	---	ND	4.0	ug/l
	Zinc	7440-66-6					ND	16.0	ug/l	---	ND	16.0	ug/l
	Zinc - Dissolved	7440-66-6					ND	16.0	ug/l	---	ND	16.0	ug/l

			Sample Name:	TB-07-082416			FB-04-082416				DUP-04-082416			
			Lab Sample ID:	4601191771			4601191772				4601191773			
			Sample Date:	8/24/2016			8/24/2016				8/24/2016			
					Report			**Report**				**Report**		
	Analyte	**Cas No.**	**Result**	**Limit**	**Units**	**Valid Qualifier**	**Result**	**Limit**	**Units**	**Valid Qualifier**	**Result**	**Limit**	**Units**	
	OSW-7470A													
	Mercury	7439-97-6					ND	0.20	ug/l	---	ND	0.20	ug/l	
	Mercury - Dissolved	7439-97-6					ND	0.20	ug/l	---	ND	0.20	ug/l	
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5					ND	0.010	mg/l	---	ND	0.010	mg/l	
	OSW-9056A													
	Chloride	16887-00-6					0.20	0.12	mg/l	---	7.97	0.60	mg/l	
	Sulfate	14808-79-8					ND	0.60	mg/l	---	11.5	1.20	mg/l	
Prep														
	APHA-2320B													
	Alkalinity	E-14506					ND	5.0	mg/l	---	223	5.0	mg/l	
	Bicarbonate Alkalinity as CaCO3	E-14508					5.0	5.0	mg/l	---	223	5.0	mg/l	

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119177-1

			Sample Name:				RW-3-082416				RW-15S(110-120)-082416				RW-15D(127-137)-082416			
			Lab Sample ID:				4601191774				4601191775				4601191776			
			Sample Date:				8/24/2016				8/24/2016				8/24/2016			
Analyte	Cas No.	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC														
OSW-8260C														
1,1,1-Trichloroethane	71-55-6	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	B	7.6	5.0	ug/l	B	29	5.0	ug/l	B	27	5.0	ug/l	B
Benzene	71-43-2	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	---	ND	1.0	ug/l	---	5.1	1.0	ug/l	---	8.7	1.0	ug/l	---
Carbon tetrachloride	56-23-5	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Sulfur dioxide - TIC	7446-09-5										19	---	ug/l	NJ
Tetrachloroethene	127-18-4	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---

		Sample Name:	RW-3-082416				RW-15S(110-120)-082416				RW-15D(127-137)-082416			
		Lab Sample ID:	4601191774				4601191775				4601191776			
		Sample Date:	8/24/2016				8/24/2016				8/24/2016			
Analyte	Cas No.	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
Toluene	108-88-3	---	ND	1.0	ug/l	---	1.2	1.0	ug/l	---	1.7	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Xylenes, Total	1330-20-7	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
GC/MS SVOC														
OSW-8260CSIM														
1,2,3-Trichloropropane	96-18-4	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
OSW-8270D														
1,1'-Biphenyl	92-52-4	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
1,2,4,5-Tetrachlorobenzene	95-94-3	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2,2'-oxybis[1-chloropropane]	108-60-1	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2,3,4,6-Tetrachlorophenol	58-90-2	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2,4,5-Trichlorophenol	95-95-4	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2,4,6-Trichlorophenol	88-06-2	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2,4-Dichlorophenol	120-83-2	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2,4-Dimethylphenol	105-67-9	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2,4-Dinitrophenol	51-28-5	UJ	ND	21	ug/l	UJ	ND	21	ug/l	UJ	ND	21	ug/l	UJ
2,4-Dinitrotoluene	121-14-2	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2,6-Dinitrotoluene	606-20-2	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2-Chloronaphthalene	91-58-7	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2-Chlorophenol	95-57-8	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2-Methylnaphthalene	91-57-6	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2-Methylphenol	95-48-7	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2-Nitroaniline	88-74-4	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2-Nitrophenol	88-75-5	---	ND	11	ug/l	---	ND	11	ug/l	UJ	ND	10	ug/l	---
3,3'-Dichlorobenzidine	91-94-1	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
3-Nitroaniline	99-09-2	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
4,6-Dinitro-2-methylphenol	534-52-1	---	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
4-Bromophenyl phenyl ether	101-55-3	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
4-Chloro-3-methylphenol	59-50-7	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
4-Chloroaniline	106-47-8	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
4-Chlorophenyl phenyl ether	7005-72-3	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
4-Methylphenol	106-44-5	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
4-Nitroaniline	100-01-6	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
4-Nitrophenol	100-02-7	---	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
Acenaphthene	83-32-9	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Acenaphthylene	208-96-8	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Acetophenone	98-86-2	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---

		Sample Name:	RW-3-082416				RW-15S(110-120)-082416				RW-15D(127-137)-082416			
		Lab Sample ID:	4601191774				4601191775				4601191776			
		Sample Date:	8/24/2016				8/24/2016				8/24/2016			
Analyte	Cas No.	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
Anthracene	120-12-7	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Atrazine	1912-24-9	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Benzaldehyde	100-52-7	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Benzo[g,h,i]perylene	191-24-2	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Benzo[k]fluoranthene	207-08-9	---	ND	1.1	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
Bis(2-chloroethoxy)methane	111-91-1	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Bis(2-ethylhexyl) phthalate	117-81-7	---	ND	2.1	ug/l	---	0.95	2.1	ug/l	J	ND	2.1	ug/l	---
Butyl benzyl phthalate	85-68-7	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Caprolactam	105-60-2	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Carbazole	86-74-8	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Chrysene	218-01-9	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Di-n-butyl phthalate	84-74-2	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Di-n-octyl phthalate	117-84-0	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Dibenzofuran	132-64-9	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Diethyl phthalate	84-66-2	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Dimethyl phthalate	131-11-3	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Fluoranthene	206-44-0	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Fluorene	86-73-7	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Hexachlorobutadiene	87-68-3	---	ND	1.1	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
Hexachlorocyclopentadiene	77-47-4	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Hexachloroethane	67-72-1	---	ND	1.1	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
Isophorone	78-59-1	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
N-Nitrosodi-n-propylamine	621-64-7	---	ND	1.1	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
N-Nitrosodiphenylamine	86-30-6	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Naphthalene	91-20-3	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Nitrobenzene	98-95-3	---	ND	1.1	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
Phenanthrene	85-01-8	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Phenol	108-95-2	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Pyrene	129-00-0	---	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
Benzo[a]anthracene	56-55-3	---	ND	0.053	ug/l	---	ND	0.053	ug/l	---	ND	0.052	ug/l	---
Benzo[a]pyrene	50-32-8	UJ	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ
Benzo[b]fluoranthene	205-99-2	UJ	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ
Bis(2-chloroethyl)ether	111-44-4	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3	UJ	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ
Hexachlorobenzene	118-74-1	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
Indeno[1,2,3-cd]pyrene	193-39-5	---	ND	0.053	ug/l	---	ND	0.053	ug/l	---	ND	0.052	ug/l	---
Pentachlorophenol	87-86-5	---	ND	0.21	ug/l	---	ND	0.21	ug/l	---	ND	0.21	ug/l	---
GC Other														
OSW-8082A														
PCB-1016	12674-11-2	---	ND	0.43	ug/l	---	ND	0.43	ug/l	---	ND	0.42	ug/l	---
PCB-1221	11104-28-2	---	ND	0.43	ug/l	---	ND	0.43	ug/l	---	ND	0.42	ug/l	---
PCB-1232	11141-16-5	---	ND	0.43	ug/l	---	ND	0.43	ug/l	---	ND	0.42	ug/l	---
PCB-1242	53469-21-9	---	ND	0.43	ug/l	---	ND	0.43	ug/l	---	ND	0.42	ug/l	---
PCB-1248	12672-29-6	---	ND	0.43	ug/l	---	ND	0.43	ug/l	---	ND	0.42	ug/l	---
PCB-1254	11097-69-1	---	ND	0.43	ug/l	---	ND	0.43	ug/l	---	ND	0.42	ug/l	---
PCB-1260	11096-82-5	---	ND	0.43	ug/l	---	ND	0.43	ug/l	---	ND	0.42	ug/l	---
PCB-1262	37324-23-5	---	ND	0.43	ug/l	---	ND	0.43	ug/l	---	ND	0.42	ug/l	---
PCB-1268	11100-14-4	---	ND	0.43	ug/l	---	ND	0.43	ug/l	---	ND	0.42	ug/l	---
Polychlorinated biphenyls, Total	1336-36-3	---	ND	0.43	ug/l	---	ND	0.43	ug/l	---	ND	0.42	ug/l	---

			Sample Name:				RW-3-082416				RW-15S(110-120)-082416				RW-15D(127-137)-082416			
			Lab Sample ID:				4601191774				4601191775				4601191776			
			Sample Date:				8/24/2016				8/24/2016				8/24/2016			
	Analyte	Cas No.	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
Metals															
	OSW-6020A														
	Aluminum	7429-90-5	---	ND	40.0	ug/l	---	72.0	40.0	ug/l	---	112	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	---	ND	40.0	ug/l	---	50.7	40.0	ug/l	---	51.7	40.0	ug/l	---
	Antimony	7440-36-0	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	---	ND	2.0	ug/l	---	12.7	2.0	ug/l	---	2.2	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	---	ND	2.0	ug/l	---	7.8	2.0	ug/l	---	1.2	2.0	ug/l	J
	Barium	7440-39-3	---	46.0	4.0	ug/l	---	9.6	4.0	ug/l	---	34.9	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	---	46.3	4.0	ug/l	---	7.6	4.0	ug/l	---	30.9	4.0	ug/l	---
	Beryllium	7440-41-7	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	---	60000	200	ug/l	---	63600	200	ug/l	---	141000	200	ug/l	---
	Calcium - Dissolved	7440-70-2	---	58800	200	ug/l	---	35100	200	ug/l	---	106000	200	ug/l	---
	Chromium	7440-47-3	---	ND	4.0	ug/l	---	1.4	4.0	ug/l	J	2.8	4.0	ug/l	J
	Chromium - Dissolved	7440-47-3	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---	2.0	4.0	ug/l	J
	Cobalt	7440-48-4	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	---	ND	4.0	ug/l	---	1.9	4.0	ug/l	J	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	---	ND	120	ug/l	---	ND	120	ug/l	---	101	120	ug/l	J
	Iron - Dissolved	7439-89-6	---	ND	120	ug/l	---	ND	120	ug/l	---	99.6	120	ug/l	J
	Lead	7439-92-1	---	ND	1.2	ug/l	---	0.58	1.2	ug/l	J	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	---	16700	200	ug/l	---	2150	200	ug/l	---	249	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	---	16000	200	ug/l	---	1480	200	ug/l	---	183	200	ug/l	J
	Manganese	7439-96-5	---	118	8.0	ug/l	---	ND	8.0	ug/l	---	ND	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	---	115	8.0	ug/l	---	ND	8.0	ug/l	---	ND	8.0	ug/l	---
	Nickel	7440-02-0	---	5.3	4.0	ug/l	---	1.8	4.0	ug/l	J	5.7	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	J	3.6	4.0	ug/l	J	2.6	4.0	ug/l	J	5.9	4.0	ug/l	---
	Potassium	7440-09-7	---	2100	200	ug/l	---	9600	200	ug/l	J	27500	200	ug/l	---
	Potassium - Dissolved	7440-09-7	---	2190	200	ug/l	---	12200	200	ug/l	---	28000	200	ug/l	---
	Selenium	7782-49-2	---	ND	10.0	ug/l	---	1.4	10.0	ug/l	J	4.1	10.0	ug/l	J
	Selenium - Dissolved	7782-49-2	---	ND	10.0	ug/l	---	2.1	10.0	ug/l	J	5.2	10.0	ug/l	J
	Silver	7440-22-4	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	---	7630	200	ug/l	---	26200	200	ug/l	---	81800	200	ug/l	---
	Sodium - Dissolved	7440-23-5	---	7500	200	ug/l	---	32500	200	ug/l	---	83100	200	ug/l	---
	Thallium	7440-28-0	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	---	ND	4.0	ug/l	---	20.0	4.0	ug/l	---	11.0	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	---	ND	4.0	ug/l	---	24.9	4.0	ug/l	---	9.0	4.0	ug/l	---
	Zinc	7440-66-6	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---

		Sample Name:		RW-3-082416				RW-15S(110-120)-082416				RW-15D(127-137)-082416			
		Lab Sample ID:		4601191774				4601191775				4601191776			
		Sample Date:		8/24/2016				8/24/2016				8/24/2016			
	Analyte	**Cas No.**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
OSW-7470A															
	Mercury	7439-97-6	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry															
OSW-9012B															
	Cyanide, Total	57-12-5	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
OSW-9056A															
	Chloride	16887-00-6	---	7.94	0.60	mg/l	---	12.6	0.60	mg/l	---	27.8	2.40	mg/l	---
	Sulfate	14808-79-8	---	11.5	1.20	mg/l	---	138	6.00	mg/l	---	219	12.0	mg/l	---
Prep															
APHA-2320B															
	Alkalinity	E-14506	---	225	5.0	mg/l	---	40.2	5.0	mg/l	---	350	10.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	---	225	5.0	mg/l	---	ND	5.0	mg/l	---	ND	10.0	mg/l	---

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119177-1

		Sample Name:	RW-4(333-343)-082416				RW-4(393-403)-082416				RW-4A(113-123)-082416			
		Lab Sample ID:	4601191777				4601191778				4601191779			
		Sample Date:	8/24/2016				8/24/2016				8/24/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	10	5.0	ug/l	B	7.0	5.0	ug/l	B	5.8	5.0	ug/l	B
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Sulfur dioxide - TIC	7446-09-5												
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---

	Sample Name:	RW-4(333-343)-082416				RW-4(393-403)-082416				RW-4A(113-123)-082416			
	Lab Sample ID:	4601191777				4601191778				4601191779			
	Sample Date:	8/24/2016				8/24/2016				8/24/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
GC/MS SVOC													
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
OSW-8270D													
1,1'-Biphenyl	92-52-4	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
1,2,4,5-Tetrachlorobenzene	95-94-3	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2,2'-oxybis[1-chloropropane]	108-60-1	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2,3,4,6-Tetrachlorophenol	58-90-2	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2,4,5-Trichlorophenol	95-95-4	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2,4,6-Trichlorophenol	88-06-2	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2,4-Dichlorophenol	120-83-2	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2,4-Dimethylphenol	105-67-9	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2,4-Dinitrophenol	51-28-5	ND	21	ug/l	UJ	ND	21	ug/l	UJ	ND	21	ug/l	UJ
2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2-Chloronaphthalene	91-58-7	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2-Chlorophenol	95-57-8	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2-Methylnaphthalene	91-57-6	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2-Methylphenol	95-48-7	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2-Nitroaniline	88-74-4	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
2-Nitrophenol	88-75-5	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
3,3'-Dichlorobenzidine	91-94-1	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
3-Nitroaniline	99-09-2	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
4-Bromophenyl phenyl ether	101-55-3	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
4-Chloro-3-methylphenol	59-50-7	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
4-Chloroaniline	106-47-8	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
4-Chlorophenyl phenyl ether	7005-72-3	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
4-Methylphenol	106-44-5	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
4-Nitroaniline	100-01-6	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
Acenaphthene	83-32-9	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Acenaphthylene	208-96-8	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Acetophenone	98-86-2	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---

		Sample Name:	RW-4(333-343)-082416				RW-4(393-403)-082416				RW-4A(113-123)-082416			
		Lab Sample ID:	4601191777				4601191778				4601191779			
		Sample Date:	8/24/2016				8/24/2016				8/24/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
Anthracene	120-12-7	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Benzaldehyde	100-52-7	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Benzo[g,h,i]perylene	191-24-2	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Benzo[k]fluoranthene	207-08-9	ND	1.1	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
Bis(2-chloroethoxy)methane	111-91-1	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Butyl benzyl phthalate	85-68-7	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Caprolactam	105-60-2	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Carbazole	86-74-8	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Di-n-butyl phthalate	84-74-2	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Di-n-octyl phthalate	117-84-0	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Dibenzofuran	132-64-9	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Diethyl phthalate	84-66-2	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Dimethyl phthalate	131-11-3	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Fluoranthene	206-44-0	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Fluorene	86-73-7	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Hexachlorobutadiene	87-68-3	ND	1.1	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
Hexachlorocyclopentadiene	77-47-4	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Hexachloroethane	67-72-1	ND	1.1	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
Isophorone	78-59-1	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
N-Nitrosodi-n-propylamine	621-64-7	ND	1.1	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
N-Nitrosodiphenylamine	86-30-6	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Naphthalene	91-20-3	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Nitrobenzene	98-95-3	ND	1.1	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
Phenanthrene	85-01-8	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Phenol	108-95-2	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
Pyrene	129-00-0	ND	11	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM													
Benzo[a]anthracene	56-55-3	ND	0.053	ug/l	---	ND	0.053	ug/l	---	ND	0.052	ug/l	---
Benzo[a]pyrene	50-32-8	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ
Benzo[b]fluoranthene	205-99-2	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ
Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ
Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.053	ug/l	---	ND	0.053	ug/l	---	ND	0.052	ug/l	---
Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.21	ug/l	---	ND	0.21	ug/l	---
GC Other													
OSW-8082A													
PCB-1016	12674-11-2	ND	0.42	ug/l	---	ND	0.41	ug/l	---	ND	0.41	ug/l	---
PCB-1221	11104-28-2	ND	0.42	ug/l	---	ND	0.41	ug/l	---	ND	0.41	ug/l	---
PCB-1232	11141-16-5	ND	0.42	ug/l	---	ND	0.41	ug/l	---	ND	0.41	ug/l	---
PCB-1242	53469-21-9	ND	0.42	ug/l	---	ND	0.41	ug/l	---	ND	0.41	ug/l	---
PCB-1248	12672-29-6	ND	0.42	ug/l	---	ND	0.41	ug/l	---	ND	0.41	ug/l	---
PCB-1254	11097-69-1	ND	0.42	ug/l	---	ND	0.41	ug/l	---	ND	0.41	ug/l	---
PCB-1260	11096-82-5	ND	0.42	ug/l	---	ND	0.41	ug/l	---	ND	0.41	ug/l	---
PCB-1262	37324-23-5	ND	0.42	ug/l	---	ND	0.41	ug/l	---	ND	0.41	ug/l	---
PCB-1268	11100-14-4	ND	0.42	ug/l	---	ND	0.41	ug/l	---	ND	0.41	ug/l	---
Polychlorinated biphenyls, Total	1336-36-3	ND	0.42	ug/l	---	ND	0.41	ug/l	---	ND	0.41	ug/l	---

		Sample Name:	RW-4(333-343)-082416				RW-4(393-403)-082416				RW-4A(113-123)-082416			
		Lab Sample ID:	4601191777				4601191778				4601191779			
		Sample Date:	8/24/2016				8/24/2016				8/24/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	942	40.0	ug/l	---	448	40.0	ug/l	---	83.8	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	850	40.0	ug/l	---	31.6	40.0	ug/l	J	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	1.1	2.0	ug/l	J	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	0.83	2.0	ug/l	J	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	21.8	4.0	ug/l	---	15.4	4.0	ug/l	---	16.2	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	15.4	4.0	ug/l	---	13.0	4.0	ug/l	---	16.2	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	58900	200	ug/l	---	18400	200	ug/l	---	13500	200	ug/l	---
	Calcium - Dissolved	7440-70-2	30000	200	ug/l	---	17400	200	ug/l	---	13800	200	ug/l	---
	Chromium	7440-47-3	40.8	4.0	ug/l	---	1.7	4.0	ug/l	J	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	37.6	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	1.7	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	1.4	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	ND	120	ug/l	---	279	120	ug/l	---	ND	120	ug/l	---
	Iron - Dissolved	7439-89-6	ND	120	ug/l	---	ND	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1	ND	1.2	ug/l	---	0.38	1.2	ug/l	J	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	ND	200	ug/l	---	6320	200	ug/l	---	4750	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	ND	200	ug/l	---	5690	200	ug/l	---	4770	200	ug/l	---
	Manganese	7439-96-5	ND	8.0	ug/l	---	6.0	8.0	ug/l	J	ND	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	ND	8.0	ug/l	---	ND	8.0	ug/l	---	ND	8.0	ug/l	---
	Nickel	7440-02-0	ND	4.0	ug/l	---	1.8	4.0	ug/l	J	72.2	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	41.2	4.0	ug/l	---
	Potassium	7440-09-7	5230	200	ug/l	---	3310	200	ug/l	---	1450	200	ug/l	---
	Potassium - Dissolved	7440-09-7	5280	200	ug/l	---	1970	200	ug/l	---	1580	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	0.79	10.0	ug/l	J	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	19800	200	ug/l	---	8280	200	ug/l	---	6410	200	ug/l	---
	Sodium - Dissolved	7440-23-5	18400	200	ug/l	---	7180	200	ug/l	---	6180	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	12.1	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	10.8	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	9.7	16.0	ug/l	J	14.7	16.0	ug/l	J
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---

		Sample Name:	RW-4(333-343)-082416				RW-4(393-403)-082416				RW-4A(113-123)-082416			
		Lab Sample ID:	4601191777				4601191778				4601191779			
		Sample Date:	8/24/2016				8/24/2016				8/24/2016			
				Report		**Valid**		**Report**		**Valid**		**Report**		**Valid**
	Analyte	**Cas No.**	**Result**	**Limit**	**Units**	**Qualifier**	**Result**	**Limit**	**Units**	**Qualifier**	**Result**	**Limit**	**Units**	**Qualifier**
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	5.38	0.24	mg/l	---	1.76	0.12	mg/l	---	1.74	0.12	mg/l	---
	Sulfate	14808-79-8	27.5	1.20	mg/l	---	18.9	0.60	mg/l	---	16.9	0.60	mg/l	---
Prep														
	APHA-2320B													
	Alkalinity	E-14506	161	10.0	mg/l	---	68.3	5.0	mg/l	---	50.3	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	ND	10.0	mg/l	---	68.3	5.0	mg/l	---	50.3	5.0	mg/l	---

APPENDIX 4

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119177-1

		Sample Name:	TB-07-082416				FB-04-082416				DUP-04-082416				RW-3-082416				RW-15S(110-120)-082416			
		Lab Sample ID:	4601191771				4601191772				4601191773				4601191774				4601191775			
		Sample Date:	8/24/2016				8/24/2016				8/24/2016				8/24/2016				8/24/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC																						
OSW-8260C																						
Acetone	67-64-1										9.4	5.0	ug/l	B	7.6	5.0	ug/l	B	29	5.0	ug/l	B
Sulfur dioxide - TIC	7446-09-5																					
Vinyl chloride	75-01-4		ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
GC/MS SVOC																						
OSW-8270D																						
2,4-Dinitrophenol	51-28-5						ND	21	ug/l	UJ	ND	21	ug/l	UJ	ND	21	ug/l	UJ	ND	21	ug/l	UJ
2-Nitrophenol	88-75-5																		ND	11	ug/l	UJ
OSW-8270DSIM																						
Benzo[a]pyrene	50-32-8						ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ
Benzo[b]fluoranthene	205-99-2						ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ
Bis(2-chloroethyl)ether	111-44-4						ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3						ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ
Metals																						
OSW-6020A																						
Potassium	7440-09-7																		9600	200	ug/l	J

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119177-1

		Sample Name:	RW-15D(127-137)-082416				RW-4(333-343)-082416				RW-4(393-403)-082416				RW-4A(113-123)-082416			
		Lab Sample ID:	4601191776				4601191777				4601191778				4601191779			
		Sample Date:	8/24/2016				8/24/2016				8/24/2016				8/24/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC																	
OSW-8260C																	
Acetone	67-64-1	27	5.0	ug/l	B	10	5.0	ug/l	B	7.0	5.0	ug/l	B	5.8	5.0	ug/l	B
Sulfur dioxide - TIC	7446-09-5	19	---	ug/l	NJ												
Vinyl chloride	75-01-4	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
GC/MS SVOC																	
OSW-8270D																	
2,4-Dinitrophenol	51-28-5	ND	21	ug/l	UJ	ND	21	ug/l	UJ	ND	21	ug/l	UJ	ND	21	ug/l	UJ
2-Nitrophenol	88-75-5																
OSW-8270DSIM																	
Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ
Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ
Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ
Metals																	
OSW-6020A																	
Potassium	7440-09-7																

APPENDIX 5

September 12, 2016

Tim Roeper
Cornerstone EG
100 Crystal Run Road
Suite 101
Middletown, NY 10941

CADENA project ID: E203361
Project: Ford Ringwood Mines Project
Project number:
Client project scope reference: Sample COC only was used to define project analytical requirements.
Laboratory: TestAmerica - Edison
Laboratory submittal: 119177-1
Sample date: 2016-08-24
Report received by CADENA: 2016-09-12
Initial Data Verification completed by CADENA: 2016-09-13

The following minor QC exceptions or missing information were noted:

TBK - GCMS VOC TRIP blanks had detections above the RL for the following analytes: ACETONE. The following client sample results should be considered to be non-detect at the concentration reported and qualified with B flags: ACETONE - samples -003, -004, -005, -006, -007, -008, -009. NOTE: Sample dilution factors are not included when assigning qualification based on trip blank detections.

TIC - GCMS VOC Tentatively Identified Compounds (TIC's) detected results should be considered to be estimated and qualified with NJ flags.

LCS - GCMS VOC QC batch 387388 LCS recoveries were outliers biased low for the following analytes: VINYL CHLORIDE. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: VINYL CHLORIDE - ALL SAMPLE RESULTS.

MSD - GCMS SVOC sample -005 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased low for the following analytes: 2-NITROPHENOL. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

LCS - GCMS SVOC-SIM QC batch 387456 LCS recoveries were outliers biased low for the following analytes: BENZO(B)FLUORANTHENE, BENZO(A)PYRENE, DIBENZO(AH)ANTHRACENE. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: BENZO(B)FLUORANTHENE, BENZO(A)PYRENE, DIBENZO(AH)ANTHRACENE - ALL SAMPLE RESULTS.

GCMS SVOC-SIM QC batch 388366, GCMS SVOC QC batch 388683, GCMS VOC QC batch CCV response outliers as noted in the laboratory submittal case narrative were not used to qualify client sample results as part of this level 2 data package verification review.

GCMS SVOC sample -005 MS or MSD recoveries but not both or RPD only were outliers for 2,4-DICHLOROPHENOL, 4-NITROPHENOL, BENZO(K)FLUORANTHENE so client sample results were not qualified based on these QC outliers alone.

GCMS SVOC sample -005 surrogate recovery outliers (1 of 3 acid outlier biased high) did not result in qualification of client sample data.

METALS sample -005 duplicate RPD outliers were not used to qualify results for ALUMINUM since the relative difference between replicates was acceptable based on low concentration criteria.

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

8 Water sample(s) were analyzed for GCMS VOC, GCMS SVOC, GC Other, Metals, General Chemistry and MISC parameter(s). 1 Trip blank was analyzed for GCMS VOC parameters.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, LCS/LCD RPD, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Qualifiers added during verification have been added to the electronic data which is available for download from the CADENA CLMS. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory analytical report access the CADENA CLMS at http://clms.cadenaco.com/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
J-	The result is an estimated quantity, but the result may be biased low.
JB	NON-DETECT AT THE CONCENTRATION REPORTED AND ESTIMATED
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
JUB	NON-DETECT AT THE REPORTING LIMIT AND ESTIMATED
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

460-119177 Chain of Custody

CHAIN OF CU

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

09/12/2016

Name (for report and invoice): Tim Reeper	Samplers Name (Printed): Robert Lautenberg	Site/Project Identification: Ford - Ringwood
Company: Cornerstone Environmental Group	P. O. #: 140802-015	State (Location of site): NJ: X NY: Other:
		Regulatory Program: DKQP:
Address: 100 Crystal Run Rd, Suite 101	Analysis Turnaround Time: Standard X	
City: Middletown State: NY 10941	Rush Charges Authorized For: 2 Week, 1 Week, Other	
Phone: 845 695 0200 Fax:		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + 15 TICs 8260B	TCL SVOC + 15 TICs 8270C	TAL Metals - Total & Filtered Cr6+/Iron	PCBs	Alkalinity, Total as CaCO3 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	Sample Numbers
TB-07-082416	8/24/16	—	BW	4	✓								1
FB-04-082416	8/24/16	07:45	BW	13	✓	✓	✓	✓	✓	✓	✓	✓	2
Dup-04-082416	8/24/16	12:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	3
RW-3-082416	8/24/16	09:35	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	4
RW-15S(110-120)-082416	8/24/16	11:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	5
RW-15S(110-120)-082416 DUP	8/24/16	11:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	6
RW-15S(110-120)-082416 MS/D	8/24/16	11:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	6
RW-15D (127-137)-082416	8/24/16	13:40	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	6
RW-4(333-343)-082416	8/24/16	14:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	7
RW-4(393-403)-082416	8/24/16	15:35	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	8

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____ Soil: Water:

LAB USE ONLY
Project No:
Job No: 119177
Sample Numbers

Special Instructions Do not report 1,4 Dioxane for VOCs + SVOC's

Water Metals Filtered (Yes/No)? No

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/25/16 0920	1) Tusha Smith	TA
2) Tusha Smith	TA	8/25/16 1345	2)	TA Edison
3)			3)	8/20/16
4)			4)	545

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578) NOCs #7 1.2, 1.8, 1.0, 1.3

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice): Tim Roeper	Samplers Name (Printed): Robert Lautenberg	Site/Project Identification: Ford - Ringwood
Company: Cornerstone Environmental Group	P.O. #: 140802-015	State (Location of site): NJ: [X] NY: [ ] Other:
		Regulatory Program: DKQP: [ ]
Address: 100 Crystal Run Rd, Suite 101	Analysis Turnaround Time: Standard [X]; Rush Charges Authorized For: 2 Week [ ] 1 Week [ ] Other [ ] ____	LAB USE ONLY — Project No:
City: Middletown State: Ny 10941		Job No: 119177
Phone: 845 695 0200 Fax:		

ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC +15 TICS 8260B	TCL SVOC + 15 TICS 8270C	TAL Metals - Total + Filtered 6010B/7470A	PCB's	Alkalinity, Total as $CaCO_3$ 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide				Sample Numbers
RW-4A(113-123)-082416	8/24/16	1610	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				9

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other ______, 7 = Other ______ Soil: Water:

Special Instructions: Do not report 1,4 Dioxane for VOC's + SVOC's

Water Metals Filtered (Yes/No)? NO

Relinquished by	Company	Date / Time	Received by	Company
1) [signature]	Cornerstone	8/25/16 0920	1) Lusha Smith	TA
2) Lusha Smith	TA	8/25/16 1345	2) [signature]	TA Edison
3)			3)	
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0715)

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	criteria reference	general observations	GCMS VOC	GCMS VOC SIM	GCMS SVOC	GCMS SVOC SIM	GC PCBs	ICP - MS METALS (T/D)	Manual Cold Vaper Mercury (T/D)	TOTAL CYANIDE	HPLC/IC - ANIONS	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS												
SOW available?			2009	2009	2009	2009	2009	2009	2009	2009	2009	2009
Scope validation criteria referenced			CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics
Lab certifications required			New Jersey	New Jersey	New Jersey	New Jersey	New Jersey	New Jersey	New Jersey	New Jersey	New Jersey	New Jersey
Lab single blind PE samples completed			NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
SAMPLING ISSUES			NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS												
holding times			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
preservation			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
temperature of cooler - degrees C			1.0, 1.2, 1.3, 1.8	1.0, 1.2, 1.3, 1.8	1.0, 1.2, 1.3, 1.8	1.0, 1.2, 1.3, 1.8	1.0, 1.2, 1.3, 1.8	1.0, 1.2, 1.3, 1.8	1.0, 1.2, 1.3, 1.8	1.0, 1.2, 1.3, 1.8	1.0, 1.2, 1.3, 1.8	1.0, 1.2, 1.3, 1.8
COC discrepancies			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
sample integrity (containers, amounts)			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
ANALYTICAL/PREP GENERAL												
prep batch	LAB		NA	NA	387456	387456	387586	387304, 388822(D) 388515 (T)	387413, 388137	388799	NA	NA
prep date	LAB		NA	NA	29-Aug	29-Aug	30-Aug	8/28/2016, 9/2/2016	29-Aug	6-Sep	NA	NA
analytical batch	LAB		387388	387733, 387932	388683	388366	387810	388293, 389607(D) 388832, 889269 (T),	387486, 388212	388866	389346	388903
analytical date	LAB		29-Aug	8/31/2016 9/2 MS/MSD	5-Sep	4-Sep	31-Aug	09/02/2016 - 09/09/2016	8/31/2016, 9/1/2016	6-Sep	9/8/2016, 9/9/2016	6-Sep
instrument ID	LAB		CVOAMS12	CVOAMS11	CBNAMS6	CBNAMS4	CPESTGC9	ICPMS2	LEEMAN6	LATHAT3	IC A	NOEQUIP
Instrument Tune	METHOD	tune	OK	OK	OK	OK	NA	OK	NA	NA	NA	NA
Instrument Performance Checks	METHOD	tailing, degradation	NA	NA	OK	OK	NA	NA	NA	NA	NA	NA
ICAL (Initial Calibration Curve), Curve ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	57544	57303	57159, 57491	57611	57495, -96, 57501, -02-07, -08, -13, -14, -19, -20, -25, -26, -31, -32, -37, -38	16101s00.B, 16103p00.B, 16107t00.B, 16109o00.B	387874hg1, 388129hg1	OM_9-6_2016	57277	NA
ICAL (Initial Calibration Curve) Date	METHOD		23-Aug	19-Aug	8/9/2016, 8/31/2016	30-Aug	23-Aug	9/1, 9/3, 9/7, 9/9	8/31, 9/1	6-Sep	17-Aug	NA
ICV (Initial Calibration Verification)	METHOD	max 30%	OK	OK	No Raw Data	No Raw Data	OK	OK	OK	OK	OK	NA
CCV (Continuing Calibration Verification)	METHOD	max 20%/50%	387388-CBM	OK	388683-LOW-24DNP	388366-LOW-B2CEE	OK	OK	OK	OK	OK	NA
Target Compound Lists	SCOPE/COC		TCL + TICs	1,2-dibromo-3-chloropropane, 1,2,3-trichloropropane and EDP	TCL	PAH,PCP,HCB,B2CEE	PCBs	Dissolved/Total Target Analyte List	Mercury	Total Cyanide	Sulfate, Chloride	Bicarbonate, Alkalinity as $CaCl_2$ Alkalinity
Reporting Limits (RL/PQL/LOQ) compliant	SCOPE	1.0 ug/l	1, 5, 10ug/l	0.2 - 0.3 ug/l	Varies,1.0 and up	.02 - .05 ug/l	0.40 ug/l	Varies	0.2 ug/l	0.1 mg/l	0.1 - 6 ug/l	5.0 mg/l
Blanks- method/calibration	NFG		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
LCS (Laboratory Control Spikes)	lab control limits	by method	70-130%, vinyl chloride low	40-160%, 70-130%, 20%	387456-LOW-BBF,BAP,DAHA	20-160, 70-130, 20%	40-140%, 20%	80 - 120%	80 - 120%	80-120%	90- 110%, 15%	90.5-107.9%
MS/MSD (Matrix Spikes)	lab control limits	by method	40-160%, 70-130%, 20%	40-160%, 70-130%, 20%	SAMP-005-LOW 2NP	20-160, 70-130, 20%	40-140%, 20%	75 - 125%	75 - 125%	75-125%, 20%	90- 110%, 15%	NA
Sample duplicates	lab control limits	NA	NA	NA	NA	NA	NA	OK	OK	OK	OK	OK
Internal standard reponses/RRT	METHOD	50-200%	OK	OK	OK	OK	OK	OK	NA	NA	NA	NA
Surrogate recoveries	lab control limits		OK	OK	OK	NA	OK	NA	NA	NA	NA	NA
Qualitative criteria met	METHOD		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TICS (Tentatively Identified Compounds)	METHOD		NJ Flag	NA	NA	NA	NA	NA	NA	NA	NA	NA
TIC blanks	NFG		OK	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trip blanks	NFG		Acetone above RL, Bflags	OK	NA	NA	NA	NA	NA	NA	NA	NA
Field blanks	NFG		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Field duplicates	SCOPE		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Post Digestion Spikes (PDS)	METHOD		NA	NA	NA	NA	NA	SAMP-005-K	OK	NA	NA	NA
Serial Dilution (SD)	METHOD		NA	NA	NA	NA	NA	OK	OK	NA	NA	NA
CRQL checks performed?	SCOPE		NA	NA	NA	NA	NA	OK	NA	NA	NA	NA
E flagging required	LAB		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GENERAL QC TRACKING												
Control Limits	SCOPE	see above	DKQP	DKQP	DKQP	DKQP	DKQP	DKQP	DKQP	DKQP	DKQP	DKQP
Certificates of Analysis for primary standards	VALIDATOR		NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED
Working/Intermediate standard prep calculations	VALIDATOR	prep log	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED
Prep technique	not specified	VARIES	5030	5030	3510C	3510C	3510C	3010A	7470A	9012B	NA	SM 2320B
Prep sample volumes/mass	not specified	VARIES	5 mL	5 mL	250/2 mL	250/2 mL	250/1 mL	50 mL	50 mL	5 mL	10 mL	50 mL
OVERALL												
Data Reportable?			YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

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ANALYTICAL DATA VALIDATION REPORT
Ringwood Mines/Landfill
Ford Motor Company
PROJECT 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED August 25, 26, 2016
DATA PACKAGE RECEIVED September 12, 2016
SUBMITTAL #: 460-119270-1

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TABLE OF CONTENTS

LISTS OF APPNEDICES

(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by TestAmerica-Edison Laboratory the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	GCMS VOC	GCMS VOC SIM	OSW-SVOC	GCMS SVOC SIM	OSW-PCB	Dissolved Metals by ICP MS	Total Metals by ICP MS	Mercury (Manual Cold Vapor) (D)	Mercury (Manual Cold Vapor) (T)	TOTAL CYANIDE	SULFATE CHLORIDE	Alkalinity
4601192701	TB-08-082516	8/25/2016	X	X										
46011927010	RW-10(185-195)-082616	8/26/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011927011	RW-10A(75-85)-082616	8/26/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601192702	RW-4A(62-72)-082516	8/25/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601192703	RW-13(71-91)-082516	8/25/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601192704	RW-12(130-140)-082516	8/25/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601192705	RW-8(204-214)-082516	8/25/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601192706	RW-8(163-173)-082516	8/25/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601192707	RW-13(100-120)-082616	8/26/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601192708	RW-13(150-170)-082616	8/26/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601192709	Dup-05-082616	8/26/2016	X	X	X	X	X	X	X	X	X	X	X	X

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	***Reference Method***	***Analyte Listing***
GCMS VOC Organics	OSW-8260C	Target Compound List
GCMS VOC Organics-SIM	OSW-8260C-SIM	1,2-Dibromo-3-chloropropane and EDB
Semi-Volatile Organics	OSW-8270D	Target Compound List
Semi-Volatile Organics	OSW-8270D/SIM	PAH, PCP, HCB, B2CEE
GC ECD Semi-Volatiles	OSW-8082A	PCB's
Metals by ICP/MS	OSW-6020A	Target Analyte List(total,dissolved)
Mercury by Cold Vapor	OSW-7470A	Mercury(total, dissolved)
Total Cyanide	OSW-9012B	Total Cyanide
Ion Chromatography	OSW-9056A	Chloride, Sulfate
Alkalinity	APHA-2320B	Alkalinity, Bicarbonate Alkalinity

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.

EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

Additional data qualifications based on review of the level 4 data package using laboratory criteria provided if required are noted below. Qualifications that would be required based on comparison to NFG criteria are noted where applicable. These qualifications would be added to the database and associated summary tables in the appendices if applicable.

GC/MS VOC

CCV outliers in analytical batch 387955 CCV response outlier was low and outside the specified criteria for BROMOFORM, DICHLORODIFLUOROMETHANE, TRICHLOROFLUOROMETHANE Client sample results for this analytes should be considered to be estimated and qualified with a UJ flags if non-detect.

GC/MS SVOC

CCV outliers in analytical batch 388683 CCV response outlier was low and outside the specified criteria for 2,4-DINITROPHENOL. Client sample results for this analytes should be considered to be estimated and qualified with a UJ flags if non-detect.

GC/MS SVOC SIM

CCV outliers in analytical batch 388366 CCV response outlier was low and outside the specified criteria for BIS(2CHLOROETHYL)ETHER. Client sample results for this analytes should be considered to be estimated and qualified with a UJ flags if non-detect.

The following observations **DID NOT** result in qualification but were noted during the validation review:

GCMS VOC SIM and HPLC/IC QC did not include MS/MSD recovery data.

ALL PARAMETERS

Certificates of analysis for standards and all working/primary standard concentrations that are required to verify calibration standard concentrations and spike levels were not available in the laboratory data package for review.

GC/MS SVOC and SVOC SIM

Initial Calibration Verification (ICV) raw data was not available for reconstruction/re-calculation of ICV results.

GC/MS VOC

CCV outliers in analytical batch 387955 CCV were high and outside the specified criteria for 1,1,2,2-TRICHLOROETHANE. Associated client results were non-detect so qualification was not required based on the high bias QC outliers.

VERIFICATION SUMMARY

The following qualifications and associated data flags were applied based on the initial level 2 review of this data package.

TBK - GCMS VOC TRIP blanks had detections below the RL for the following analytes: ACETONE, METHYLENE CHLORIDE. The following client sample results should be considered to be non-detect at the RL and qualified with UB flags: ACETONE - sample -008; METHYLENE CHLORIDE - samples -003, -007. The following client sample results should be considered to be non-detect at the concentration reported and qualified with B flags: ACETONE - samples -002, -003, -004, -005, -006, -009, -010, -011. NOTE: Sample dilution factors are not included when assigning qualification based on trip blank detections.

LCS - GCMS VOC QC batch 387955 LCS recoveries were outliers biased low for the following analytes: BROMOFORM. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: BROMOFORM - ALL SAMPLE RESULTS.

LCS - GCMS SVOC-SIM QC batch 387456 LCS recoveries were outliers biased low for the following analytes: BENZO(A)PYRENE, BENZO(B)FLUORANTHENE, DIBENZO(AH)ANTHRACENE. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: BENZO(A)PYRENE, BENZO(B)FLUORANTHENE, DIBENZO(AH)ANTHRACENE - ALL SAMPLE RESULTS.

METALS QC batch 389580, 389608, 389017 and GCMS SVOC QC batch 388683 and GCMS VOC QC batch 387955 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

2.0 VOLATILE ORGANIC COMPOUNDS (VOCs) – METHOD SW846 8260C and SIM ANALYSIS

See Attachments for submittal-specific review summary of QC requirements noted below.

The target analyte list was defined by the client-project as TCL List OLM4.2 for 8260C full scan and as noted in section 1 above for SIM analysis.

2.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) VOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS VOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS VOCs

Initial calibration data for VOCs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS VOCs

Initial calibration data for VOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary..

2.2 CONTINUING CALIBRATION – GC/MS VOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless otherwise noted in the executive summary noted above and qualified in the data tables. Target analytes associated with CCV compounds outside of method criteria were qualified as estimated with J flags if sample results were non-detect and estimated with UJ flags if CCV bias was low and sample results was non-detect and J flags if sample results were detections. Non-detect results were not qualified if CCV bias was high and sample results were non-detect.

2.3 INTERNAL STANDARDS – GC/MS VOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS VOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS VOCs

A laboratory control sample (LCS) was prepared and analyzed for VOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless otherwise noted in the executive summary and as qualified the QAR and ARS data tables found in the appendices.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS VOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS VOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS VOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS VOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS VOCs

Tentatively Identified Compounds (TIC) searches were associated with each sample analysis and should all be considered to be estimated and qualified with NJ flags when detected.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS VOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D and SIM analysis – GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

3.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

3.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

3.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

3.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

3.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

3.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

3.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) was prepared and analyzed for the target analyte SVOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

3.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

3.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

3.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

3.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

3.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

3.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal..

4.0 POLYCHLORINATED BIPHENYLS (PCBs) – METHOD SW846 8082A

The target analyte list was defined by the client as the standard 7 aroclors.

4.1 CALIBRATION – GAS CHROMATOGRAPH-ECD

4.1.1 TUNING AND MASS CALIBRATION – PCB

Not applicable for this analysis.

4.1.2 INITIAL CALIBRATION – PCB

Initial calibration data for PCBs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

4.1.3 INITIAL CALIBRATION VERIFICATION – PCB

Initial calibration verification (ICV) standards for PCB analyses were reviewed and met criteria specified by the laboratory with no exceptions.

4.2 CONTINUING CALIBRATION – PCBs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary.

4.3 INTERNAL STANDARDS – PCB

Internal standard (IS) data were reviewed and met criteria unless noted otherwise in verification/validation summary. (NOTE: Lab quantitation approach DID use internal standard quantitation for this submittal).

4.4 SURROGATE SPIKE RECOVERIES – PCB

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

4.5 LABORATORY CONTROL SAMPLE ANALYSES - PCB

A laboratory control sample (LCS) was prepared and analyzed for PCBs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

4.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - PCB

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

CADENA does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

4.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - PCB

There were no field duplicate comparisons performed as part of this validation request.

4.8 EXTRACT CLEANUP - PCB

Extract cleanups were performed in accordance with laboratory SOP's and as noted in level 4 data package prep logs.

4.9 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - PCB

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

4.10 TENTATIVELY IDENTIFIED COMPOUNDS - PCB

Not requested for this analytical procedure.

4.11 BLANKS – METHOD/FIELD/CALIBRATION - PCB

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

5.0 HPLC/IC – METHOD SW846 9056A – CHLORIDE AND SULFATE

5.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

5.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

5.3 CONTINUTING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

5.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

5.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

5.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

5.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

5.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

6.0 METALS – ICPMS by Method 6020A TOTAL AND DISSOLVED and Mercury by Method 7470A

The following samples provided in this SDG underwent a Level IV review for either/and metals or mercury analyses:

- Method 6020A: ALL
- Method 7470A: ALL

6.1 ICP/MS TUNING AND MASS CALIBRATION

Instrument tuning data were reviewed. Tuning elements were analyzed. All tuning criteria were met for the analyses, indicating proper optimization of the instrumentation.

6.2 INITIAL CALIBRATION

Initial calibration data for metals and mercury were reviewed and met the criteria for linearity of response without exception.

6.3 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards for metals and mercury analyses were reviewed and met criteria unless otherwise noted in verification/validation summary section of this document.

An initial calibration blank (ICB) was analyzed for metals and mercury analyses. Metals and mercury were reported as non-detect in each ICB analysis unless noted otherwise in verification/validation summary.

6.4 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for metals and mercury analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

6.5 INTERFERENCE CHECK STANDARD

The interference check standard results were reviewed and found to meet criteria.

6.6 INTERNAL STANDARDS

Internal standard (IS) data were reviewed and found to meet criteria unless noted otherwise in verification/validation summary.

6.7 LABORATORY CONTROL SAMPLE ANALYSIS

A laboratory control sample (LCS) was prepared and analyzed for metals and mercury. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

6.8 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE (MS/MSD) ANALYSES

The MS/MSD recoveries and RPD's were either not performed using a client sample or were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

6.9 CONTRACT REQUIRED DETECTION LIMIT STANDARD ANALYSES

Each contract required detection limit (CRDL) standard was analyzed at the proper frequency and were within laboratory control limits unless noted otherwise in verification/validation summary.

6.10 ICP SERIAL DILUTION

Serial dilutions were analyzed at the proper frequency and were either not performed using the client sample or were within laboratory control limits unless noted otherwise in verification/validation summary.

6.11 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

6.12 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

6.13 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

7.0 GENERAL CHEMISTRY- TOTAL AND AMENABLE CYANIDE AND ALKALINITY – METHODS 9012B and 2320B

7.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

7.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

7.3 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

7.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

7.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

7.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

7.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

7.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

8.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

8.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

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All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	***Reference Method***	***Matrix***	***Preservation & Storage***	***Holding Times***
Volatile Organics by GCMS	OSW-8260C/SIM	Water	Acidify ph<2 Refrigeration 0-6oC	14 days
Semivolatile Organics by GCMS	OSW-8270D/SIM	Water	Refrigeration 0-6oC	7 days Extraction 40 days Analysis
Polychlorinated Biphenyls by GC/ECD	OSW-8082A	Water	Refrigeration 0-6oC	365 days - Extraction - Analysis
Metals by ICP/ICPMS Spectroscopy	OSW-6010B OSW-6020A	Water	Acidify pH<2 Refrigeration 0-6oC	180 days
Mercury in Aqueous Waste	OSW-7470A	Water	Acidify pH<2 Refrigeration 0-6oC	28 days
Alkalinity	EPA 2320B	Water	Refrigeration 0-6oC	14 days
Chloride and Sulfate	OSW-9056A	Water	Refrigeration 0-6oC	28 days
Total and Amenable Cyanide	OSW-9012B	Water	Test for presence of Sulfide – if unknown collect two samples and treat one with Lead Carbonate. Then adjust sample to pH of greater than or equal to 12with NaOH. Refrigeration at 0-4C –(also may require treatment for aldehydes and chlorine/hypochlorite/sulfite)	14 days if preserved. 24 hours or sooner if unpreserved

8.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

9.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

10.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: TestAmerica-Edison
Laboratory Submittal: 119270-1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS VOC Volatiles	GCMS VOC SIM	OSW-8270D	GCMS SVOC SIM	OSW-8082A	Metals by ICP Mass Spectroscopy(D)	Metals by ICP Mass Spectroscopy	Mercury (Manual Cold Vapor)(D)	Mercury (Manual Cold Vapor)	TOTAL AND AMENABLE CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Anions by IC	Alkalinity Prep
4601192701	TB-08-082516	8/25/2016	12:00:00	X	X										
46011927010	RW-10(185-195)-082616	8/26/2016	1:05:00	X	X	X	X	X	X	X	X	X	X	X	X
46011927011	RW-10A(75-85)-082616	8/26/2016	2:15:00	X	X	X	X	X	X	X	X	X	X	X	X
4601192702	RW-4A(62-72)-082516	8/25/2016	8:10:00	X	X	X	X	X	X	X	X	X	X	X	X
4601192703	RW-13(71-91)-082516	8/25/2016	9:45:00	X	X	X	X	X	X	X	X	X	X	X	X
4601192704	RW-12(130-140)-082516	8/25/2016	12:25:00	X	X	X	X	X	X	X	X	X	X	X	X
4601192705	RW-8(204-214)-082516	8/25/2016	1:45:00	X	X	X	X	X	X	X	X	X	X	X	X
4601192706	RW-8(163-173)-082516	8/25/2016	4:05:00	X	X	X	X	X	X	X	X	X	X	X	X
4601192707	RW-13(100-120)-082616	8/26/2016	7:45:00	X	X	X	X	X		X		X	X		
4601192708	RW-13(150-170)-082616	8/26/2016	8:25:00	X	X	X	X	X	X	X	X	X	X	X	X
4601192709	Dup-05-082616	8/26/2016	12:00:00	X	X	X	X	X	X	X	X	X	X	X	X

APPENDIX 2

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

Standard Report Cover page
Table of Contents
SDG Case Narrative
Sample Summary
Executive Summary detection highlights
Method Summary
Method/Analyst Summary
Analytical Results
Surrogate Summary
Quality Control Results
Data Qualifiers
QC Summary Association
Lab Chronicle
GCMS Volatiles Data - Method 8260C and SIM
- QC Summary Data
  - Surrogate recoveries (form II)
  - Check Sample recoveries (form III)
  - Matrix spike/Matrix spike duplicate report (form III)
  - Method blank report (form IV)
  - Tuning and mass calibrations (form V)
  - Internal Standard and RT area summary (form VIII)
- Sample Data
  - GCMS VOA Organics Analysis Data Sheet (Form I)
  - Raw integration data from instrument
  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report (Form VII)
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not included with SIM package)
  - FORM I - QC data
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
  - MS and MSD integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Run logs

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

GCMS Semivolatiles Data - Method 8270D and SIM

- QC Summary Data
  - Surrogate recoveries (form II)
  - Check Sample recoveries (form III)
  - Method blank report (form IV)
  - Tuning and mass calibrations (form V) (not applicable for SIM)
  - Internal Standard and RT area summary (form VIII)
- Sample Data
  - GCMS VOA Organics Analysis Data Sheet (Form I)
  - Raw integration data from instrument
  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not applicable for SIM)
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Instrument run logs
  - Extraction bench sheets

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

- Polychlorinated Biphenyls Data (PCB)
  - QC Summary data
    - Surrogate recoveries (form II)
    - Check Sample Recovery data (form III)
    - Method Blank data (form IV)
    - Analytical sequence with RT check (Form VIII)
    - Identification Summary (Form X)
  - Sample Data
    - Organics Analysis Data Sheet (Form I)
    - Raw integration data from instrument
    - Chromatogram
  - Standards Data (both columns)
    - Initial Calibration Data External Standard RT Summary (Form VI)
    - Initial Calibration Data Summary with average RF
    - Raw integration data from instrument with manual integrations where applicable
    - ICAL chromatograms
    - Continuing Calibration Data (Form VII) with RT Summaries
    - ICV raw integration and chromatograms
    - CCV raw integration data from instrument
    - CCV chromatogram
  - Raw QC Data
    - LCS/LCSD sample data report and integration and chromatograms
    - Method blank integration and chromatograms
  - Miscellaneous Data
    - Sequence table (run log)
    - PCB Batch Worksheet
- HPLC/IC - 9056A ORGFM_28D - Anions, Ion Chromatography - Sulfate and Chloride
  - Raw Data and Data Summaries for:
    - LCS/LCSD (form III)
    - MS/MSD (form III)
    - METHOD BLANKS (Form IV)
    - SAMPLE DATA (Form I)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - ICAL (Form VI)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - ICAL (Form VII)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - QC DATA (Form I)
      - Raw instrument data and chromatography
    - Analysis Run Logs

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

METALS DATA (ICPMS and mercury)
- Forms Data
  - Cover Page
  - Inorganic Analysis Data Sheet - Metals Dissolved/Total Recoverable (1A-IN)
  - CCV standard report - mercury and ICPMS (2A-IN)
  - CRQL report - mercury and ICPMS (2B-IN)
  - ICB report - mercury and ICPMS (3-IN)
  - Method blank report (3-IN)
  - Interference check standard A - ICPMS (4A-IN)
  - Interference check standard AB - ICPMS (4A-IN)
  - MS/MSD Sample recovery (5A-IN)
  - PDS Summary (5B-IN)
  - LCS Recovery form (7A-IN)
  - LCS Duplicate Recover (7D-IN)
  - ICP-MS Serial Dilutions (8-IN)
  - Detection Limits Form (9-IN)
  - Linear dynamic ranges - ICPMS (11-IN)
  - Prep log - mercury and ICPMS (12-IN)
  - Run log - ICPMS and Mercury (13-IN)
  - ICP-MS TUNE (14-IN)
  - ICPMS Internal Standards Relative Intensity Summary (15-IN)
- Instrument Printouts
  - ICP-MS Raw instrument data
  - Mercury raw instrument data, run logs and calibrations
- Miscellaneous Data
  - Metals Batch Worksheet

GENERAL CHEMISTRY - Total and Amenable Cyanide and Alkalinity
- Cover Page
- Raw Data and Data Summaries for:
  - Sample Data (Form 1B-IN)
  - CCV/CCB (Form 2-IN)
  - METHOD BLANKS (Form 3-IN)
  - MATRIX SPIKES (Form 5-IN)
  - Sample DUPLICATES (Form 6-IN)
  - LCS/LCSD (Form 7-IN)
  - Detection Limits Form (9-IN)
  - Prep log (12-IN)
  - Analysis Run Logs (13-IN)
  - Raw Data - instrument sample sequence and calibration curve
  - Alkalinity Reagents
  - Alkalinity pH meter calibration
  - Alkalinity sequence log and raw data
  - General Chemistry Batch Worksheets

Shipping and Receiving Documents
- COC forms
- Cooler Receipt Form, checklist and narrative

APPENDIX 3

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119270-1

		Sample Name:	TB-08-082516				RW-10(185-195)-082616				RW-10A(75-85)-082616			
		Lab Sample ID:	4601192701				46011927010				46011927011			
		Sample Date:	8/25/2016				8/26/2016				8/26/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	4.1	5.0	ug/l	J	20	5.0	ug/l	B	7.0	5.0	ug/l	B
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	0.62	1.0	ug/l	J	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---

		Sample Name:	TB-08-082516			RW-10(185-195)-082616				RW-10A(75-85)-082616			
		Lab Sample ID:	4601192701			46011927010				46011927011			
		Sample Date:	8/25/2016			8/26/2016				8/26/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	0.23	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
GC/MS SVOC													
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
OSW-8270D													
1,1'-Biphenyl	92-52-4					ND	11	ug/l	---	ND	11	ug/l	---
1,2,4,5-Tetrachlorobenzene	95-94-3					ND	11	ug/l	---	ND	11	ug/l	---
2,2'-oxybis[1-chloropropane]	108-60-1					ND	11	ug/l	---	ND	11	ug/l	---
2,3,4,6-Tetrachlorophenol	58-90-2					ND	11	ug/l	---	ND	11	ug/l	---
2,4,5-Trichlorophenol	95-95-4					ND	11	ug/l	---	ND	11	ug/l	---
2,4,6-Trichlorophenol	88-06-2					ND	11	ug/l	---	ND	11	ug/l	---

	Sample Name:	TB-08-082516				RW-10(185-195)-082616				RW-10A(75-85)-082616				
	Lab Sample ID:	4601192701				46011927010				46011927011				
	Sample Date:	8/25/2016				8/26/2016				8/26/2016				
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
2,4-Dichlorophenol	120-83-2					ND	11	ug/l	---	ND	11	ug/l	---
2,4-Dimethylphenol	105-67-9					ND	11	ug/l	---	ND	11	ug/l	---
2,4-Dinitrophenol	51-28-5					ND	21	ug/l	UJ	ND	21	ug/l	UJ
2,4-Dinitrotoluene	121-14-2					ND	2.1	ug/l	---	ND	2.1	ug/l	---
2,6-Dinitrotoluene	606-20-2					ND	2.1	ug/l	---	ND	2.1	ug/l	---
2-Chloronaphthalene	91-58-7					ND	11	ug/l	---	ND	11	ug/l	---
2-Chlorophenol	95-57-8					ND	11	ug/l	---	ND	11	ug/l	---
2-Methylnaphthalene	91-57-6					ND	11	ug/l	---	ND	11	ug/l	---
2-Methylphenol	95-48-7					ND	11	ug/l	---	ND	11	ug/l	---
2-Nitroaniline	88-74-4					ND	11	ug/l	---	ND	11	ug/l	---
2-Nitrophenol	88-75-5					ND	11	ug/l	---	ND	11	ug/l	---
3,3'-Dichlorobenzidine	91-94-1					ND	11	ug/l	---	ND	11	ug/l	---
3-Nitroaniline	99-09-2					ND	11	ug/l	---	ND	11	ug/l	---
4,6-Dinitro-2-methylphenol	534-52-1					ND	21	ug/l	---	ND	21	ug/l	---
4-Bromophenyl phenyl ether	101-55-3					ND	11	ug/l	---	ND	11	ug/l	---
4-Chloro-3-methylphenol	59-50-7					ND	11	ug/l	---	ND	11	ug/l	---
4-Chloroaniline	106-47-8					ND	11	ug/l	---	ND	11	ug/l	---
4-Chlorophenyl phenyl ether	7005-72-3					ND	11	ug/l	---	ND	11	ug/l	---
4-Methylphenol	106-44-5					ND	11	ug/l	---	ND	11	ug/l	---
4-Nitroaniline	100-01-6					ND	11	ug/l	---	ND	11	ug/l	---
4-Nitrophenol	100-02-7					ND	21	ug/l	---	ND	21	ug/l	---
Acenaphthene	83-32-9					ND	11	ug/l	---	ND	11	ug/l	---
Acenaphthylene	208-96-8					ND	11	ug/l	---	ND	11	ug/l	---
Acetophenone	98-86-2					ND	11	ug/l	---	ND	11	ug/l	---
Anthracene	120-12-7					ND	11	ug/l	---	ND	11	ug/l	---
Atrazine	1912-24-9					ND	2.1	ug/l	---	ND	2.1	ug/l	---
Benzaldehyde	100-52-7					ND	11	ug/l	---	ND	11	ug/l	---
Benzo[g,h,i]perylene	191-24-2					ND	11	ug/l	---	ND	11	ug/l	---
Benzo[k]fluoranthene	207-08-9					ND	1.1	ug/l	---	ND	1.1	ug/l	---
Bis(2-chloroethoxy)methane	111-91-1					ND	11	ug/l	---	ND	11	ug/l	---
Bis(2-ethylhexyl) phthalate	117-81-7					1.3	2.1	ug/l	J	1.0	2.1	ug/l	J
Butyl benzyl phthalate	85-68-7					ND	11	ug/l	---	ND	11	ug/l	---
Caprolactam	105-60-2					ND	11	ug/l	---	ND	11	ug/l	---
Carbazole	86-74-8					ND	11	ug/l	---	ND	11	ug/l	---
Chrysene	218-01-9					ND	2.1	ug/l	---	ND	2.1	ug/l	---
Di-n-butyl phthalate	84-74-2					ND	11	ug/l	---	ND	11	ug/l	---

		Sample Name:	TB-08-082516			RW-10(185-195)-082616				RW-10A(75-85)-082616			
		Lab Sample ID:	4601192701			46011927010				46011927011			
		Sample Date:	8/25/2016			8/26/2016				8/26/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
Di-n-octyl phthalate	117-84-0					ND	11	ug/l	---	ND	11	ug/l	---
Dibenzofuran	132-64-9					ND	11	ug/l	---	ND	11	ug/l	---
Diethyl phthalate	84-66-2					ND	11	ug/l	---	ND	11	ug/l	---
Dimethyl phthalate	131-11-3					ND	11	ug/l	---	ND	11	ug/l	---
Fluoranthene	206-44-0					ND	11	ug/l	---	ND	11	ug/l	---
Fluorene	86-73-7					ND	11	ug/l	---	ND	11	ug/l	---
Hexachlorobutadiene	87-68-3					ND	1.1	ug/l	---	ND	1.1	ug/l	---
Hexachlorocyclopentadiene	77-47-4					ND	11	ug/l	---	ND	11	ug/l	---
Hexachloroethane	67-72-1					ND	1.1	ug/l	---	ND	1.1	ug/l	---
Isophorone	78-59-1					ND	11	ug/l	---	ND	11	ug/l	---
N-Nitrosodi-n-propylamine	621-64-7					ND	1.1	ug/l	---	ND	1.1	ug/l	---
N-Nitrosodiphenylamine	86-30-6					ND	11	ug/l	---	ND	11	ug/l	---
Naphthalene	91-20-3					ND	11	ug/l	---	ND	11	ug/l	---
Nitrobenzene	98-95-3					ND	1.1	ug/l	---	ND	1.1	ug/l	---
Phenanthrene	85-01-8					ND	11	ug/l	---	ND	11	ug/l	---
Phenol	108-95-2					ND	11	ug/l	---	ND	11	ug/l	---
Pyrene	129-00-0					ND	11	ug/l	---	ND	11	ug/l	---
OSW-8270DSIM													
Benzo[a]anthracene	56-55-3					ND	0.053	ug/l	---	ND	0.053	ug/l	---
Benzo[a]pyrene	50-32-8					ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ
Benzo[b]fluoranthene	205-99-2					ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ
Bis(2-chloroethyl)ether	111-44-4					ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3					ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ
Hexachlorobenzene	118-74-1					ND	0.021	ug/l	---	ND	0.021	ug/l	---
Indeno[1,2,3-cd]pyrene	193-39-5					ND	0.053	ug/l	---	ND	0.053	ug/l	---
Pentachlorophenol	87-86-5					ND	0.21	ug/l	---	ND	0.21	ug/l	---
GC Other													
OSW-8082A													
PCB-1016	12674-11-2					ND	0.43	ug/l	---	ND	0.40	ug/l	---
PCB-1221	11104-28-2					ND	0.43	ug/l	---	ND	0.40	ug/l	---
PCB-1232	11141-16-5					ND	0.43	ug/l	---	ND	0.40	ug/l	---
PCB-1242	53469-21-9					ND	0.43	ug/l	---	ND	0.40	ug/l	---
PCB-1248	12672-29-6					ND	0.43	ug/l	---	ND	0.40	ug/l	---
PCB-1254	11097-69-1					ND	0.43	ug/l	---	ND	0.40	ug/l	---
PCB-1260	11096-82-5					ND	0.43	ug/l	---	ND	0.40	ug/l	---

		Sample Name:	TB-08-082516				RW-10(185-195)-082616				RW-10A(75-85)-082616			
		Lab Sample ID:	4601192701				46011927010				46011927011			
		Sample Date:	8/25/2016				8/26/2016				8/26/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
	PCB-1262	37324-23-5					ND	0.43	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4					ND	0.43	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3					ND	0.43	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5					119	40.0	ug/l	---	27.3	40.0	ug/l	J
	Aluminum - Dissolved	7429-90-5					96.2	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2					4.6	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2					4.0	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3					9.9	4.0	ug/l	---	6.7	4.0	ug/l	---
	Barium - Dissolved	7440-39-3					10	4.0	ug/l	---	6.7	4.0	ug/l	---
	Beryllium	7440-41-7					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2					47200	200	ug/l	---	49900	200	ug/l	---
	Calcium - Dissolved	7440-70-2					51400	200	ug/l	---	52100	200	ug/l	---
	Chromium	7440-47-3					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6					ND	120	ug/l	---	ND	120	ug/l	---
	Iron - Dissolved	7439-89-6					ND	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1					ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1					ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4					747	200	ug/l	---	14200	200	ug/l	---
	Magnesium - Dissolved	7439-95-4					1330	200	ug/l	---	14900	200	ug/l	---
	Manganese	7439-96-5					ND	8.0	ug/l	---	9.1	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5					ND	8.0	ug/l	---	ND	8.0	ug/l	---
	Nickel	7440-02-0					2.2	4.0	ug/l	J	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0					1.4	4.0	ug/l	J	ND	4.0	ug/l	---

Analyte	Cas No.	Sample Name: TB-08-082516 Result	Report Limit	Units	Valid Qualifier	Sample Name: RW-10(185-195)-082616 Result	Report Limit	Units	Valid Qualifier	Sample Name: RW-10A(75-85)-082616 Result	Report Limit	Units	Valid Qualifier
	Lab Sample ID:	4601192701				46011927010				46011927011			
	Sample Date:	8/25/2016				8/26/2016				8/26/2016			
Potassium	7440-09-7					10300	200	ug/l	---	2170	200	ug/l	---
Potassium - Dissolved	7440-09-7					8740	200	ug/l	---	2120	200	ug/l	---
Selenium	7782-49-2					ND	10.0	ug/l	---	ND	10.0	ug/l	---
Selenium - Dissolved	7782-49-2					ND	10.0	ug/l	---	ND	10.0	ug/l	---
Silver	7440-22-4					ND	2.0	ug/l	---	ND	2.0	ug/l	---
Silver - Dissolved	7440-22-4					ND	2.0	ug/l	---	ND	2.0	ug/l	---
Sodium	7440-23-5					31200	200	ug/l	---	5170	200	ug/l	---
Sodium - Dissolved	7440-23-5					25300	200	ug/l	---	5290	200	ug/l	---
Thallium	7440-28-0					ND	0.80	ug/l	---	ND	0.80	ug/l	---
Thallium - Dissolved	7440-28-0					ND	0.80	ug/l	---	ND	0.80	ug/l	---
Vanadium	7440-62-2					ND	4.0	ug/l	---	ND	4.0	ug/l	---
Vanadium - Dissolved	7440-62-2					ND	4.0	ug/l	---	ND	4.0	ug/l	---
Zinc	7440-66-6					ND	16.0	ug/l	---	ND	16.0	ug/l	---
Zinc - Dissolved	7440-66-6					ND	16.0	ug/l	---	ND	16.0	ug/l	---
OSW-7470A													
Mercury	7439-97-6					ND	0.20	ug/l	---	ND	0.20	ug/l	---
Mercury - Dissolved	7439-97-6					ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry													
OSW-9012B													
Cyanide, Total	57-12-5					ND	0.010	mg/l	---	ND	0.010	mg/l	---
OSW-9056A													
Chloride	16887-00-6					57.5	12.0	mg/l	---	33.7	1.20	mg/l	---
Sulfate	14808-79-8					1200	60.0	mg/l	---	754	60.0	mg/l	---
Prep													
APHA-2320B													
Alkalinity	E-14506					74.4	5.0	mg/l	---	161	5.0	mg/l	---
Bicarbonate Alkalinity as CaCO3	E-14508					ND	5.0	mg/l	---	161	5.0	mg/l	---

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119270-1

		Sample Name:	RW-4A(62-72)-082516				RW-13(71-91)-082516				RW-12(130-140)-082516			
		Lab Sample ID:	4601192702				4601192703				4601192704			
		Sample Date:	8/25/2016				8/25/2016				8/25/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	7.2	5.0	ug/l	B	8.4	5.0	ug/l	B	6.5	5.0	ug/l	B
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.60	1.0	ug/l	J
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---

		Sample Name:	RW-4A(62-72)-082516				RW-13(71-91)-082516				RW-12(130-140)-082516			
		Lab Sample ID:	4601192702				4601192703				4601192704			
		Sample Date:	8/25/2016				8/25/2016				8/25/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.54	1.0	ug/l	J
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	0.35	1.0	ug/l	UB	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
GC/MS SVOC													
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
OSW-8270D													
1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---

		Sample Name:	RW-4A(62-72)-082516				RW-13(71-91)-082516				RW-12(130-140)-082516			
		Lab Sample ID:	4601192702				4601192703				4601192704			
		Sample Date:	8/25/2016				8/25/2016				8/25/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4-Dinitrophenol	51-28-5	ND	21	ug/l	UJ	ND	21	ug/l	UJ	ND	21	ug/l	UJ
2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Methylphenol	95-48-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Caprolactam	105-60-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Di-n-butyl phthalate	84-74-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---

		Sample Name:	RW-4A(62-72)-082516			RW-13(71-91)-082516				RW-12(130-140)-082516			
		Lab Sample ID:	4601192702			4601192703				4601192704			
		Sample Date:	8/25/2016			8/25/2016				8/25/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Naphthalene	91-20-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM													
Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.21	ug/l	---	ND	0.21	ug/l	---
GC Other													
OSW-8082A													
PCB-1016	12674-11-2	ND	0.41	ug/l	---	ND	0.41	ug/l	---	ND	0.42	ug/l	---
PCB-1221	11104-28-2	ND	0.41	ug/l	---	ND	0.41	ug/l	---	ND	0.42	ug/l	---
PCB-1232	11141-16-5	ND	0.41	ug/l	---	ND	0.41	ug/l	---	ND	0.42	ug/l	---
PCB-1242	53469-21-9	ND	0.41	ug/l	---	ND	0.41	ug/l	---	ND	0.42	ug/l	---
PCB-1248	12672-29-6	ND	0.41	ug/l	---	ND	0.41	ug/l	---	ND	0.42	ug/l	---
PCB-1254	11097-69-1	ND	0.41	ug/l	---	ND	0.41	ug/l	---	ND	0.42	ug/l	---
PCB-1260	11096-82-5	ND	0.41	ug/l	---	ND	0.41	ug/l	---	ND	0.42	ug/l	---

	Sample Name:	RW-4A(62-72)-082516				RW-13(71-91)-082516				RW-12(130-140)-082516			
	Lab Sample ID:	4601192702				4601192703				4601192704			
	Sample Date:	8/25/2016				8/25/2016				8/25/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
PCB-1262	37324-23-5	ND	0.41	ug/l	---	ND	0.41	ug/l	---	ND	0.42	ug/l	---
PCB-1268	11100-14-4	ND	0.41	ug/l	---	ND	0.41	ug/l	---	ND	0.42	ug/l	---
Polychlorinated biphenyls, Total	1336-36-3	ND	0.41	ug/l	---	ND	0.41	ug/l	---	ND	0.42	ug/l	---
Metals													
OSW-6020A													
Aluminum	7429-90-5	121	40.0	ug/l	---	51.0	40.0	ug/l	---	877	40.0	ug/l	---
Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	506	40.0	ug/l	---
Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Arsenic	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	13.5	2.0	ug/l	---
Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	15.0	2.0	ug/l	---
Barium	7440-39-3	4.4	4.0	ug/l	---	11.2	4.0	ug/l	---	15.1	4.0	ug/l	---
Barium - Dissolved	7440-39-3	4.4	4.0	ug/l	---	11.4	4.0	ug/l	---	8.2	4.0	ug/l	---
Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Calcium	7440-70-2	9340	200	ug/l	---	41200	200	ug/l	---	38500	200	ug/l	---
Calcium - Dissolved	7440-70-2	9300	200	ug/l	---	42600	200	ug/l	---	35500	200	ug/l	---
Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
Copper	7440-50-8	2.0	4.0	ug/l	J	2.4	4.0	ug/l	J	ND	4.0	ug/l	---
Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
Iron	7439-89-6	147	120	ug/l	---	149	120	ug/l	---	400	120	ug/l	---
Iron - Dissolved	7439-89-6	ND	120	ug/l	---	ND	120	ug/l	---	ND	120	ug/l	---
Lead	7439-92-1	0.83	1.2	ug/l	J	ND	1.2	ug/l	---	0.41	1.2	ug/l	J
Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
Magnesium	7439-95-4	3130	200	ug/l	---	15100	200	ug/l	---	710	200	ug/l	---
Magnesium - Dissolved	7439-95-4	3720	200	ug/l	---	15300	200	ug/l	---	ND	200	ug/l	---
Manganese	7439-96-5	2.9	8.0	ug/l	J	3.9	8.0	ug/l	J	11.9	8.0	ug/l	---
Manganese - Dissolved	7439-96-5	ND	8.0	ug/l	---	ND	8.0	ug/l	---	ND	8.0	ug/l	---
Nickel	7440-02-0	21.3	4.0	ug/l	---	ND	4.0	ug/l	---	4.0	4.0	ug/l	---
Nickel - Dissolved	7440-02-0	24.7	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---

		Sample Name:	RW-4A(62-72)-082516				RW-13(71-91)-082516				RW-12(130-140)-082516			
		Lab Sample ID:	4601192702				4601192703				4601192704			
		Sample Date:	8/25/2016				8/25/2016				8/25/2016			
Analyte		Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
Potassium		7440-09-7	1240	200	ug/l	---	3040	200	ug/l	---	9700	200	ug/l	---
Potassium - Dissolved		7440-09-7	1220	200	ug/l	---	3010	200	ug/l	---	8730	200	ug/l	---
Selenium		7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	0.92	10.0	ug/l	J
Selenium - Dissolved		7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	1.2	10.0	ug/l	J
Silver		7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Silver - Dissolved		7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
Sodium		7440-23-5	5640	200	ug/l	---	14100	200	ug/l	---	84200	200	ug/l	---
Sodium - Dissolved		7440-23-5	5520	200	ug/l	---	14300	200	ug/l	---	85100	200	ug/l	---
Thallium		7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
Thallium - Dissolved		7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
Vanadium		7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
Vanadium - Dissolved		7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
Zinc		7440-66-6	10.0	16.0	ug/l	J	ND	16.0	ug/l	---	42.2	16.0	ug/l	---
Zinc - Dissolved		7440-66-6	7.9	16.0	ug/l	J	ND	16.0	ug/l	---	ND	16.0	ug/l	---
OSW-7470A														
Mercury		7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
Mercury - Dissolved		7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
OSW-9012B														
Cyanide, Total		57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
OSW-9056A														
Chloride		16887-00-6	1.75	0.12	mg/l	---	436	24.0	mg/l	---	183	12.0	mg/l	---
Sulfate		14808-79-8	11.4	0.60	mg/l	---	18.9	0.60	mg/l	---	1390	60.0	mg/l	---
Prep														
APHA-2320B														
Alkalinity		E-14506	40.2	5.0	mg/l	---	115	5.0	mg/l	---	129	5.0	mg/l	---
Bicarbonate Alkalinity as CaCO3		E-14508	40.2	5.0	mg/l	---	115	5.0	mg/l	---	ND	5.0	mg/l	---

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119270-1

		Sample Name:	RW-8(204-214)-082516				RW-8(163-173)-082516				RW-13(100-120)-082616			
		Lab Sample ID:	4601192705				4601192706				4601192707			
		Sample Date:	8/25/2016				8/25/2016				8/26/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	13	5.0	ug/l	---	ND	5.0	ug/l	---	3.6	5.0	ug/l	J
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	8.8	5.0	ug/l	B	6.5	5.0	ug/l	B	25	5.0	ug/l	---
Benzene	71-43-2	3.8	1.0	ug/l	---	0.35	1.0	ug/l	J	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	1.6	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---

		Sample Name:	RW-8(204-214)-082516				RW-8(163-173)-082516				RW-13(100-120)-082616			
		Lab Sample ID:	4601192705				4601192706				4601192707			
		Sample Date:	8/25/2016				8/25/2016				8/26/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	0.49	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.45	1.0	ug/l	J
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.24	1.0	ug/l	UB
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.99	1.0	ug/l	J
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.37	1.0	ug/l	J
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Vinyl chloride	75-01-4	0.24	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
GC/MS SVOC													
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
OSW-8270D													
1,1'-Biphenyl	92-52-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
1,2,4,5-Tetrachlorobenzene	95-94-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
2,2'-oxybis[1-chloropropane]	108-60-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
2,3,4,6-Tetrachlorophenol	58-90-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
2,4,5-Trichlorophenol	95-95-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
2,4,6-Trichlorophenol	88-06-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---

	Sample Name:	RW-8(204-214)-082516				RW-8(163-173)-082516				RW-13(100-120)-082616			
	Lab Sample ID:	4601192705				4601192706				4601192707			
	Sample Date:	8/25/2016				8/25/2016				8/26/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
2,4-Dichlorophenol	120-83-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
2,4-Dimethylphenol	105-67-9	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
2,4-Dinitrophenol	51-28-5	ND	21	ug/l	UJ	ND	21	ug/l	UJ	ND	21	ug/l	UJ
2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2-Chloronaphthalene	91-58-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
2-Chlorophenol	95-57-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
2-Methylnaphthalene	91-57-6	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
2-Methylphenol	95-48-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
2-Nitroaniline	88-74-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
2-Nitrophenol	88-75-5	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
3,3'-Dichlorobenzidine	91-94-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
3-Nitroaniline	99-09-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
4-Bromophenyl phenyl ether	101-55-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
4-Chloro-3-methylphenol	59-50-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
4-Chloroaniline	106-47-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
4-Chlorophenyl phenyl ether	7005-72-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
4-Methylphenol	106-44-5	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
4-Nitroaniline	100-01-6	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
Acenaphthene	83-32-9	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Acenaphthylene	208-96-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Acetophenone	98-86-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Anthracene	120-12-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Benzaldehyde	100-52-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Benzo[g,h,i]perylene	191-24-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Benzo[k]fluoranthene	207-08-9	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.1	ug/l	---
Bis(2-chloroethoxy)methane	111-91-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Butyl benzyl phthalate	85-68-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Caprolactam	105-60-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Carbazole	86-74-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Di-n-butyl phthalate	84-74-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---

	Sample Name:	RW-8(204-214)-082516				RW-8(163-173)-082516				RW-13(100-120)-082616			
	Lab Sample ID:	4601192705				4601192706				4601192707			
	Sample Date:	8/25/2016				8/25/2016				8/26/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
Di-n-octyl phthalate	117-84-0	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Dibenzofuran	132-64-9	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Diethyl phthalate	84-66-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Dimethyl phthalate	131-11-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Fluoranthene	206-44-0	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Fluorene	86-73-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Hexachlorobutadiene	87-68-3	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.1	ug/l	---
Hexachlorocyclopentadiene	77-47-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Hexachloroethane	67-72-1	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.1	ug/l	---
Isophorone	78-59-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
N-Nitrosodi-n-propylamine	621-64-7	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.1	ug/l	---
N-Nitrosodiphenylamine	86-30-6	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Naphthalene	91-20-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Nitrobenzene	98-95-3	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.1	ug/l	---
Phenanthrene	85-01-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
Phenol	108-95-2	4.2	11	ug/l	J	ND	10	ug/l	---	4.8	11	ug/l	J
Pyrene	129-00-0	ND	11	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
OSW-8270DSIM													
Benzo[a]anthracene	56-55-3	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.053	ug/l	---
Benzo[a]pyrene	50-32-8	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.053	ug/l	UJ
Benzo[b]fluoranthene	205-99-2	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.053	ug/l	UJ
Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.053	ug/l	UJ
Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.053	ug/l	---
Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.21	ug/l	---	ND	0.21	ug/l	---
GC Other													
OSW-8082A													
PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.41	ug/l	---
PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.41	ug/l	---
PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.41	ug/l	---
PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.41	ug/l	---
PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.41	ug/l	---
PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.41	ug/l	---
PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.41	ug/l	---

		Sample Name:	RW-8(204-214)-082516				RW-8(163-173)-082516				RW-13(100-120)-082616			
		Lab Sample ID:	4601192705				4601192706				4601192707			
		Sample Date:	8/25/2016				8/25/2016				8/26/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.41	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.41	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.41	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	5080	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---				
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---				
	Arsenic	7440-38-2	1.8	2.0	ug/l	J	1.5	2.0	ug/l	J	3.1	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	1.7	2.0	ug/l	J	1.6	2.0	ug/l	J				
	Barium	7440-39-3	8.1	4.0	ug/l	---	9.7	4.0	ug/l	---	17.7	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	5.8	4.0	ug/l	---	9.5	4.0	ug/l	---				
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---				
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---				
	Calcium	7440-70-2	10400	200	ug/l	---	34300	200	ug/l	---	13800	200	ug/l	---
	Calcium - Dissolved	7440-70-2	7600	200	ug/l	---	34600	200	ug/l	---				
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	22.3	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Copper	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	14.8	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Iron	7439-89-6	73.2	120	ug/l	J	ND	120	ug/l	---	344	120	ug/l	---
	Iron - Dissolved	7439-89-6	44.1	120	ug/l	J	ND	120	ug/l	---				
	Lead	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	0.78	1.2	ug/l	J
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---				
	Magnesium	7439-95-4	10700	200	ug/l	---	5460	200	ug/l	---	ND	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	10300	200	ug/l	---	6710	200	ug/l	---				
	Manganese	7439-96-5	5.9	8.0	ug/l	J	14.7	8.0	ug/l	---	ND	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	ND	8.0	ug/l	---	15.1	8.0	ug/l	---				
	Nickel	7440-02-0	4.5	4.0	ug/l	---	2.3	4.0	ug/l	J	2.8	4.0	ug/l	J
	Nickel - Dissolved	7440-02-0	3.9	4.0	ug/l	J	1.6	4.0	ug/l	J				

		Sample Name:	RW-8(204-214)-082516				RW-8(163-173)-082516				RW-13(100-120)-082616			
		Lab Sample ID:	4601192705				4601192706				4601192707			
		Sample Date:	8/25/2016				8/25/2016				8/26/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
	Potassium	7440-09-7	128000	200	ug/l	---	2210	200	ug/l	---	185000	200	ug/l	---
	Potassium - Dissolved	7440-09-7	138000	200	ug/l	---	2030	200	ug/l	---				
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	9.2	10.0	ug/l	J
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---				
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---				
	Sodium	7440-23-5	86300	200	ug/l	---	43800	200	ug/l	---	190000	200	ug/l	---
	Sodium - Dissolved	7440-23-5	89100	200	ug/l	---	42100	200	ug/l	---				
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---				
	Vanadium	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	44.1	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Zinc	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---				
OSW-7470A														
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---				
General Chemistry														
OSW-9012B														
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
OSW-9056A														
	Chloride	16887-00-6	123	12.0	mg/l	---	25.9	12.0	mg/l	---				
	Sulfate	14808-79-8	182	60.0	mg/l	---	140	60.0	mg/l	---				
Prep														
APHA-2320B														
	Alkalinity	E-14506	277	5.0	mg/l	---	82.4	5.0	mg/l	---				
	Bicarbonate Alkalinity as CaCO3	E-14508	125	5.0	mg/l	---	82.4	5.0	mg/l	---				

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119270-1

		Sample Name:	RW-13(150-170)-082616				Dup-05-082616			
		Lab Sample ID:	4601192708				4601192709			
		Sample Date:	8/26/2016				8/26/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC									
OSW-8260C									
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	4.5	5.0	ug/l	UB	20	5.0	ug/l	B
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	0.37	1.0	ug/l	J	0.74	1.0	ug/l	J
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---

		Sample Name:	RW-13(150-170)-082616			Dup-05-082616			
		Lab Sample ID:	4601192708			4601192709			
		Sample Date:	8/26/2016			8/26/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Ethylbenzene	100-41-4	0.48	1.0	ug/l	J	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	0.33	1.0	ug/l	J	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	0.69	1.0	ug/l	J	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---
GC/MS SVOC									
OSW-8260CSIM									
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---
OSW-8270D									
1,1'-Biphenyl	92-52-4	ND	11	ug/l	---	ND	11	ug/l	---
1,2,4,5-Tetrachlorobenzene	95-94-3	ND	11	ug/l	---	ND	11	ug/l	---
2,2'-oxybis[1-chloropropane]	108-60-1	ND	11	ug/l	---	ND	11	ug/l	---
2,3,4,6-Tetrachlorophenol	58-90-2	ND	11	ug/l	---	ND	11	ug/l	---
2,4,5-Trichlorophenol	95-95-4	ND	11	ug/l	---	ND	11	ug/l	---
2,4,6-Trichlorophenol	88-06-2	ND	11	ug/l	---	ND	11	ug/l	---

Sample Name:		RW-13(150-170)-082616				Dup-05-082616			
Lab Sample ID:		4601192708				4601192709			
Sample Date:		8/26/2016				8/26/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
2,4-Dichlorophenol	120-83-2	ND	11	ug/l	---	ND	11	ug/l	---
2,4-Dimethylphenol	105-67-9	ND	11	ug/l	---	ND	11	ug/l	---
2,4-Dinitrophenol	51-28-5	ND	21	ug/l	UJ	ND	21	ug/l	UJ
2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2-Chloronaphthalene	91-58-7	ND	11	ug/l	---	ND	11	ug/l	---
2-Chlorophenol	95-57-8	ND	11	ug/l	---	ND	11	ug/l	---
2-Methylnaphthalene	91-57-6	ND	11	ug/l	---	ND	11	ug/l	---
2-Methylphenol	95-48-7	ND	11	ug/l	---	ND	11	ug/l	---
2-Nitroaniline	88-74-4	ND	11	ug/l	---	ND	11	ug/l	---
2-Nitrophenol	88-75-5	ND	11	ug/l	---	ND	11	ug/l	---
3,3'-Dichlorobenzidine	91-94-1	ND	11	ug/l	---	ND	11	ug/l	---
3-Nitroaniline	99-09-2	ND	11	ug/l	---	ND	11	ug/l	---
4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---
4-Bromophenyl phenyl ether	101-55-3	ND	11	ug/l	---	ND	11	ug/l	---
4-Chloro-3-methylphenol	59-50-7	ND	11	ug/l	---	ND	11	ug/l	---
4-Chloroaniline	106-47-8	ND	11	ug/l	---	ND	11	ug/l	---
4-Chlorophenyl phenyl ether	7005-72-3	ND	11	ug/l	---	ND	11	ug/l	---
4-Methylphenol	106-44-5	ND	11	ug/l	---	ND	11	ug/l	---
4-Nitroaniline	100-01-6	ND	11	ug/l	---	ND	11	ug/l	---
4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---
Acenaphthene	83-32-9	ND	11	ug/l	---	ND	11	ug/l	---
Acenaphthylene	208-96-8	ND	11	ug/l	---	ND	11	ug/l	---
Acetophenone	98-86-2	ND	11	ug/l	---	ND	11	ug/l	---
Anthracene	120-12-7	ND	11	ug/l	---	ND	11	ug/l	---
Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Benzaldehyde	100-52-7	ND	11	ug/l	---	ND	11	ug/l	---
Benzo[g,h,i]perylene	191-24-2	ND	11	ug/l	---	ND	11	ug/l	---
Benzo[k]fluoranthene	207-08-9	ND	1.1	ug/l	---	ND	1.1	ug/l	---
Bis(2-chloroethoxy)methane	111-91-1	ND	11	ug/l	---	ND	11	ug/l	---
Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Butyl benzyl phthalate	85-68-7	ND	11	ug/l	---	ND	11	ug/l	---
Caprolactam	105-60-2	ND	11	ug/l	---	ND	11	ug/l	---
Carbazole	86-74-8	ND	11	ug/l	---	ND	11	ug/l	---
Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Di-n-butyl phthalate	84-74-2	ND	11	ug/l	---	ND	11	ug/l	---

		Sample Name:	RW-13(150-170)-082616			Dup-05-082616			
		Lab Sample ID:	4601192708			4601192709			
		Sample Date:	8/26/2016			8/26/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
Di-n-octyl phthalate	117-84-0	ND	11	ug/l	---	ND	11	ug/l	---
Dibenzofuran	132-64-9	ND	11	ug/l	---	ND	11	ug/l	---
Diethyl phthalate	84-66-2	ND	11	ug/l	---	ND	11	ug/l	---
Dimethyl phthalate	131-11-3	ND	11	ug/l	---	ND	11	ug/l	---
Fluoranthene	206-44-0	ND	11	ug/l	---	ND	11	ug/l	---
Fluorene	86-73-7	ND	11	ug/l	---	ND	11	ug/l	---
Hexachlorobutadiene	87-68-3	ND	1.1	ug/l	---	ND	1.1	ug/l	---
Hexachlorocyclopentadiene	77-47-4	ND	11	ug/l	---	ND	11	ug/l	---
Hexachloroethane	67-72-1	ND	1.1	ug/l	---	ND	1.1	ug/l	---
Isophorone	78-59-1	ND	11	ug/l	---	ND	11	ug/l	---
N-Nitrosodi-n-propylamine	621-64-7	ND	1.1	ug/l	---	ND	1.1	ug/l	---
N-Nitrosodiphenylamine	86-30-6	ND	11	ug/l	---	ND	11	ug/l	---
Naphthalene	91-20-3	ND	11	ug/l	---	ND	11	ug/l	---
Nitrobenzene	98-95-3	ND	1.1	ug/l	---	ND	1.1	ug/l	---
Phenanthrene	85-01-8	ND	11	ug/l	---	ND	11	ug/l	---
Phenol	108-95-2	ND	11	ug/l	---	ND	11	ug/l	---
Pyrene	129-00-0	ND	11	ug/l	---	ND	11	ug/l	---
OSW-8270DSIM									
Benzo[a]anthracene	56-55-3	ND	0.053	ug/l	---	ND	0.053	ug/l	---
Benzo[a]pyrene	50-32-8	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ
Benzo[b]fluoranthene	205-99-2	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ
Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3	ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ
Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.021	ug/l	---
Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.053	ug/l	---	ND	0.053	ug/l	---
Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.21	ug/l	---
GC Other									
OSW-8082A									
PCB-1016	12674-11-2	ND	0.41	ug/l	---	ND	0.42	ug/l	---
PCB-1221	11104-28-2	ND	0.41	ug/l	---	ND	0.42	ug/l	---
PCB-1232	11141-16-5	ND	0.41	ug/l	---	ND	0.42	ug/l	---
PCB-1242	53469-21-9	ND	0.41	ug/l	---	ND	0.42	ug/l	---
PCB-1248	12672-29-6	ND	0.41	ug/l	---	ND	0.42	ug/l	---
PCB-1254	11097-69-1	ND	0.41	ug/l	---	ND	0.42	ug/l	---
PCB-1260	11096-82-5	ND	0.41	ug/l	---	ND	0.42	ug/l	---

		Sample Name:	RW-13(150-170)-082616				Dup-05-082616			
		Lab Sample ID:	4601192708				4601192709			
		Sample Date:	8/26/2016				8/26/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
	PCB-1262	37324-23-5	ND	0.41	ug/l	---	ND	0.42	ug/l	---
	PCB-1268	11100-14-4	ND	0.41	ug/l	---	ND	0.42	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.41	ug/l	---	ND	0.42	ug/l	---
Metals										
	OSW-6020A									
	Aluminum	7429-90-5	89.4	40.0	ug/l	---	114	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	113	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	1.6	2.0	ug/l	J	4.3	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	1.4	2.0	ug/l	J	5.1	2.0	ug/l	---
	Barium	7440-39-3	48.2	4.0	ug/l	---	9.3	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	28.9	4.0	ug/l	---	10.3	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	34900	200	ug/l	---	46600	200	ug/l	---
	Calcium - Dissolved	7440-70-2	34800	200	ug/l	---	49600	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	365	120	ug/l	---	ND	120	ug/l	---
	Iron - Dissolved	7439-89-6	ND	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1	0.54	1.2	ug/l	J	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	5860	200	ug/l	---	738	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	7020	200	ug/l	---	999	200	ug/l	---
	Manganese	7439-96-5	104	8.0	ug/l	---	ND	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	110	8.0	ug/l	---	ND	8.0	ug/l	---
	Nickel	7440-02-0	5.4	4.0	ug/l	---	2.2	4.0	ug/l	J
	Nickel - Dissolved	7440-02-0	5.6	4.0	ug/l	---	1.7	4.0	ug/l	J

		Sample Name:	RW-13(150-170)-082616				Dup-05-082616			
		Lab Sample ID:	4601192708				4601192709			
		Sample Date:	8/26/2016				8/26/2016			
Analyte		Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
	Potassium	7440-09-7	2260	200	ug/l	---	9680	200	ug/l	---
	Potassium - Dissolved	7440-09-7	2070	200	ug/l	---	9720	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	0.90	10.0	ug/l	J
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	18200	200	ug/l	---	30700	200	ug/l	---
	Sodium - Dissolved	7440-23-5	18000	200	ug/l	---	30600	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	8.5	16.0	ug/l	J	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---
OSW-7470A										
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry										
	OSW-9012B									
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A									
	Chloride	16887-00-6	195	12.0	mg/l	---	61.6	12.0	mg/l	---
	Sulfate	14808-79-8	210	6.00	mg/l	---	1200	60.0	mg/l	---
Prep										
	APHA-2320B									
	Alkalinity	E-14506	127	5.0	mg/l	---	78.4	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	127	5.0	mg/l	---	ND	5.0	mg/l	---

APPENDIX 4

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119270-1

		Sample Name:	TB-08-082516				RW-10(185-195)-082616			
		Lab Sample ID:	4601192701				46011927010			
		Sample Date:	8/25/2016				8/26/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC										
OSW-8260C										
Acetone	67-64-1						20	5.0	ug/l	B
Bromoform	75-25-2		ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Dichlorodifluoromethane	75-71-8		ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Methylene Chloride	75-09-2									
Trichlorofluoromethane	75-69-4		ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
GC/MS SVOC										
OSW-8270D										
2,4-Dinitrophenol	51-28-5						ND	21	ug/l	UJ
OSW-8270DSIM										
Benzo[a]pyrene	50-32-8						ND	0.053	ug/l	UJ
Benzo[b]fluoranthene	205-99-2						ND	0.053	ug/l	UJ
Bis(2-chloroethyl)ether	111-44-4						ND	0.021	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3						ND	0.053	ug/l	UJ

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119270-1

		Sample Name:	RW-10A(75-85)-082616				RW-4A(62-72)-082516			
		Lab Sample ID:	46011927011				4601192702			
		Sample Date:	8/26/2016				8/25/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC									
OSW-8260C									
Acetone	67-64-1	7.0	5.0	ug/l	B	7.2	5.0	ug/l	B
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Methylene Chloride	75-09-2								
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
GC/MS SVOC									
OSW-8270D									
2,4-Dinitrophenol	51-28-5	ND	21	ug/l	UJ	ND	21	ug/l	UJ
OSW-8270DSIM									
Benzo[a]pyrene	50-32-8	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ
Benzo[b]fluoranthene	205-99-2	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ
Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119270-1

		Sample Name:	RW-13(71-91)-082516				RW-12(130-140)-082516			
		Lab Sample ID:	4601192703				4601192704			
		Sample Date:	8/25/2016				8/25/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC									
OSW-8260C									
Acetone	67-64-1	8.4	5.0	ug/l	B	6.5	5.0	ug/l	B
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Methylene Chloride	75-09-2	0.35	1.0	ug/l	UB				
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
GC/MS SVOC									
OSW-8270D									
2,4-Dinitrophenol	51-28-5	ND	21	ug/l	UJ	ND	21	ug/l	UJ
OSW-8270DSIM									
Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119270-1

		Sample Name:	RW-8(204-214)-082516				RW-8(163-173)-082516			
		Lab Sample ID:	4601192705				4601192706			
		Sample Date:	8/25/2016				8/25/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC									
OSW-8260C									
Acetone	67-64-1	8.8	5.0	ug/l	B	6.5	5.0	ug/l	B
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Methylene Chloride	75-09-2								
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
GC/MS SVOC									
OSW-8270D									
2,4-Dinitrophenol	51-28-5	ND	21	ug/l	UJ	ND	21	ug/l	UJ
OSW-8270DSIM									
Benzo[a]pyrene	50-32-8	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ
Benzo[b]fluoranthene	205-99-2	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ
Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3	ND	0.053	ug/l	UJ	ND	0.052	ug/l	UJ

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119270-1

		Sample Name:	RW-13(100-120)-082616				RW-13(150-170)-082616			
		Lab Sample ID:	4601192707				4601192708			
		Sample Date:	8/26/2016				8/26/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC										
OSW-8260C										
Acetone	67-64-1						4.5	5.0	ug/l	UB
Bromoform	75-25-2		ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Dichlorodifluoromethane	75-71-8		ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Methylene Chloride	75-09-2		0.24	1.0	ug/l	UB				
Trichlorofluoromethane	75-69-4		ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
GC/MS SVOC										
OSW-8270D										
2,4-Dinitrophenol	51-28-5		ND	21	ug/l	UJ	ND	21	ug/l	UJ
OSW-8270DSIM										
Benzo[a]pyrene	50-32-8		ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ
Benzo[b]fluoranthene	205-99-2		ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ
Bis(2-chloroethyl)ether	111-44-4		ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3		ND	0.053	ug/l	UJ	ND	0.053	ug/l	UJ

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119270-1

Sample Name: Dup-05-082616
Lab Sample ID: 4601192709
Sample Date: 8/26/2016

Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC					
OSW-8260C					
Acetone	67-64-1	20	5.0	ug/l	B
Bromoform	75-25-2	ND	1.0	ug/l	UJ
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	UJ
Methylene Chloride	75-09-2				
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	UJ
GC/MS SVOC					
OSW-8270D					
2,4-Dinitrophenol	51-28-5	ND	21	ug/l	UJ
OSW-8270DSIM					
Benzo[a]pyrene	50-32-8	ND	0.053	ug/l	UJ
Benzo[b]fluoranthene	205-99-2	ND	0.053	ug/l	UJ
Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3	ND	0.053	ug/l	UJ

APPENDIX 5

September 12, 2016

Tim Roeper
Cornerstone EG
100 Crystal Run Road
Suite 101
Middletown, NY 10941

CADENA project ID: E203361
Project: Ford Ringwood Mines Project
Project number:
Client project scope reference: Sample COC only was used to define project analytical requirements.
Laboratory: TestAmerica - Edison
Laboratory submittal: 119270-1
Sample date: 2016-08-26 2016-08-25
Report received by CADENA: 2016-09-12
Initial Data Verification completed by CADENA: 2016-09-13

The following minor QC exceptions or missing information were noted:

TBK - GCMS VOC TRIP blanks had detections below the RL for the following analytes: ACETONE, METHYLENE CHLORIDE. The following client sample results should be considered to be non-detect at the RL and qualified with UB flags: ACETONE - sample -008; METHYLENE CHLORIDE - samples -003, -007. The following client sample results should be considered to be non-detect at the concentration reported and qualified with B flags: ACETONE - samples -002, -003, -004, -005, -006, -009, -010, -011. NOTE: Sample dilution factors are not included when assigning qualification based on trip blank detections.

LCS - GCMS VOC QC batch 387955 LCS recoveries were outliers biased low for the following analytes: BROMOFORM. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: BROMOFORM - ALL SAMPLE RESULTS.

LCS - GCMS SVOC-SIM QC batch 387456 LCS recoveries were outliers biased low for the following analytes: BENZO(A)PYRENE, BENZO(B)FLUORANTHENE, DIBENZO(AH)ANTHRACENE. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: BENZO(A)PYRENE, BENZO(B)FLUORANTHENE, DIBENZO(AH)ANTHRACENE - ALL SAMPLE RESULTS.

GCMS SVOC-SIM QC batch 388366, GCMS SVOC QC batch 388683, GCMS VOC-SIM QC batch 388124 and GCMS VOC QC batch 387955 CCV response outliers as noted in the laboratory submittal case narrative were not used to qualify client sample results as part of this level 2 data package verification review.

METALS QC batch 389580, 389608, 389017 and GCMS SVOC QC batch 388683 and GCMS VOC QC batch 387955 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

10 Water sample(s) were analyzed for GCMS VOC, GCMS SVOC, GC Other, Metals, General Chemistry and MISC parameter(s). 1 Trip blank was analyzed for GCMS VOC parameters.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, LCS/LCD RPD, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Qualifiers added during verification have been added to the electronic data which is available for download from the CADENA CLMS. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory analytical report access the CADENA CLMS at http://clms.cadenaco.com/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
J-	The result is an estimated quantity, but the result may be biased low.
JB	NON-DETECT AT THE CONCENTRATION REPORTED AND ESTIMATED
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
JUB	NON-DETECT AT THE REPORTING LIMIT AND ESTIMATED
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

460-119270 Chain of Custody

CHAIN OF CUSTODY REQUEST

Page 1 of 2

Name (for report and invoice): Tim Roeper	Samplers Name (Printed): Robert Lastaberry	Site/Project Identification: Ford - Rhinewood
Company: Cornerstone Environmental Group	P. O. #: 140802-015	State (Location of site): NJ: X NY: Other:
		Regulatory Program: DKQP:
Address: 100 Crystal Run Rd, Suite 108	Analysis Turnaround Time: Standard X	
City: Middletown State: NY 10941	Rush Charges Authorized For: 2 Week 1 Week Other	
Phone: 845 695 0200 Fax:		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

LAB USE ONLY
Project No:
Job No: 119270

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + 6 TICs 8260B	TCL SVOC + 6 TICs 8270C	TAL Metals, Total + Filtered, 6010B/7470A	PCB's 8082	4 Alkalinity, Total as CaCO3, 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	Total TAL Metals	Sample Numbers
TB-08-082616	8/26/16	—	BW	3	✓									-1
RW-4A(62-72)-082516	8/25/16	08:10	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-2
RW-13(71-91)-082516	8/25/16	09:45	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-3
RW-12(130-140)-082516	8/25/16	12:25	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-4
RW-8(204-214)-082516	8/25/16	13:45	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-5
RW-8(163-173)-082516	8/25/16	16:05	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-6
RW-13(100-120)-082616	8/26/16	07:45	GW	9	✓	✓		✓				✓	✓	-7
RW-13(150-170)-082616	8/26/16	08:25	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-8
DUP-05-082616	8/26/16	12:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-9
RW-10(185-195)-082616	8/26/16	13:05	GW	13	✓	✓	✓	✓	✓	✓	✓	✓		-10

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other _____, 7 = Other _____

Soil:
Water:

Special Instructions Do not report 1,4 Dioxane for VOCs + SVOCs

Water Metals Filtered (Yes/No)? No

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/26/16 1545	1)	TA
Relinquished by 2)	Company TA	Date / Time 8/26/16 17:40	Received by 2)	Company TA GC
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

(1) 2-8 (2) 3-4
(3) 3-6 (4) 1-9

RBT AVG

9/12/2016

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice): Tim Roeper	Samplers Name (Printed): Robert Lautenberg	Site/Project Identification: Ford - Ringwood
Company: Cornerstone Environmental Group	P. O. #: 140802-015	State (Location of site): NJ: ☒ NY: ☐ Other:
		Regulatory Program: DKQP: ☐
Address: 100 Crystal Run Rd, Suite 106	Analysis Turnaround Time: Standard ☒	
City: Middletown State: NY 10941	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	
Phone: 845 695 0200 Fax:		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOCs + TICs 8260B	TCL SVOCs + TICs 8270C	TAL Metals, Total and Trivalent Chromium	PCBs	Alkalinity, Total as CaCO3, SM2320B	Chloride 300.0/9056	Sulfate 300.0/9056	Cyanide	Sample Numbers
RW-10A (75-85)-082616	8/26/16	1415	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-11

LAB USE ONLY
Project No:
Job No: 119770

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH
6 = Other _____, 7 = Other _____
Soil: Water:

Special Instructions: Do not report 1,4 Dioxane for VOC's + SVOC's
Water Metals Filtered (Yes/No)? No

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/26/16 1515	1)	TA
2)	TA	8/26/16 1700	2)	TA 60
3)			3)	
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	criteria reference	general observations	GCMS VOC	GCMS VOC SIM	GCMS SVOC	GCMS SVOC SIM	GC PCBs	ICP - MS METALS (T/D)	Manual Cold Vaper Mercury (T/D)	TOTAL CYANIDE	HPLC/IC - ANIONS	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS												
SOW available?			2009	2009	2009	2009	2009	2009	2009	2009	2009	2009
Scope validation criteria referenced			CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics	CLP-2001 organics, CLP-1992 inorganics
Lab certifications required			New Jersey	New Jersey	New Jersey	New Jersey	New Jersey	New Jersey	New Jersey	New Jersey	New Jersey	New Jersey
Lab single blind PE samples completed			NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
SAMPLING ISSUES			NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS												
holding times			OK	OK				OK	OK	OK	OK	OK
preservation			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
temperature of cooler - degrees C			1.9, 2.8, 3.4, 3.6	1.9, 2.8, 3.4, 3.6	1.9, 2.8, 3.4, 3.6	1.9, 2.8, 3.4, 3.6	1.9, 2.8, 3.4, 3.6	1.9, 2.8, 3.4, 3.6	1.9, 2.8, 3.4, 3.6	1.9, 2.8, 3.4, 3.6	1.9, 2.8, 3.4, 3.6	1.9, 2.8, 3.4, 3.6
COC discrepancies			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
sample integrity (containers, amounts)			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
ANALYTICAL/PREP GENERAL												
prep batch	LAB		NA	NA	387456	387456	387586	388629(T), 389017(D)	388129, 388820 (T), 389021(D)	389074, 389013	NA	NA
prep date	LAB		NA	NA	29-Aug	29-Aug	30-Aug	09/03 (T), 09/07(D)	09/01 (T), 09/07(D)	9/7, 9/8	NA	NA
analytical batch	LAB		387955	387733	388683	388366	387810, 388284	389269, 389608 (T), 389580, 389242 (D)	388212, 388881 (T), 389094(D)	389260, 389070	389346, 389772	389331
analytical date	LAB		08/31 - 09/01	08/30-08/31	5-Sep	9/4(MB,LCS), 9/6	8/31, 9/2 (-008)	09/08 (T), 09/07(D)	09/01 (T), 09/07(D)	9/7, 9/8	9/8 (MB), 9/9, 9/11	8-Sep
instrument ID	LAB		CVOAMS8	CVOAMS11	CBNAMS6	CBNAMS4, ABNAMS9	CPESTGC9	ICPMS1, ICPMS2	LEEMAN6	LATHAT3	IC A	NOEQUIP
Instrument Tune	METHOD	tune	OK	OK	OK	OK	NA	OK	NA	NA	NA	NA
Instrument Performance Checks	METHOD	tailing, degradation	NA	NA	OK	OK	NA	NA	NA	NA	NA	NA
ICAL (Initial Calibration Curve), Curve ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	57218	57303	57159, 57491	57611, 75255	57495, -96, 57501, -02, -07, -08, -13, -14, -19, -20, -25, -26, -31, -32, -37, -38	16I07K01.B, 16I09K01.B, 16I07T00.B, 16I08U00.B	388129hg1, 388820hg1, 389018hg1	OM_9-7_2016, OM-9-8_2016	57277	NA
ICAL (Initial Calibration Curve) Date	METHOD		10-Aug	19-Aug	9-Aug	8/30/2016, 8/15	23-Aug	9/7, 9/8	9/1, 9/6, 9/7	9/7, 9/8	17-Aug	NA
ICV (Initial Calibration Verification)	METHOD	max 30%	OK	OK	No Raw Data	No Raw Data	OK	OK	OK	OK	OK	NA
CCV (Continuing Calibration Verification)	METHOD	max 20%/50%	BF, DCDFM, TCFM low	OK	2,4-DNP low	388366-B2CEE LOW	OK	OK	OK	OK	OK	NA
Target Compound Lists	SCOPE/COC		TCL + TICs	1,2-dibromo-3-chloropropane, 1,2,3-trichloropropane and EDP	TCL	PAH,PCP,HCB,B2CEE	PCBs	Dissolved/Total Target Analyte List	Mercury	Total Cyanide	Sulfate, Chloride	Bicarbonate, Alkalinity as $CaCl_3$ Alkalinity
Reporting Limits (RL/PQL/LOQ) compliant	SCOPE	1.0 ug/l	1, 5, 10ug/l	0.2 - 0.3 ug/l	Varies,1.0 and up	.02 - .05 ug/l	0.40 ug/l	Varies	0.2 ug/l	0.1 mg/l	0.1 - 6 ug/l	5.0 mg/l
Blanks- method/calibration	NFG		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
LCS (Laboratory Control Spikes)	lab control limits	by method	70-130%, 20%, BF low	40-160%, 70-130%, 20%	20-160, 70-130, 20%	387456-BAP, BBF, DAHA-LOW	40-140%, 20%	80 - 120%	80 - 120%	80-120%	90- 110%, 15%	90.5-107.9%
MS/MSD (Matrix Spikes)	lab control limits	by method	40-160%, 70-130%, 20%	No MS in Batch	20-160, 70-130, 20%	20-160, 70-130, 20%	40-140%, 20%	75 - 125%	75 - 125%	75-125%, 20%	Included in raw data, not report	NA
Sample duplicates	lab control limits	NA	NA	OK	NA	NA	NA	OK	OK	OK	OK	OK
Internal standard reponses/RRT	METHOD	50-200%	OK	OK	OK	OK	OK	OK	NA	NA	NA	NA
Surrogate recoveries	lab control limits		OK	OK	OK	NA	OK	NA	NA	NA	NA	NA
Qualitative criteria met	METHOD		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
TICS (Tentatively Identified Compounds)	METHOD		OK	NA	NA	NA	NA	NA	NA	NA	NA	NA
TIC blanks	NFG		OK	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trip blanks	NFG		ACETONE, MECL	OK	NA	NA	NA	NA	NA	NA	NA	NA
Field blanks	NFG		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field duplicates	SCOPE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Post Digestion Spikes (PDS)	METHOD		NA	NA	NA	NA	NA	OK	OK	NA	NA	NA
Serial Dilution (SD)	METHOD		NA	NA	NA	NA	NA	OK	OK	NA	NA	NA
CRQL checks performed?	SCOPE		NA	NA	NA	NA	NA	OK	NA	NA	NA	NA
E flagging required	LAB		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GENERAL QC TRACKING												
Control Limits	SCOPE	see above	DKQP	DKQP	DKQP	DKQP	DKQP	DKQP	DKQP	DKQP	DKQP	DKQP
Certificates of Analysis for primary standards	VALIDATOR		NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED
Working/Intermediate standard prep calculations	VALIDATOR	prep log	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED
Prep technique	not specified	VARIES	5030	5030	3510C	3510C	3510C	3010A	7470A	9012B	NA	SM 2320B
Prep sample volumes/mass	not specified	VARIES	5 mL	5 mL	250/2 mL	250/2 mL	250/1 mL	50 mL	50 mL	5 mL	10 mL	50 mL
OVERALL												
Data Reportable?			YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

E-Mail Date: 2016-09-26
E-Mail To: tim.roeper@cornerstoneeg.com
cc:

U.S. Mail: Tim Roeper
Cornerstone Environmental Group
100 Crystal Run Road, Suite 101
Middletown, NY 10941

ANALYTICAL DATA VALIDATION REPORT

Ringwood Mines/Landfill
Ford Motor Company
PROJECT 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED August 16, 2016
DATA PACKAGE RECEIVED September 9, 2016
SUBMITTAL #: 460-118778-1

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TABLE OF CONTENTS

LISTS OF APPNEDICES

(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by TestAmerica-Edison Laboratory the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	GCMS VOC	GCMS VOC SIM	OSW-SVOC	GCMS SVOC SIM	OSW-PCB	Dissolved Metals by ICP MS	Total Metals by ICP MS	Mercury (Manual Cold Vapor) (D)	Mercury (Manual Cold Vapor) (T)	TOTAL CYANIDE	SULFATE CHLORIDE by IC	Alkalinity
4601187781	TB-01-081616	8/16/2016	X	X										
46011877810	OB-13-081616	8/16/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011877811	OB-14A-081616	8/16/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011877812	OB-14B-081616	8/16/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011877813	OB-24-081616	8/16/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011877814	RW-16-081616	8/16/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011877815	OB-3-081616	8/16/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601187782	FB-01-081616	8/16/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601187783	OB-17-081616	8/16/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601187784	OB-18-081616	8/16/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601187785	OB-10-081616	8/16/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601187786	OB-16-081616	8/16/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601187787	OB-28-081616	8/16/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601187788	Dup-01-081616	8/16/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601187789	OB-29-081616	8/16/2016	X	X	X	X	X	X	X	X	X	X	X	X

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	*Reference Method*	*Analyte Listing*
GCMS VOC Organics	OSW-8260C	Target Compound List
GCMS VOC Organics-SIM	OSW-8260C-SIM	1,2-Dibromo-3-chloropropane and EDB
Semi-Volatile Organics	OSW-8270D	Target Compound List
Semi-Volatile Organics	OSW-8270D/SIM	PAH, PCP, HCB, B2CEE
GC ECD Semi-Volatiles	OSW-8082A	PCB's
Metals by ICP/MS	OSW-6020A	Target Analyte List(total,dissolved)
Mercury by Cold Vapor	OSW-7470A	Mercury(total, dissolved)
Total Cyanide	OSW-9012B	Total Cyanide
Ion Chromatography	OSW-9056A	Chloride, Sulfate
Alkalinity	APHA-2320B	Alkalinity, Bicarbonate Alkalinity

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all

subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a

	tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

Additional data qualifications based on review of the level 4 data package using laboratory criteria provided if required are noted below. Qualifications that would be required based on comparison to NFG criteria are noted where applicable. These qualifications would be added to the database and associated summary tables in the appendices if applicable.

ALLTESTING PARAMETERS

No additional qualifiers required.

The following observations **DID NOT** result in qualification but were noted during the validation review:

GC/MS VOC/SVOC

Certificates of analysis for standards and all working/primary standard concentrations that are required to verify calibration standard concentrations and spike levels were not available in the laboratory data package for review.

GC/MS SVOC

Initial Calibration Verification (ICV) raw data was not available for reconstruction/re-calculation of ICV results.

CCV outliers in analytical batch 387153 biased high for 4-nitrophenol, pentachlorophenol and surrogate 2,4,6-tribromophenol and in QC batch 387247 biased high for phenol, 2-chlorophenol and surrogate 2-fluorophenol did not result in qualification of client sample data since all associated field results were non-detect (with the exception of the surrogates) so were not affected by this high bias.

PCB

Sample -002, -003, -006, -007, -010, -010MS, -010MSD surrogate recoveries associated with p flags for difference between primary and confirmatory column results greater than 40% did not result in qualification for client sample data.

METALS

Sample -010 Post Digestion Spike (PDS) recoveries outside of method criteria for dissolved barium, sodium, calcium and TOTAL barium, sodium, calcium did not result in qualification for client sample data.

VERIFICATION SUMMARY

The following qualifications and associated data flags were applied based on the initial level 2 review of this data package.

LCS - GCMS SVOC QC batch 385957 LCS recoveries were outliers biased low for the following analytes: 2-METHYLPHENOL. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: 2-METHYLPHENOL - ALL SAMPLES.

MSD - SULFATE sample -003 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased high. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected.

MSD - GCMS SVOC sample -010 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased low for the following analytes: 2-METHYLPHENOL. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

TIC - GCMS VOC Tentatively Identified Compounds (TIC's) detected results should be considered to be estimated and qualified with NJ flags.

GCMS SVOC QC batch 387153, 387247 and GCMS VOC QC batch 386373 CCV response outliers as noted in the laboratory submittal case narrative were not used to qualify client sample results as part of this level 2 data package verification review.

GCMS VOC TRIP blanks had detections above the RL for the following analytes: METHYLENE CHLORIDE. Qualification of client sample results was not required based on these TRIP blank detections.

GCMS SVOC sample -002 through -015 (all samples) and batch 385957 method blank and LCS and matrix spike surrogate recovery outliers (1 out of 3 acid fraction biased high) did not result in qualification of client sample data.

PCB sample -010MSD surrogate recovery outliers did not result in qualification of client sample data.

PCB sample -010 MS/MSD recoveries were outliers biased high for the following analytes: AROCLOR 1260, AROCLOR 1016. Associated client sample results were non-detect so qualification was not required based on these high bias QC outliers.

METALS sample -003 MS and or MSD recovery outliers were not used to qualify results for CALCIUM due to high levels of these target analytes in the original sample relative to the spike concentration (4X rule).

CHLORIDE sample -003 MS or MSD recoveries but not both or RPD only were outliers so client sample results were not qualified based on these QC outliers alone.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

2.0 VOLATILE ORGANIC COMPOUNDS (VOCs) – METHOD SW846 8260C and SIM ANALYSIS

See Attachments for submittal-specific review summary of QC requirements noted below.
The target analyte list was defined by the client-project as TCL List OLM4.2 for 8260C full scan and as noted in section 1 above for SIM analysis.

2.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) VOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS VOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS VOCs

Initial calibration data for VOCs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS VOCs

Initial calibration data for VOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary..

2.2 CONTINUING CALIBRATION – GC/MS VOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless otherwise noted in the executive summary noted above and qualified in the data tables. Target analytes associated with CCV compounds outside of method criteria were qualified as estimated with J flags if sample results were non-detect and estimated with UJ flags if CCV bias was low and sample results was non-detect and J flags if sample results were detections. Non-detect results were not qualified if CCV bias was high and sample results were non-detect.

2.3 INTERNAL STANDARDS – GC/MS VOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS VOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS VOCs

A laboratory control sample (LCS) was prepared and analyzed for VOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless otherwise noted in the executive summary and as qualified the QAR and ARS data tables found in the appendices.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS VOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS VOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS VOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS VOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS VOCs

Tentatively Identified Compounds (TIC) searches were associated with each sample analysis and should all be considered to be estimated and qualified with NJ flags when detected.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS VOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D and SIM analysis – GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

3.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

3.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

3.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

3.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

3.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

3.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

3.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) was prepared and analyzed for the target analyte SVOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

3.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

3.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

3.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

3.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

3.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

3.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal..

4.0 POLYCHLORINATED BIPHENYLS (PCBs) – METHOD SW846 8082A

The target analyte list was defined by the client as the standard 7 aroclors.

4.1 CALIBRATION – GAS CHROMATOGRAPH-ECD
4.1.1 TUNING AND MASS CALIBRATION – PCB

Not applicable for this analysis.

4.1.2 INITIAL CALIBRATION – PCB

Initial calibration data for PCBs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

4.1.3 INITIAL CALIBRATION VERIFICATION – PCB

Initial calibration verification (ICV) standards for PCB analyses were reviewed and met criteria specified by the laboratory with no exceptions.

4.2 CONTINUING CALIBRATION – PCBs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary.

4.3 INTERNAL STANDARDS – PCB

Internal standard (IS) data were reviewed and met criteria unless noted otherwise in verification/validation summary. (NOTE: Lab quantitation approach DID use internal standard quantitation for this submittal).

4.4 SURROGATE SPIKE RECOVERIES – PCB

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

4.5 LABORATORY CONTROL SAMPLE ANALYSES - PCB

A laboratory control sample (LCS) was prepared and analyzed for PCBs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary..

4.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - PCB

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

CADENA does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

4.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - PCB

There were no field duplicate comparisons performed as part of this validation request.

4.8 EXTRACT CLEANUP - PCB

Extract cleanups were performed in accordance with laboratory SOP's and as noted in level 4 data package prep logs.

4.9 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - PCB

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

4.10 TENTATIVELY IDENTIFIED COMPOUNDS - PCB

Not requested for this analytical procedure.

4.11 BLANKS – METHOD/FIELD/CALIBRATION - PCB

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

5.0 HPLC/IC – METHOD SW846 9056A – CHLORIDE AND SULFATE

5.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

5.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

5.3 CONTINUTING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

5.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

5.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

5.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

5.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

5.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

6.0 METALS – ICPMS by Method 6020A TOTAL AND DISSOLVED and Mercury by Method 7470A

The following samples provided in this SDG underwent a Level IV review for either/and metals or mercury analyses:

- Method 6020A: ALL
- Method 7470A: ALL

6.1 ICP/MS TUNING AND MASS CALIBRATION

Instrument tuning data were reviewed. Tuning elements were analyzed. All tuning criteria were met for the analyses, indicating proper optimization of the instrumentation.

6.2 INITIAL CALIBRATION

Initial calibration data for metals and mercury were reviewed and met the criteria for linearity of response without exception.

6.3 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards for metals and mercury analyses were reviewed and met criteria unless otherwise noted in verification/validation summary section of this document.

An initial calibration blank (ICB) was analyzed for metals and mercury analyses. Metals and mercury were reported as non-detect in each ICB analysis unless noted otherwise in verification/validation summary.

6.4 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for metals and mercury analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

6.5 INTERFERENCE CHECK STANDARD

The interference check standard results were reviewed and found to meet criteria.

6.6 INTERNAL STANDARDS

Internal standard (IS) data were reviewed and found to meet criteria unless noted otherwise in verification/validation summary.

6.7 LABORATORY CONTROL SAMPLE ANALYSIS

A laboratory control sample (LCS) was prepared and analyzed for metals and mercury. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

6.8 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE (MS/MSD) ANALYSES

The MS/MSD recoveries and RPD's were either not performed using a client sample or were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

6.9 CONTRACT REQUIRED DETECTION LIMIT STANDARD ANALYSES

Each contract required detection limit (CRDL) standard was analyzed at the proper frequency and were within laboratory control limits unless noted otherwise in verification/validation summary.

6.10 ICP SERIAL DILUTION

Serial dilutions were analyzed at the proper frequency and were either not performed using the client sample or were within laboratory control limits unless noted otherwise in verification/validation summary.

6.11 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

6.12 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

6.13 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

7.0 GENERAL CHEMISTRY- TOTAL AND AMENABLE CYANIDE AND ALKALINITY – METHODS 9012B and 2320B

7.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

7.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

7.3 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

7.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

7.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

7.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

7.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

7.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

8.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

8.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

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All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	***Reference Method***	***Matrix***	***Preservation & Storage***	***Holding Times***
Volatile Organics by GCMS	OSW-8260C/SIM	Water	Acidify ph<2 Refrigeration 0-6oC	14 days
Semivolatile Organics by GCMS	OSW-8270D/SIM	Water	Refrigeration 0-6oC	7 days Extraction 40 days Analysis
Polychlorinated Biphenyls by GC/ECD	OSW-8082A	Water	Refrigeration 0-6oC	365 days - Extraction -

				Analysis
Metals by ICP/ICPMS Spectroscopy	OSW-6010B OSW-6020A	Water	Acidify pH<2 Refrigeration 0-6oC	180 days
Mercury in Aqueous Waste	OSW-7470A	Water	Acidify pH<2 Refrigeration 0-6oC	28 days
Alkalinity	EPA 2320B	Water	Refrigeration 0-6oC	14 days
Chloride and Sulfate	OSW-9056A	Water	Refrigeration 0-6oC	28 days
Total and Amenable Cyanide	OSW-9012B	Water	Test for presence of Sulfide – if unknown collect two samples and treat one with Lead Carbonate. Then adjust sample to pH of greater than or equal to 12with NaOH. Refrigeration at 0-4C –(also may require treatment for aldehydes and chlorine/hypochlorite/sulfite)	14 days if preserved. 24 hours or sooner if unpreserved

8.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

9.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

10.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: TestAmerica-Edison
Laboratory Submittal: 118778-1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS VOC Volatiles	GCMS VOC SIM	OSW-8270D	GCMS SVOC SIM	OSW-8082A	Metals by ICP Mass Spectroscopy(D)	Metals by ICP Mass Spectroscopy	Mercury (Manual Cold Vapor)(D)	Mercury (Manual Cold Vapor)	TOTAL AND AMENABLE CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Anions by IC	Alkalinity Prep
4601187781	TB-01-081616	8/16/2016	12:00:00	X	X										
46011877810	OB-13-081616	8/16/2016	2:00:00	X	X	X	X	X	X	X	X	X	X	X	X
46011877811	OB-14A-081616	8/16/2016	2:30:00	X	X	X	X	X	X	X	X	X	X	X	X
46011877812	OB-14B-081616	8/16/2016	2:35:00	X	X	X	X	X	X	X	X	X	X	X	X
46011877813	OB-24-081616	8/16/2016	3:40:00	X	X	X	X	X	X	X	X	X	X	X	X
46011877814	RW-16-081616	8/16/2016	3:45:00	X	X	X	X	X	X	X	X	X	X	X	X
46011877815	OB-3-081616	8/16/2016	4:10:00	X	X	X	X	X	X	X	X	X	X	X	X
4601187782	FB-01-081616	8/16/2016	9:00:00	X	X	X	X	X	X	X	X	X	X	X	X
4601187783	OB-17-081616	8/16/2016	9:50:00	X	X	X	X	X	X	X	X	X	X	X	X
4601187784	OB-18-081616	8/16/2016	10:10:00	X	X	X	X	X	X	X	X	X	X	X	X
4601187785	OB-10-081616	8/16/2016	10:00:00	X	X	X	X	X	X	X	X	X	X	X	X
4601187786	OB-16-081616	8/16/2016	11:00:00	X	X	X	X	X	X	X	X	X	X	X	X
4601187787	OB-28-081616	8/16/2016	12:05:00	X	X	X	X	X	X	X	X	X	X	X	X
4601187788	Dup-01-081616	8/16/2016	12:00:00	X	X	X	X	X	X	X	X	X	X	X	X
4601187789	OB-29-081616	8/16/2016	11:40:00	X	X	X	X	X	X	X	X	X	X	X	X

APPENDIX 2

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

Standard Report Cover page
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SDG Case Narrative
Sample Summary
Executive Summary detection highlights
Method Summary
Method/Analyst Summary
Analytical Results
Surrogate Summary
Quality Control Results
Data Qualifiers
QC Summary Association
Lab Chronicle
GCMS Volatiles Data - Method 8260C and SIM
- QC Summary Data
  - Surrogate recoveries (form II)
  - Check Sample recoveries (form III)
  - Matrix spike/Matrix spike duplicate report (form III)
  - Method blank report (form IV)
  - Tuning and mass calibrations (form V)
  - Internal Standard and RT area summary (form VIII)
- Sample Data
  - GCMS VOA Organics Analysis Data Sheet (Form I)
  - Raw integration data from instrument
  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report (Form VII)
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not included with SIM package)
  - FORM I - QC data
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
  - MS and MSD integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Run logs

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
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Description

GCMS Semivolatiles Data - Method 8270D and SIM

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  - Tuning and mass calibrations (form V) (not applicable for SIM)
  - Internal Standard and RT area summary (form VIII)
- Sample Data
  - GCMS VOA Organics Analysis Data Sheet (Form I)
  - Raw integration data from instrument
  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not applicable for SIM)
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Instrument run logs
  - Extraction bench sheets

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

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    - ICAL chromatograms
    - Continuing Calibration Data (Form VII) with RT Summaries
    - ICV raw integration and chromatograms
    - CCV raw integration data from instrument
    - CCV chromatogram
  - Raw QC Data
    - LCS/LCSD sample data report and integration and chromatograms
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  - Miscellaneous Data
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    - MS/MSD (form III)
    - METHOD BLANKS (Form IV)
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      - Raw instrument data and chromatography
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    - ICAL (Form VI)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - ICAL (Form VII)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - QC DATA (Form I)
      - Raw instrument data and chromatography
    - Analysis Run Logs

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

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  - CCV standard report - mercury and ICPMS (2A-IN)
  - CRQL report - mercury and ICPMS (2B-IN)
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  - Interference check standard AB - ICPMS (4A-IN)
  - MS/MSD Sample recovery (5A-IN)
  - PDS Summary (5B-IN)
  - LCS Recovery form (7A-IN)
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  - Detection Limits Form (9-IN)
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  - Prep log - mercury and ICPMS (12-IN)
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  - ICPMS Internal Standards Relative Intensity Summary (15-IN)
- Instrument Printouts
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- Cooler Receipt Form, checklist and narrative

APPENDIX 3

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	TB-01-081616				OB-13-081616				OB-14A-081616			
		Lab Sample ID:	4601187781				46011877810				46011877811			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	4.1	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	TB-01-081616				OB-13-081616				OB-14A-081616			
		Lab Sample ID:	4601187781				46011877810				46011877811			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4					ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3					ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1					ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2					ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4					ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2					ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2					ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9					ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5					ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2					ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2					ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7					ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8					ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6					ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7					ND	10	ug/l	UJ	ND	10	ug/l	UJ
	2-Nitroaniline	88-74-4					ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5					ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1					ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2					ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1					ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3					ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7					ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8					ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3					ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5					ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6					ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7					ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9					ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8					ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2					ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7					ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9					1.4	2.1	ug/l	J	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7					ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2					ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1					ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7					ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Butyl benzyl phthalate	85-68-7					ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2					ND	10	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8					ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9					ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2					ND	10	ug/l	---	ND	10	ug/l	---
	Di-n-octyl phthalate	117-84-0					ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9					ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2					ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3					ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0					ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7					ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4					ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1					ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6					ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3					ND	10	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8					ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2					ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0					ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3					ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[a]pyrene	50-32-8					ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[b]fluoranthene	205-99-2					ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4					ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3					ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Hexachlorobenzene	118-74-1					ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5					ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Pentachlorophenol	87-86-5					ND	0.21	ug/l	---	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	TB-01-081616				OB-13-081616				OB-14A-081616			
		Lab Sample ID:	4601187781				46011877810				46011877811			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3					ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5					27.0	40.0	ug/l	J	27.7	40.0	ug/l	J
	Aluminum - Dissolved	7429-90-5					ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2					ND	2.0	ug/l	---	1.0	2.0	ug/l	J
	Arsenic - Dissolved	7440-38-2					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3					5.7	4.0	ug/l	---	532	4.0	ug/l	---
	Barium - Dissolved	7440-39-3					5.7	4.0	ug/l	---	324	4.0	ug/l	---
	Beryllium	7440-41-7					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2					9770	200	ug/l	---	141000	200	ug/l	---
	Calcium - Dissolved	7440-70-2					9530	200	ug/l	---	122000	200	ug/l	---
	Chromium	7440-47-3					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6					ND	120	ug/l	---	41800	120	ug/l	---
	Iron - Dissolved	7439-89-6					ND	120	ug/l	---	2980	120	ug/l	---
	Lead	7439-92-1					ND	1.2	ug/l	---	0.56	1.2	ug/l	J
	Lead - Dissolved	7439-92-1					ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4					4230	200	ug/l	---	13800	200	ug/l	---
	Magnesium - Dissolved	7439-95-4					3890	200	ug/l	---	10600	200	ug/l	---
	Manganese	7439-96-5					ND	8.0	ug/l	---	1590	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5					ND	8.0	ug/l	---	1290	8.0	ug/l	---
	Nickel	7440-02-0					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7					1070	200	ug/l	---	6930	200	ug/l	---
	Potassium - Dissolved	7440-09-7					1050	200	ug/l	---	6000	200	ug/l	---
	Selenium	7782-49-2					ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2					ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5					3680	200	ug/l	---	22700	200	ug/l	---
	Sodium - Dissolved	7440-23-5					3210	200	ug/l	---	18200	200	ug/l	---
	Thallium	7440-28-0					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2					ND	4.0	ug/l	---	1.5	4.0	ug/l	J
	Vanadium - Dissolved	7440-62-2					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6					ND	16.0	ug/l	---	7.3	16.0	ug/l	J
	Zinc - Dissolved	7440-66-6					ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6					ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6					ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5					ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6					2.63	0.12	mg/l	---	2.33	0.60	mg/l	---
	Sulfate	14808-79-8					10.5	0.60	mg/l	---	0.99	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506					38.1	5.0	mg/l	---	391	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508					38.1	5.0	mg/l	---	391	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	OB-14B-081616				OB-24-081616				RW-16-081616			
		Lab Sample ID:	46011877812				46011877813				46011877814			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	0.27	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	OB-14B-081616				OB-24-081616				RW-16-081616			
		Lab Sample ID:	46011877812				46011877813				46011877814			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC													
OSW-8270D													
1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	0.91	2.1	ug/l	J
Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Caprolactam	105-60-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Di-n-butyl phthalate	84-74-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Naphthalene	91-20-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM													
Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	0.011	0.021	ug/l	J	ND	0.021	ug/l	---
Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.21	ug/l	---	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	OB-14B-081616				OB-24-081616				RW-16-081616			
		Lab Sample ID:	46011877812				46011877813				46011877814			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	17.7	40.0	ug/l	J	40.9	40.0	ug/l	---	82.7	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	0.79	2.0	ug/l	J	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	0.89	2.0	ug/l	J	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	43.8	4.0	ug/l	---	35.6	4.0	ug/l	---	38.3	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	41.1	4.0	ug/l	---	33.5	4.0	ug/l	---	39.0	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	101000	200	ug/l	---	95700	200	ug/l	---	62100	200	ug/l	---
	Calcium - Dissolved	7440-70-2	101000	200	ug/l	---	94600	200	ug/l	---	66500	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	3.7	4.0	ug/l	J
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	593	120	ug/l	---	86.2	120	ug/l	J	956	120	ug/l	---
	Iron - Dissolved	7439-89-6	ND	120	ug/l	---	ND	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	31400	200	ug/l	---	26200	200	ug/l	---	21000	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	29400	200	ug/l	---	24100	200	ug/l	---	21000	200	ug/l	---
	Manganese	7439-96-5	1770	8.0	ug/l	---	486	8.0	ug/l	---	5.3	8.0	ug/l	J
	Manganese - Dissolved	7439-96-5	1610	8.0	ug/l	---	40.0	8.0	ug/l	---	3.8	8.0	ug/l	J
	Nickel	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	3050	200	ug/l	---	2250	200	ug/l	---	1940	200	ug/l	---
	Potassium - Dissolved	7440-09-7	3050	200	ug/l	---	2260	200	ug/l	---	2070	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	21800	200	ug/l	---	17800	200	ug/l	---	19300	200	ug/l	---
	Sodium - Dissolved	7440-23-5	19900	200	ug/l	---	16500	200	ug/l	---	19000	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	1.6	4.0	ug/l	J
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	6.6	16.0	ug/l	J
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	50.6	2.40	mg/l	---	88.2	6.00	mg/l	---	55.6	2.40	mg/l	---
	Sulfate	14808-79-8	14.3	0.60	mg/l	---	52.7	30.0	mg/l	---	13.1	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	339	5.0	mg/l	---	226	5.0	mg/l	---	220	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	339	5.0	mg/l	---	226	5.0	mg/l	---	220	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	OB-3-081616				FB-01-081616				OB-17-081616			
		Lab Sample ID:	46011877815				4601187782				4601187783			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.70	1.0	ug/l	J
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	19	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	OB-3-081616				FB-01-081616				OB-17-081616			
		Lab Sample ID:	46011877815				4601187782				4601187783			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	10	ug/l	UJ
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	---	ND	0.053	ug/l	---	ND	0.052	ug/l	---
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	---	ND	0.053	ug/l	---	ND	0.052	ug/l	---
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	---	ND	0.053	ug/l	---	ND	0.052	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	---	ND	0.053	ug/l	---	ND	0.052	ug/l	---
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	---	ND	0.053	ug/l	---	ND	0.052	ug/l	---
	Pentachlorophenol	87-86-5	0.10	0.21	ug/l	J	ND	0.21	ug/l	---	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	OB-3-081616				FB-01-081616				OB-17-081616			
		Lab Sample ID:	46011877815				4601187782				4601187783			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	3.1	4.0	ug/l	J	ND	4.0	ug/l	---	11.4	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	3.4	4.0	ug/l	J	ND	4.0	ug/l	---	10.5	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	16800	200	ug/l	---	ND	200	ug/l	---	92000	200	ug/l	---
	Calcium - Dissolved	7440-70-2	16900	200	ug/l	---	ND	200	ug/l	---	92000	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	1060	120	ug/l	---	ND	120	ug/l	---	1340	120	ug/l	---
	Iron - Dissolved	7439-89-6	ND	120	ug/l	---	ND	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	5190	200	ug/l	---	ND	200	ug/l	---	32200	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	4630	200	ug/l	---	ND	200	ug/l	---	30700	200	ug/l	---
	Manganese	7439-96-5	5.0	8.0	ug/l	J	ND	8.0	ug/l	---	327	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	3.0	8.0	ug/l	J	ND	8.0	ug/l	---	309	8.0	ug/l	---
	Nickel	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	1140	200	ug/l	---	ND	200	ug/l	---	1910	200	ug/l	---
	Potassium - Dissolved	7440-09-7	1150	200	ug/l	---	ND	200	ug/l	---	2100	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	3750	200	ug/l	---	ND	200	ug/l	---	16200	200	ug/l	---
	Sodium - Dissolved	7440-23-5	3310	200	ug/l	---	ND	200	ug/l	---	15100	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	2.23	0.12	mg/l	---	0.20	0.12	mg/l	---	12.9	0.60	mg/l	---
	Sulfate	14808-79-8	9.71	0.60	mg/l	---	ND	0.60	mg/l	---	41.9	3.00	mg/l	J
	APHA-2320B													
	Alkalinity	E-14506	50.1	5.0	mg/l	---	ND	5.0	mg/l	---	333	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	50.1	5.0	mg/l	---	ND	5.0	mg/l	---	333	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	OB-18-081616				OB-10-081616				OB-16-081616			
		Lab Sample ID:	4601187784				4601187785				4601187786			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	OB-18-081616				OB-10-081616				OB-16-081616			
		Lab Sample ID:	4601187784				4601187785				4601187786			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC													
OSW-8270D													
1,1'-Biphenyl	92-52-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
1,2,4,5-Tetrachlorobenzene	95-94-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,2'-oxybis[1-chloropropane]	108-60-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,3,4,6-Tetrachlorophenol	58-90-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4,5-Trichlorophenol	95-95-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4,6-Trichlorophenol	88-06-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4-Dichlorophenol	120-83-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4-Dimethylphenol	105-67-9	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	20	ug/l	---	ND	21	ug/l	---
2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.1	ug/l	---
2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.1	ug/l	---
2-Chloronaphthalene	91-58-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Chlorophenol	95-57-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Methylnaphthalene	91-57-6	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Methylphenol	95-48-7	ND	11	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
2-Nitroaniline	88-74-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Nitrophenol	88-75-5	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
3,3'-Dichlorobenzidine	91-94-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
3-Nitroaniline	99-09-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	20	ug/l	---	ND	21	ug/l	---
4-Bromophenyl phenyl ether	101-55-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Chloro-3-methylphenol	59-50-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Chloroaniline	106-47-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Chlorophenyl phenyl ether	7005-72-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Methylphenol	106-44-5	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Nitroaniline	100-01-6	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	20	ug/l	---	ND	21	ug/l	---
Acenaphthene	83-32-9	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Acenaphthylene	208-96-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Acetophenone	98-86-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Anthracene	120-12-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.1	ug/l	---
Benzaldehyde	100-52-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Benzo[g,h,i]perylene	191-24-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Benzo[k]fluoranthene	207-08-9	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bis(2-chloroethoxy)methane	111-91-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.1	ug/l	---
Butyl benzyl phthalate	85-68-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Caprolactam	105-60-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Carbazole	86-74-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.1	ug/l	---
Di-n-butyl phthalate	84-74-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Di-n-octyl phthalate	117-84-0	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Dibenzofuran	132-64-9	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Diethyl phthalate	84-66-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Dimethyl phthalate	131-11-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Fluoranthene	206-44-0	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Fluorene	86-73-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Hexachlorobutadiene	87-68-3	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Hexachlorocyclopentadiene	77-47-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Hexachloroethane	67-72-1	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isophorone	78-59-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
N-Nitrosodi-n-propylamine	621-64-7	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
N-Nitrosodiphenylamine	86-30-6	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Naphthalene	91-20-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Nitrobenzene	98-95-3	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Phenanthrene	85-01-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Phenol	108-95-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Pyrene	129-00-0	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM													
Benzo[a]anthracene	56-55-3	ND	0.053	ug/l	---	ND	0.051	ug/l	---	ND	0.052	ug/l	---
Benzo[a]pyrene	50-32-8	ND	0.053	ug/l	---	ND	0.051	ug/l	---	ND	0.052	ug/l	---
Benzo[b]fluoranthene	205-99-2	ND	0.053	ug/l	---	ND	0.051	ug/l	---	ND	0.052	ug/l	---
Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.020	ug/l	---	ND	0.021	ug/l	---
Dibenz(a,h)anthracene	53-70-3	ND	0.053	ug/l	---	ND	0.051	ug/l	---	ND	0.052	ug/l	---
Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.020	ug/l	---	ND	0.021	ug/l	---
Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.053	ug/l	---	ND	0.051	ug/l	---	ND	0.052	ug/l	---
Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.20	ug/l	---	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

			Sample Name:	OB-18-081616				OB-10-081616				OB-16-081616			
			Lab Sample ID:	4601187784				4601187785				4601187786			
			Sample Date:	8/16/2016				8/16/2016				8/16/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	25.4	40.0	ug/l	J	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	7.9	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	6.8	4.0	ug/l	---	6.9	4.0	ug/l	---	115	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	7.0	4.0	ug/l	---	6.4	4.0	ug/l	---	77.2	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	39500	200	ug/l	---	14000	200	ug/l	---	143000	200	ug/l	---
	Calcium - Dissolved	7440-70-2	38000	200	ug/l	---	13700	200	ug/l	---	139000	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	1.8	4.0	ug/l	J
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	1.5	4.0	ug/l	J
	Copper	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	ND	120	ug/l	---	187	120	ug/l	---	18000	120	ug/l	---
	Iron - Dissolved	7439-89-6	ND	120	ug/l	---	ND	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	8860	200	ug/l	---	4250	200	ug/l	---	20400	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	7860	200	ug/l	---	3840	200	ug/l	---	18800	200	ug/l	---
	Manganese	7439-96-5	ND	8.0	ug/l	---	26.2	8.0	ug/l	---	3690	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	ND	8.0	ug/l	---	ND	8.0	ug/l	---	3110	8.0	ug/l	---
	Nickel	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	400	200	ug/l	---	1300	200	ug/l	---	10800	200	ug/l	---
	Potassium - Dissolved	7440-09-7	374	200	ug/l	---	1260	200	ug/l	---	10700	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	6010	200	ug/l	---	3860	200	ug/l	---	42200	200	ug/l	---
	Sodium - Dissolved	7440-23-5	5000	200	ug/l	---	3310	200	ug/l	---	37300	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	1.61	0.24	mg/l	---	4.41	0.12	mg/l	---	69.1	2.40	mg/l	---
	Sulfate	14808-79-8	9.98	0.60	mg/l	---	5.63	0.60	mg/l	---	4.61	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	132	5.0	mg/l	---	52.1	5.0	mg/l	---	425	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	132	5.0	mg/l	---	52.1	5.0	mg/l	---	425	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	OB-28-081616				Dup-01-081616				OB-29-081616			
		Lab Sample ID:	4601187787				4601187788				4601187789			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	OB-28-081616				Dup-01-081616				OB-29-081616			
		Lab Sample ID:	4601187787				4601187788				4601187789			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	11	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
	2-Nitroaniline	88-74-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Butyl benzyl phthalate	85-68-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Di-n-octyl phthalate	117-84-0	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[a]pyrene	50-32-8	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[b]fluoranthene	205-99-2	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.21	ug/l	---	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	OB-28-081616				Dup-01-081616				OB-29-081616			
		Lab Sample ID:	4601187787				4601187788				4601187789			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	1190	40.0	ug/l	---	24.6	40.0	ug/l	J	1180	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	84.7	4.0	ug/l	---	6.7	4.0	ug/l	---	13.5	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	74.5	4.0	ug/l	---	6.6	4.0	ug/l	---	6.6	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	140000	200	ug/l	---	39400	200	ug/l	---	14100	200	ug/l	---
	Calcium - Dissolved	7440-70-2	139000	200	ug/l	---	38100	200	ug/l	---	13800	200	ug/l	---
	Chromium	7440-47-3	1.9	4.0	ug/l	J	ND	4.0	ug/l	---	2.1	4.0	ug/l	J
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	2.3	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	5.0	4.0	ug/l	---	ND	4.0	ug/l	---	3.9	4.0	ug/l	J
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	2160	120	ug/l	---	ND	120	ug/l	---	1530	120	ug/l	---
	Iron - Dissolved	7439-89-6	ND	120	ug/l	---	ND	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1	0.79	1.2	ug/l	J	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	32700	200	ug/l	---	8740	200	ug/l	---	4570	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	30200	200	ug/l	---	7820	200	ug/l	---	3860	200	ug/l	---
	Manganese	7439-96-5	4140	8.0	ug/l	---	ND	8.0	ug/l	---	36.6	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	3470	8.0	ug/l	---	ND	8.0	ug/l	---	ND	8.0	ug/l	---
	Nickel	7440-02-0	3.5	4.0	ug/l	J	ND	4.0	ug/l	---	2.4	4.0	ug/l	J
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	4430	200	ug/l	---	399	200	ug/l	---	1520	200	ug/l	---
	Potassium - Dissolved	7440-09-7	4200	200	ug/l	---	384	200	ug/l	---	1300	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	26800	200	ug/l	---	5990	200	ug/l	---	3890	200	ug/l	---
	Sodium - Dissolved	7440-23-5	24300	200	ug/l	---	4960	200	ug/l	---	3320	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	2.5	4.0	ug/l	J	ND	4.0	ug/l	---	2.3	4.0	ug/l	J
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	7.9	16.0	ug/l	J
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	102	12.0	mg/l	---	1.62	0.24	mg/l	---	4.34	0.12	mg/l	---
	Sulfate	14808-79-8	21.8	0.60	mg/l	---	10.0	0.60	mg/l	---	5.63	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	385	5.0	mg/l	---	124	5.0	mg/l	---	50.1	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	385	5.0	mg/l	---	124	5.0	mg/l	---	50.1	5.0	mg/l	---

APPENDIX 4

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	OB-13-081616				OB-14A-081616				OB-14B-081616				OB-24-081616				RW-16-081616			
		Lab Sample ID:	46011877810				46011877811				46011877812				46011877813				46011877814			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016				8/16/2016				8/16/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC																						
	OSW-8270D																					
	2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
General Chemistry																						
	OSW-9056A																					
	Sulfate	14808-79-8																				

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

	Sample Name:	OB-3-081616				FB-01-081616				OB-17-081616				OB-18-081616				OB-10-081616			
	Lab Sample ID:	46011877815				4601187782				4601187783				4601187784				4601187785			
	Sample Date:	8/16/2016				8/16/2016				8/16/2016				8/16/2016				8/16/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS SVOC																					
OSW-8270D																					
2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	10	ug/l	UJ
General Chemistry																					
OSW-9056A																					
Sulfate	14808-79-8									41.9	3.00	mg/l	J								

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118778-1

		Sample Name:	OB-16-081616				OB-28-081616				Dup-01-081616				OB-29-081616			
		Lab Sample ID:	4601187786				4601187787				4601187788				4601187789			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016				8/16/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC																		
OSW-8270D																		
2-Methylphenol	95-48-7		ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
General Chemistry																		
OSW-9056A																		
Sulfate	14808-79-8																	

APPENDIX 5

September 02, 2016

Tim Roeper
Cornerstone EG
100 Crystal Run Road
Suite 101
Middletown, NY 10941

CADENA project ID: E203361
Project: Ford Ringwood Mines Project
Project number:
Client project scope reference: Sample COC only was used to define project analytical requirements.
Laboratory: TestAmerica - Edison
Laboratory submittal: 118778-1
Sample date: 2016-08-16
Report received by CADENA: 2016-09-01
Initial Data Verification completed by CADENA: 2016-09-02

The following minor QC exceptions or missing information were noted:

LCS - GCMS SVOC QC batch 385957 LCS recoveries were outliers biased low for the following analytes: 2-METHYLPHENOL. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: 2-METHYLPHENOL - ALL SAMPLES.

MSD - SULFATE sample -003 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased high. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected.

MSD - GCMS SVOC sample -010 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased low for the following analytes: 2-METHYLPHENOL. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

TIC - GCMS VOC Tentatively Identified Compounds (TIC's) detected results should be considered to be estimated and qualified with NJ flags.

GCMS SVOC QC batch 387153, 387247 and GCMS VOC QC batch 386373 CCV response outliers as noted in the laboratory submittal case narrative were not used to qualify client sample results as part of this level 2 data package verification review.

GCMS VOC TRIP blanks had detections above the RL for the following analytes: METHYLENE CHLORIDE. Qualification of client sample results was not required based on these TRIP blank detections.

GCMS SVOC sample -002 through -015 (all samples) and batch 385957 method blank and LCS and matrix spike surrogate recovery outliers (1 out of 3 acid fraction biased high) did not result in qualification of client sample data.

PCB sample -010MSD surrogate recovery outliers did not result in qualification of client sample data.

PCB sample -010 MS/MSD recoveries were outliers biased high for the following analytes: AROCLOR 1260, AROCLOR 1016. Associated client sample results were non-detect so qualification was not required based on these high bias QC outliers.

METALS sample -003 MS and or MSD recovery outliers were not used to qualify results for CALCIUM due to high levels of these target analytes in the original sample relative to the spike concentration (4X rule).

CHLORIDE sample -003 MS or MSD recoveries but not both or RPD only were outliers so client sample results were not qualified based on these QC outliers alone.

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

14 Water sample(s) were analyzed for GCMS VOC, GCMS SVOC, GC Other, Metals, General Chemistry and MISC parameter(s). 1 Trip blank was analyzed for GCMS VOC parameters.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, LCS/LCD RPD, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Qualifiers added during verification have been added to the electronic data which is available for download from the CADENA CLMS. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory analytical report access the CADENA CLMS at http://clms.cadenaco.com/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
J-	The result is an estimated quantity, but the result may be biased low.
JB	NON-DETECT AT THE CONCENTRATION REPORTED AND ESTIMATED
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
JUB	NON-DETECT AT THE REPORTING LIMIT AND ESTIMATED
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

460-118778 Chain of Custody

CHAIN OF CUSTODY REQUEST

Page 1 of 2

Name (for report and invoice) Tim Roeper	Samplers Name (Printed) Robert Lautenberg	Site/Project Identification Ford - Ringwood
Company Cornerstone Environmental Group	P. O. # 140802-015	State (Location of site): NJ: X NY: Other:
Address 100 Crystal Run Rd Suite 101	Analysis Turnaround Time: Standard X	Regulatory Program: DKQP:
City Middletown State NY 10941	Rush Charges Authorized For: 2 Week, 1 Week, Other	LAB USE ONLY Project No:
Phone 845 695 0200 Fax		Job No: 118778

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + TICs 8260B	TCL SVOC + TICs 8270C	TAL Metals - Total + Filtered (as applicable)	PCB's	Alkalinity, Total as CaCO3 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	Sample Numbers
TB-01-081616	8/16/16	-	BW	3	✓				✓	✓	✓	✓	-1
FB-01-081616	8/16/16	09:00	BW	13	✓	✓	✓	✓	✓	✓	✓	✓	-2
OB-17-081616	8/16/16	09:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-3
OB-18-081616	8/16/16	10:10	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-4
OB-10-081616	8/16/16	10:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-5
OB-16-081616	8/16/16	11:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-6
OB-28-081616	8/16/16	12:05	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-7
Dup-01-081616	8/16/16	12:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-8
OB-29-081616	8/16/16	11:40	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-9
OB-13-081616	8/16/16	14:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-10
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH Soil:													
6 = Other _____, 7 = Other _____ Water:													

Special Instructions Do not report 1,4 Dioxane for VOC's & SVOC's

Water Metals Filtered (Yes/No)? No

	Company	Date / Time	Received by	Company
Relinquished by 1)	Cornerstone	8/17/16 800	1)	TA
Relinquished by 2)	TA	8/17/16 1510	2) Alex Acierno	TA
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578) IR7 - NOES 30/09/02/08/04

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice): Tim Roeper	Samplers Name (Printed): Robert Lawrence Tenberg	Site/Project Identification: Ford - Ringwood
Company: Cornerstone Environmental Group	P. O. #: 140802-015	State (Location of site): NJ: X NY: Other:
		Regulatory Program: DKQP:
Address: 100 Crystal Run Rd, Suite 101	Analysis Turnaround Time: Standard X	
City: Middletown State: NY 10941	Rush Charges Authorized For: 2 Week / 1 Week / Other	
Phone: 845-695-0200 Fax:		

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOCs 15 TICs 8260B	TCL SVOCs 15 TICs 8270C	TAL Metals Total + Filtered for GW only	PCBs	Alkalinity, Total as $CaCO_3$ 2320B	Chloride 300.0	Sulfate 300.0	Cyanide				LAB USE ONLY Project No: / Job No: 718778 / Sample Numbers
OB-13-081616 MS	8/16/16	14:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-10
OB-13-081616 MSD	8/16/16	14:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-10
OB-14A-081616	8/16/16	14:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-11
OB-14B-081616	8/16/16	14:35	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-12
OB-24-081616	8/16/16	15:40	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-13
RW-16-081616	8/16/16	15:45	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-14
OB-3-081616	8/16/16	16:10	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-15
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH				Soil:												
6 = Other _____, 7 = Other _____				Water:												

Special Instructions Do not report 1,4 Dioxane for VOCs + SVOCs Water Metals Filtered (Yes/No)? No

Relinquished by	Company: Cornerstone	Date / Time: 8/17/16 8:00	Received by 1): [signature] Company: TA
Relinquished by 2): [signature]	Company: TestAmerica	Date / Time: 8/17/16 1610	Received by 2): Company:
Relinquished by 3):	Company:	Date / Time:	Received by 3): Company:
Relinquished by 4):	Company:	Date / Time:	Received by 4): Company:

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578) FR7 - NOCS

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
SOW available?				**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**
Scope validation criteria referenced				**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**
Lab certifications required				**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**
Lab single blind PE samples completed				**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**
SAMPLING ISSUES				NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS															
holding times				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
preservation				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
temperature of cooler - degrees C				**0.2 to 3.0**	**0.2 to 3.0**	**0.2 to 3.0**	**0.2 to 3.0**	**0.2 to 3.0**	**0.2 to 3.0**	**0.2 to 3.0**	**0.2 to 3.0**	**0.2 to 3.0**	**0.2 to 3.0**	**0.2 to 3.0**	**0.2 to 3.0**
COC discrepancies				**minor**	**minor**	**minor**	**minor**	**minor**	**minor**	**minor**	**minor**	**minor**	**minor**	**minor**	**minor**
sample integrity (containers, amounts)				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
ANALYTICAL/PREP GENERAL				**8260C**	**8260C SIM**	**8270D**	**SVOC-SIM**	**PCB**	**METALS-D**	**METALS -T**	**MERCURY-D**	**MERCURY-T**	**CYANIDE**	**CL/SO4**	**ALK**
prep batch		LAB		**NA**	**NA**	**385957**	**385957**	**386152**	**386733 386739**	**386939**	**386530 386531**	**386295**	**387026 387699**	**NA**	**NA**
prep date		LAB		**NA**	**NA**	**21-Aug**	**21-Aug**	**22-Aug**	**25-Aug**	**8/26/2016**	**24-Aug**	**23-Aug**	**8/26/2016 8/30**	**NA**	**NA**
analytical batch		LAB		**386373**	**386244, 386381**	**387153, 387247**	**386477, 386797, 387262**	**386237 386235**	**386872 386342 387280**	**386872 386342 387280**	**386295 386526**	**386295 386526**	**387210 387726**	**385734 385736 386598**	**385583 386086**
analytical date		LAB		**8/23, 8/24**	**23-Aug**	**8/27/2016 - 8/28**	**8/24, 8/26, 8/28**	**23-Aug**	**8/25/2016 8/26 8/27**	**8/25/2016 8/26 8/27**	**8/23/2016 8/24**	**8/23/2016 8/24**	**8/27/2016 8/30**	**8/19/2016 8/17 8/25**	**8/18/2016 8/22**
instrument ID		LAB		**CVOAMS12**	**CVOAMS11**	**CBNAMS4/CBNAMS6**	**CBNAMS9**	**CPESTGC11 CPESTGC8**	**ICPMS2**	**ICPMS3**	**LEEMAN6**	**LEEMAN6**	**LACHAT3**	**IC A**	**NA**
Instrument Tune		METHOD	tune	**OK**	**OK**	**OK**	**OK**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**
Instrument Performance Checks		METHOD	tailing, degradation	**NA**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
ICAL (Initial Calibration Curve)	CURVE ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	**57544**	**57303**	**57424/57429/ 57159/57491**	**57255,**	**56319 56320 56325**	**OK**	**OK**	**OK**	**OK**	**OK**	**57277**	**NA**
ICAL (Initial Calibration Curve)	CURVE DATE	METHOD		**23-Aug**	**19-Aug**	**8/22/2016 - 8/9 - 8/23**	**15-Aug**	**17-Jun**	**OK**	**OK**	**OK**	**OK**	**OK**	**17-Aug**	**NA**
ICV (Initial Calibration Verification)		METHOD	max 30%	**OK**	**OK**	**NO RAW DATA**	**NO RAW DATA**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**385365**	**NA**
CCV (Continuing Calibration Verification)		METHOD	max 20%/50%	**386373 - HIGH - BM**	**OK**	**387153 - HIGH - 4NP, 246TBP, PCP 387247 - PHENOL, 2CP, 2FP**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
Target Compound Lists		SCOPE/COC		**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Reporting Limits (RL/PQL/LOQ) compliant		SCOPE	1.0 ug/l	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Blanks-method/calibration	method blank	NFG		**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
LCS (Laboratory Control Spikes)		lab control limits	by method	**OK**	**OK**	**385957 - LOW - 2MP**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
MS/MSD (Matrix Spikes)		lab control limits	by method	**SAMP -010 OK**	**NONE**	**SAMP -010 - MS/MSD LOW - 2MP MSD ONLY - INDENO HIGH**	**NONE**	**SAMP -010 - 1260 HIGH MS/MSD, 1016 HIGH MSD ONLY**	**OK**	**SAMP - 010 - HIGH - CA - 4X RULE**	**OK**	**OK**	**OK**	**SAMP- 010 - OK SAMP-003 - HIGH - MS/MSD SULFATE, CL MSD ONLY**	**NA**
Sample duplicates		lab control limits	NA	**NA**	**NA**	**NA**	**NA**	**NA**	**OK**	**OK**	**OK**	**OK**	**NA**	**NA**	**OK**
Internal standard reponses/RRT		METHOD	50-200%	**OK**	**OK**	**OK**	**OK**	**1 INTERNAL STANDARD - ALL OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Surrogate recoveries		lab control limits	SVOC BN surrogates	**OK**	**OK**	**TBP HIGH - ALL SAMPLES**	**OK**	**confirmation column outliers only**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Qualitative criteria met		METHOD		**OK**	**OK**	**OK**	**OK**	**SECOND COLUMN CHECK - P FLAG - 02, 3,6,7,10, 10MS, 10MSD - TCX**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
TICS (Tentatively Identified Compounds)		METHOD		**YES**	**NO**	**NO**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
TIC blanks		NFG		**NA**	**NA**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Trip blanks		NFG		**ND**	**ND**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Field blanks		NFG		**OK**	**OK**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Field duplicates		SCOPE		**NA**	**NA**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Post Digestion Spikes (PDS)		METHOD		**NA**	**NA**	**NA**	**NA**	**NA**	**SAMP -010 - HIGH - BA, NA, CA.**	**SAMP -010 - HIGH - BA, NA, CA.**	**NA**	**NA**	**NA**	**NA**	**NA**
Serial Dilution (SD)		METHOD		**NA**	**NA**	**NA**	**NA**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**
CRQL checks performed?		SCOPE		**NA**	**NA**	**NA**	**NA**	**NA**	**OK**	**OK**	**OK**	**OK**	**NA**	**NA**	**NA**
E flagging required		LAB		**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
GENERAL QC TRACKING															
Control Limits		SCOPE	see above	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**
Certificates of Analysis for primary standards		VENDOR	required for NIST trace	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**
Working/Intermediate standard prep calculations		LAB	prep log	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Prep technique		not specified	VARIES	**5030**	**5030**	**3510C**	**3510C**	**3510C**	**3010A**	**3010A**	**NA**	**NA**	**NA**	**NA**	**NA**
Prep sample volumes/mass		not specified	VARIES	**5**	**5**	**250**	**250**	**250**	**50 10**	**50 10**	**50 30**	**30**	**5**	**NA**	**50**
OVERALL							**NO**								
Data Reportable?				**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**
Comments (other)						**LVE/HVI - 250ML/2ML-5UL**		**LVE - 250 ML**							

E-Mail Date: 2016-09-26
E-Mail To: tim.roeper@cornerstoneeg.com
cc:

U.S. Mail: Tim Roeper
Cornerstone Environmental Group
100 Crystal Run Road, Suite 101
Middletown, NY 10941

ANALYTICAL DATA VALIDATION REPORT
Ringwood Mines/Landfill
Ford Motor Company
PROJECT 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED August 17, 2016
DATA PACKAGE RECEIVED September 9, 2016
SUBMITTAL #: 460-118817-1

PREPARED BY:
CADENA, INC.
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Contact: Jim Tomalia (jtomalia@cadenaco.com)
Date: 2016-09-26
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TABLE OF CONTENTS

LISTS OF APPNEDICES

(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by TestAmerica-Edison Laboratory the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	GCMS VOC	GCMS VOC SIM	OSW-SVOC	GCMS SVOC SIM	OSW-PCB	Dissolved Metals by ICP MS	Total Metals by ICP MS	Mercury (Manual Cold Vapor) (D)	Mercury (Manual Cold Vapor) (T)	TOTAL CYANIDE	SULFATE CHLORIDE by IC	Alkalinity
46011881714	TB-02-081716	8/17/2016	x	x										
4601188171	OB-30C-081716	8/17/2016	x	x	x	x	x	x	x	x	x	x	x	x
46011881710	SC-2-081716	8/17/2016	x	x	x	x	x	x	x	x	x	x	x	x
46011881711	OB-27-081716	8/17/2016	x	x	x	x	x	x	x	x	x	x	x	x
46011881712	OB-19-081716	8/17/2016	x	x	x	x	x	x	x	x	x	x	x	x
46011881713	OB-4-081716	8/17/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601188172	OB-33-081716	8/17/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601188173	OB-12-081716	8/17/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601188174	OB-30B-081716	8/17/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601188175	OB-15B-081716	8/17/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601188176	OB-2-081716	8/17/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601188177	OB-32-081716	8/17/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601188178	OB-11R-081716	8/17/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601188179	OB-31-081716	8/17/2016	x	x	x	x	x	x	x	x	x	x	x	x

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	*Reference Method*	*Analyte Listing*
GCMS VOC Organics	OSW-8260C	Target Compound List
GCMS VOC Organics-SIM	OSW-8260C-SIM	1,2-Dibromo-3-chloropropane and EDB
Semi-Volatile Organics	OSW-8270D	Target Compound List
Semi-Volatile Organics	OSW-8270D/SIM	PAH, PCP, HCB, B2CEE
GC ECD Semi-Volatiles	OSW-8082A	PCB's
Metals by ICP/MS	OSW-6020A	Target Analyte List(total,dissolved)
Mercury by Cold Vapor	OSW-7470A	Mercury(total, dissolved)
Total Cyanide	OSW-9012B	Total Cyanide
Ion Chromatography	OSW-9056A	Chloride, Sulfate
Alkalinity	APHA-2320B	Alkalinity, Bicarbonate Alkalinity

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard

Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound

	but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

Additional data qualifications based on review of the level 4 data package using laboratory criteria provided if required are noted below. Qualifications that would be required based on comparison to NFG criteria are noted where applicable. These qualifications would be added to the database and associated summary tables in the appendices if applicable.

GCMS VOC

Continuing Calibration Verification (CCV) standard responses were outside of method criteria biased low for BROMOFORM in analytical batches 386113 and 386206. All client sample BROMOFORM results should be considered to be estimated and qualified with UJ flags (all results were non-detect).

The following observations **DID NOT** result in qualification but were noted during the validation review:

GC/MS VOC/SVOC

Certificates of analysis for standards and all working/primary standard concentrations that are required to verify calibration standard concentrations and spike levels were not available in the laboratory data package for review.

GCMS VOC and GCMS SVOC CCV high bias outliers in QC batch 386113 and 386206 for 1,1,2-trichloro-1,2,2-trifluoroethane and QC batch 386897, 387629, 386667 for phenol and pentachlorophenol did not require qualification of client sample results since all associated sample results were non-detect.

GC/MS SVOC

Initial Calibration Verification (ICV) raw data was not available for reconstruction/re-calculation of ICV results.

PCB
No non-conformances were observed.

METALS
No non-conformances were observed.

VERIFICATION SUMMARY

The following qualifications and associated data flags were applied based on the initial level 2 review of this data package.

TBK - GCMS VOC TRIP blanks had detections above the RL for the following analytes: METHYLENE CHLORIDE. The following client sample results should be considered to be non-detect at the RL and qualified with UB flags: METHYLENE CHLORIDE - sample -010.

TIC - GCMS VOC Tentatively Identified Compounds (TIC's) detected results should be considered to be estimated and qualified with NJ flags.

GCMS VOC QC batch 386113, 386206 and GCMS SVOC QC batch 386667, 386897, 387329 CCV response outliers as noted in the laboratory submittal case narrative were not used to qualify client sample results as part of this level 2 data package verification review.

GCMS VOC BATCH 386206 QC results did not include MS/MSD recovery data.

GCMS SVOC batch 386082 LCS or LCSD recoveries but not both or RPD only were outliers so for 2-METHYLPHENOL so were not used to qualify client sample results based on these QC outliers alone.

GCMS SVOC sample -008, -009, -011 surrogate recovery outliers (1 out of 3 acid fraction biased high) did not result in qualification of client sample data.

METALS, PCB QC batch MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

FLUORIDE sample -002 MS or MSD recoveries but not both or RPD only were outliers so client sample results were not qualified based on these QC outliers alone..

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

2.0 VOLATILE ORGANIC COMPOUNDS (VOCs) – METHOD SW846 8260C and SIM ANALYSIS

See Attachments for submittal-specific review summary of QC requirements noted below.

The target analyte list was defined by the client-project as TCL List OLM4.2 for 8260C full scan and as noted in section 1 above for SIM analysis.

2.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) VOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS VOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS VOCs

Initial calibration data for VOCs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS VOCs

Initial calibration data for VOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary..

2.2 CONTINUING CALIBRATION – GC/MS VOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless otherwise noted in the executive summary noted above and qualified in the data tables. Target analytes associated with CCV compounds outside of method criteria were qualified as estimated with J flags if sample results were non-detect and estimated with UJ flags if CCV bias was low and sample results was non-detect and J flags if sample results were detections. Non-detect results were not qualified if CCV bias was high and sample results were non-detect.

2.3 INTERNAL STANDARDS – GC/MS VOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS VOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS VOCs

A laboratory control sample (LCS) was prepared and analyzed for VOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless otherwise noted in the executive summary and as qualified the QAR and ARS data tables found in the appendices.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS VOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS VOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS VOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS VOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS VOCs

Tentatively Identified Compounds (TIC) searches were associated with each sample analysis and should all be considered to be estimated and qualified with NJ flags when detected.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS VOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D and SIM analysis – GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

3.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

3.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

3.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

3.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

3.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

3.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

3.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) was prepared and analyzed for the target analyte SVOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

3.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent

sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

3.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

3.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

3.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

3.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

3.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal..

4.0 POLYCHLORINATED BIPHENYLS (PCBs) – METHOD SW846 8082A

The target analyte list was defined by the client as the standard 7 aroclors.

4.1 CALIBRATION – GAS CHROMATOGRAPH-ECD

4.1.1 TUNING AND MASS CALIBRATION – PCB

Not applicable for this analysis.

4.1.2 INITIAL CALIBRATION – PCB

Initial calibration data for PCBs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

4.1.3 INITIAL CALIBRATION VERIFICATION – PCB

Initial calibration verification (ICV) standards for PCB analyses were reviewed and met criteria specified by the laboratory with no exceptions.

4.2 CONTINUING CALIBRATION – PCBs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary.

4.3 INTERNAL STANDARDS – PCB

Internal standard (IS) data were reviewed and met criteria unless noted otherwise in verification/validation summary. (NOTE: Lab quantitation approach DID use internal standard quantitation for this submittal).

4.4 SURROGATE SPIKE RECOVERIES – PCB

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

4.5 LABORATORY CONTROL SAMPLE ANALYSES - PCB

A laboratory control sample (LCS) was prepared and analyzed for PCBs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary..

4.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - PCB

The MS/MSD recoveries and RPD’s were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

CADENA does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

4.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - PCB

There were no field duplicate comparisons performed as part of this validation request.

4.8 EXTRACT CLEANUP - PCB

Extract cleanups were performed in accordance with laboratory SOP's and as noted in level 4 data package prep logs.

4.9 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - PCB

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

4.10 TENTATIVELY IDENTIFIED COMPOUNDS - PCB

Not requested for this analytical procedure.

4.11 BLANKS – METHOD/FIELD/CALIBRATION - PCB

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

5.0 HPLC/IC – METHOD SW846 9056A – CHLORIDE AND SULFATE

5.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

5.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

5.3 CONTINUTING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

5.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

5.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

5.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

5.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

5.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

6.0 METALS – ICPMS by Method 6020A TOTAL AND DISSOLVED and Mercury by Method 7470A

The following samples provided in this SDG underwent a Level IV review for either/and metals or mercury analyses:

- Method 6020A: ALL
- Method 7470A: ALL

6.1 ICP/MS TUNING AND MASS CALIBRATION

Instrument tuning data were reviewed. Tuning elements were analyzed. All tuning criteria were met for the analyses, indicating proper optimization of the instrumentation.

6.2 INITIAL CALIBRATION

Initial calibration data for metals and mercury were reviewed and met the criteria for linearity of response without exception.

6.3 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards for metals and mercury analyses were reviewed and met criteria unless otherwise noted in verification/validation summary section of this document.

An initial calibration blank (ICB) was analyzed for metals and mercury analyses. Metals and mercury were reported as non-detect in each ICB analysis unless noted otherwise in verification/validation summary.

6.4 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for metals and mercury analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

6.5 INTERFERENCE CHECK STANDARD

The interference check standard results were reviewed and found to meet criteria.

6.6 INTERNAL STANDARDS

Internal standard (IS) data were reviewed and found to meet criteria unless noted otherwise in verification/validation summary.

6.7 LABORATORY CONTROL SAMPLE ANALYSIS

A laboratory control sample (LCS) was prepared and analyzed for metals and mercury. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

6.8 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE (MS/MSD) ANALYSES

The MS/MSD recoveries and RPD's were either not performed using a client sample or were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

6.9 CONTRACT REQUIRED DETECTION LIMIT STANDARD ANALYSES

Each contract required detection limit (CRDL) standard was analyzed at the proper frequency and were within laboratory control limits unless noted otherwise in verification/validation summary.

6.10 ICP SERIAL DILUTION

Serial dilutions were analyzed at the proper frequency and were either not performed using the client sample or were within laboratory control limits unless noted otherwise in verification/validation summary.

6.11 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

6.12 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

6.13 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

7.0 GENERAL CHEMISTRY- TOTAL AND AMENABLE CYANIDE AND ALKALINITY – METHODS 9012B and 2320B

7.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

7.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

7.3 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

7.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

7.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

7.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

7.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

7.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

8.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

8.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding

times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

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All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	***Reference Method***	***Matrix***	***Preservation & Storage***	***Holding Times***
Volatile Organics by GCMS	OSW-8260C/SIM	Water	Acidify ph<2 Refrigeration 0-6oC	14 days
Semivolatile Organics by GCMS	OSW-8270D/SIM	Water	Refrigeration 0-6oC	7 days Extraction 40 days Analysis
Polychlorinated Biphenyls by GC/ECD	OSW-8082A	Water	Refrigeration 0-6oC	365 days - Extraction - Analysis
Metals by ICP/ICPMS Spectroscopy	OSW-6010B OSW-6020A	Water	Acidify pH<2 Refrigeration 0-6oC	180 days
Mercury in Aqueous Waste	OSW-7470A	Water	Acidify pH<2 Refrigeration 0-6oC	28 days
Alkalinity	EPA 2320B	Water	Refrigeration 0-6oC	14 days
Chloride and Sulfate	OSW-9056A	Water	Refrigeration 0-6oC	28 days
Total and Amenable Cyanide	OSW-9012B	Water	Test for presence of Sulfide – if unknown collect two samples and treat one with Lead Carbonate. Then adjust sample to pH of greater than or equal to 12with NaOH. Refrigeration at 0-4C –(also may require treatment for aldehydes and chlorine/hypochlorite/sulfite)	14 days if preserved. 24 hours or sooner if unpreserved

8.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

9.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

10.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: TestAmerica-Edison
Laboratory Submittal: 118817-1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS VOC Volatiles	GCMS VOC SIM	OSW-8270D	GCMS SVOC SIM	OSW-8082A	Metals by ICP Mass Spectroscopy(D)	Metals by ICP Mass Spectroscopy	Mercury (Manual Cold Vapor)(D)	Mercury (Manual Cold Vapor)	TOTAL AND AMENABLE CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Anions by IC	Alkalinity Prep
4601188171	OB-30C-081716	8/17/2016	10:30:00	X	X	X	X	X	X	X	X	X	X	X	X
46011881710	SC-2-081716	8/17/2016	3:00:00	X	X	X	X	X	X	X	X	X	X	X	X
46011881711	OB-27-081716	8/17/2016	4:05:00	X	X	X	X	X	X	X	X	X	X	X	X
46011881712	OB-19-081716	8/17/2016	5:20:00	X	X	X	X	X	X	X	X	X	X	X	X
46011881713	OB-4-081716	8/17/2016	5:35:00	X	X	X	X	X	X	X	X	X	X	X	X
46011881714	TB-02-081716	8/17/2016	12:00:00	X	X										
4601188172	OB-33-081716	8/17/2016	11:05:00	X	X	X	X	X	X	X	X	X	X	X	X
4601188173	OB-12-081716	8/17/2016	11:10:00	X	X	X	X	X	X	X	X	X	X	X	X
4601188174	OB-30B-081716	8/17/2016	11:45:00	X	X	X	X	X	X	X	X	X	X	X	X
4601188175	OB-15B-081716	8/17/2016	12:30:00	X	X	X	X	X	X	X	X	X	X	X	X
4601188176	OB-2-081716	8/17/2016	12:50:00	X	X	X	X	X	X	X	X	X	X	X	X
4601188177	OB-32-081716	8/17/2016	1:30:00	X	X	X	X	X	X	X	X	X	X	X	X
4601188178	OB-11R-081716	8/17/2016	2:30:00	X	X	X	X	X	X	X	X	X	X	X	X
4601188179	OB-31-081716	8/17/2016	2:45:00	X	X	X	X	X	X	X	X	X	X	X	X

APPENDIX 2

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

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  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report (Form VII)
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not included with SIM package)
  - FORM I - QC data
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
  - MS and MSD integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Run logs

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

GCMS Semivolatiles Data - Method 8270D and SIM

- QC Summary Data
  - Surrogate recoveries (form II)
  - Check Sample recoveries (form III)
  - Method blank report (form IV)
  - Tuning and mass calibrations (form V) (not applicable for SIM)
  - Internal Standard and RT area summary (form VIII)
- Sample Data
  - GCMS VOA Organics Analysis Data Sheet (Form I)
  - Raw integration data from instrument
  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not applicable for SIM)
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Instrument run logs
  - Extraction bench sheets

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

- Polychlorinated Biphenyls Data (PCB)
  - QC Summary data
    - Surrogate recoveries (form II)
    - Check Sample Recovery data (form III)
    - Method Blank data (form IV)
    - Analytical sequence with RT check (Form VIII)
    - Identification Summary (Form X)
  - Sample Data
    - Organics Analysis Data Sheet (Form I)
    - Raw integration data from instrument
    - Chromatogram
  - Standards Data (both columns)
    - Initial Calibration Data External Standard RT Summary (Form VI)
    - Initial Calibration Data Summary with average RF
    - Raw integration data from instrument with manual integrations where applicable
    - ICAL chromatograms
    - Continuing Calibration Data (Form VII) with RT Summaries
    - ICV raw integration and chromatograms
    - CCV raw integration data from instrument
    - CCV chromatogram
  - Raw QC Data
    - LCS/LCSD sample data report and integration and chromatograms
    - Method blank integration and chromatograms
  - Miscellaneous Data
    - Sequence table (run log)
    - PCB Batch Worksheet
- HPLC/IC - 9056A ORGFM_28D - Anions, Ion Chromatography - Sulfate and Chloride
  - Raw Data and Data Summaries for:
    - LCS/LCSD (form III)
    - MS/MSD (form III)
    - METHOD BLANKS (Form IV)
    - SAMPLE DATA (Form I)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - ICAL (Form VI)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - ICAL (Form VII)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - QC DATA (Form I)
      - Raw instrument data and chromatography
    - Analysis Run Logs

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

METALS DATA (ICPMS and mercury)
- Forms Data
  - Cover Page
  - Inorganic Analysis Data Sheet - Metals Dissolved/Total Recoverable (1A-IN)
  - CCV standard report - mercury and ICPMS (2A-IN)
  - CRQL report - mercury and ICPMS (2B-IN)
  - ICB report - mercury and ICPMS (3-IN)
  - Method blank report (3-IN)
  - Interference check standard A - ICPMS (4A-IN)
  - Interference check standard AB - ICPMS (4A-IN)
  - MS/MSD Sample recovery (5A-IN)
  - PDS Summary (5B-IN)
  - LCS Recovery form (7A-IN)
  - LCS Duplicate Recover (7D-IN)
  - ICP-MS Serial Dilutions (8-IN)
  - Detection Limits Form (9-IN)
  - Linear dynamic ranges - ICPMS (11-IN)
  - Prep log - mercury and ICPMS (12-IN)
  - Run log - ICPMS and Mercury (13-IN)
  - ICP-MS TUNE (14-IN)
  - ICPMS Internal Standards Relative Intensity Summary (15-IN)
- Instrument Printouts
  - ICP-MS Raw instrument data
  - Mercury raw instrument data, run logs and calibrations
- Miscellaneous Data
  - Metals Batch Worksheet

GENERAL CHEMISTRY - Total and Amenable Cyanide and Alkalinity
- Cover Page
- Raw Data and Data Summaries for:
  - Sample Data (Form 1B-IN)
  - CCV/CCB (Form 2-IN)
  - METHOD BLANKS (Form 3-IN)
  - MATRIX SPIKES (Form 5-IN)
  - Sample DUPLICATES (Form 6-IN)
  - LCS/LCSD (Form 7-IN)
  - Detection Limits Form (9-IN)
  - Prep log (12-IN)
  - Analysis Run Logs (13-IN)
  - Raw Data - instrument sample sequence and calibration curve
  - Alkalinity Reagents
  - Alkalinity pH meter calibration
  - Alkalinity sequence log and raw data
  - General Chemistry Batch Worksheets

Shipping and Receiving Documents
- COC forms
- Cooler Receipt Form, checklist and narrative

APPENDIX 3

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

		Sample Name:	OB-30C-081716				SC-2-081716				OB-27-081716			
		Lab Sample ID:	4601188171				46011881710				46011881711			
		Sample Date:	8/17/2016				8/17/2016				8/17/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6									15	---	ug/l	NJ
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	9.2	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	2.3	1.0	ug/l	---
Benzene, (3-methyl-2-butenyl)- - TIC	4489-84-3									7.5	---	ug/l	NJ
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2									6.4	---	ug/l	NJ
Benzene, 2-ethenyl-1,4-dimethyl- - TIC	2039-89-6												
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	61	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	1.7	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Indane - TIC	496-11-7									9.1	---	ug/l	NJ
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	2.9	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	0.21	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	1.3	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	0.22	1.0	ug/l	UB	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	0.15	1.0	ug/l	J	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

		Sample Name:	OB-30C-081716				SC-2-081716				OB-27-081716			
		Lab Sample ID:	4601188171				46011881710				46011881711			
		Sample Date:	8/17/2016				8/17/2016				8/17/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	---	ND	10	ug/l	---	3.9	10	ug/l	J
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	0.11	0.21	ug/l	J	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

			Sample Name:	OB-30C-081716			SC-2-081716				OB-27-081716			
			Lab Sample ID:	4601188171			46011881710				46011881711			
			Sample Date:	8/17/2016			8/17/2016				8/17/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	238	40.0	ug/l	---	47.8	40.0	ug/l	---	53.3	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	1.3	2.0	ug/l	J	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	0.96	2.0	ug/l	J	ND	2.0	ug/l	---
	Arsenic	7440-38-2	0.82	2.0	ug/l	J	ND	2.0	ug/l	---	22.5	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	0.88	2.0	ug/l	J	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	17.3	4.0	ug/l	---	37.2	4.0	ug/l	---	63.7	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	14.1	4.0	ug/l	---	37.5	4.0	ug/l	---	38.6	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	40100	200	ug/l	---	64900	200	ug/l	---	33200	200	ug/l	---
	Calcium - Dissolved	7440-70-2	39200	200	ug/l	---	70600	200	ug/l	---	34700	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	1.7	4.0	ug/l	J	4.0	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	3.7	4.0	ug/l	J
	Copper	7440-50-8	ND	4.0	ug/l	---	19.8	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	9.2	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	397	120	ug/l	---	331	120	ug/l	---	52100	120	ug/l	---
	Iron - Dissolved	7439-89-6	ND	120	ug/l	---	ND	120	ug/l	---	14300	120	ug/l	---
	Lead	7439-92-1	0.52	1.2	ug/l	J	2.0	1.2	ug/l	---	1.1	1.2	ug/l	J
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	19300	200	ug/l	---	17700	200	ug/l	---	4730	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	18200	200	ug/l	---	17300	200	ug/l	---	4220	200	ug/l	---
	Manganese	7439-96-5	103	8.0	ug/l	---	44.5	8.0	ug/l	---	7410	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	56.2	8.0	ug/l	---	8.8	8.0	ug/l	---	7340	8.0	ug/l	---
	Nickel	7440-02-0	ND	4.0	ug/l	---	2.3	4.0	ug/l	J	2.1	4.0	ug/l	J
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	1.7	4.0	ug/l	J	1.6	4.0	ug/l	J
	Potassium	7440-09-7	5290	200	ug/l	---	3560	200	ug/l	---	1490	200	ug/l	---
	Potassium - Dissolved	7440-09-7	5260	200	ug/l	---	3670	200	ug/l	---	1540	200	ug/l	---
	Selenium	7782-49-2	1.8	10.0	ug/l	J	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	2.6	10.0	ug/l	J	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	9550	200	ug/l	---	8480	200	ug/l	---	3140	200	ug/l	---
	Sodium - Dissolved	7440-23-5	9190	200	ug/l	---	8420	200	ug/l	---	3120	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	5.1	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	4.3	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	39.7	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	36.5	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	34.9	1.20	mg/l	---	5.86	2.40	mg/l	---	5.41	2.40	mg/l	---
	Sulfate	14808-79-8	26.5	6.00	mg/l	---	35.0	12.0	mg/l	---	ND	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	125	5.0	mg/l	---	229	5.0	mg/l	---	125	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	125	5.0	mg/l	---	229	5.0	mg/l	---	125	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

		Sample Name:	OB-19-081716				OB-4-081716				TB-02-081716			
		Lab Sample ID:	46011881712				46011881713				46011881714			
		Sample Date:	8/17/2016				8/17/2016				8/17/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6												
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	0.23	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Benzene, (3-methyl-2-butenyl)- - TIC	4489-84-3												
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2												
Benzene, 2-ethenyl-1,4-dimethyl- - TIC	2039-89-6												
Bromoform	75-25-2	ND	1.0	ug/l	UB	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	1.5	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Indane - TIC	496-11-7												
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	2.9	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

		Sample Name:	OB-19-081716				OB-4-081716				TB-02-081716			
		Lab Sample ID:	46011881712				46011881713				46011881714			
		Sample Date:	8/17/2016				8/17/2016				8/17/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	11	ug/l	---				
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	11	ug/l	---				
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	11	ug/l	---				
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	11	ug/l	---				
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	11	ug/l	---				
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	11	ug/l	---				
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	11	ug/l	---				
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	11	ug/l	---				
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---				
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---				
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---				
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	11	ug/l	---				
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	11	ug/l	---				
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	11	ug/l	---				
	2-Methylphenol	95-48-7	ND	10	ug/l	---	ND	11	ug/l	---				
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	11	ug/l	---				
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	11	ug/l	---				
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	11	ug/l	---				
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	11	ug/l	---				
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---				
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	11	ug/l	---				
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	11	ug/l	---				
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	11	ug/l	---				
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	11	ug/l	---				
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	11	ug/l	---				
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	11	ug/l	---				
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---				
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	11	ug/l	---				
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	11	ug/l	---				
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	11	ug/l	---				
	Anthracene	120-12-7	ND	10	ug/l	---	ND	11	ug/l	---				
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---				
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	11	ug/l	---				
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	11	ug/l	---				
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.1	ug/l	---				
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	11	ug/l	---				
	Bis(2-ethylhexyl) phthalate	117-81-7	1.4	2.1	ug/l	J	ND	2.1	ug/l	---				
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	11	ug/l	---				
	Caprolactam	105-60-2	ND	10	ug/l	---	ND	11	ug/l	---				
	Carbazole	86-74-8	ND	10	ug/l	---	ND	11	ug/l	---				
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---				
	Di-n-butyl phthalate	84-74-2	1.2	10	ug/l	J	ND	11	ug/l	---				
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	11	ug/l	---				
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	11	ug/l	---				
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	11	ug/l	---				
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	11	ug/l	---				
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	11	ug/l	---				
	Fluorene	86-73-7	ND	10	ug/l	---	ND	11	ug/l	---				
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.1	ug/l	---				
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	11	ug/l	---				
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.1	ug/l	---				
	Isophorone	78-59-1	ND	10	ug/l	---	ND	11	ug/l	---				
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.1	ug/l	---				
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	11	ug/l	---				
	Naphthalene	91-20-3	ND	10	ug/l	---	ND	11	ug/l	---				
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.1	ug/l	---				
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	11	ug/l	---				
	Phenol	108-95-2	ND	10	ug/l	---	ND	11	ug/l	---				
	Pyrene	129-00-0	ND	10	ug/l	---	ND	11	ug/l	---				
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	---	ND	0.053	ug/l	---				
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	---	ND	0.053	ug/l	---				
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	---	ND	0.053	ug/l	---				
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---				
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	---	ND	0.053	ug/l	---				
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.021	ug/l	---				
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	---	ND	0.053	ug/l	---				
	Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	0.10	0.21	ug/l	J				

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

			Sample Name:	OB-19-081716				OB-4-081716				TB-02-081716			
			Lab Sample ID:	46011881712				46011881713				46011881714			
			Sample Date:	8/17/2016				8/17/2016				8/17/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---				
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	42.6	40.0	ug/l	---	27.9	40.0	ug/l	J				
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---				
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---				
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---				
	Arsenic	7440-38-2	0.90	2.0	ug/l	J	ND	2.0	ug/l	---				
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---				
	Barium	7440-39-3	99.8	4.0	ug/l	---	52.2	4.0	ug/l	---				
	Barium - Dissolved	7440-39-3	89.3	4.0	ug/l	---	48.7	4.0	ug/l	---				
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---				
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---				
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---				
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---				
	Calcium	7440-70-2	15700	200	ug/l	---	43200	200	ug/l	---				
	Calcium - Dissolved	7440-70-2	16300	200	ug/l	---	45500	200	ug/l	---				
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Cobalt	7440-48-4	ND	4.0	ug/l	---	2.1	4.0	ug/l	J				
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Copper	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Iron	7439-89-6	21200	120	ug/l	---	5850	120	ug/l	---				
	Iron - Dissolved	7439-89-6	946	120	ug/l	---	528	120	ug/l	---				
	Lead	7439-92-1	0.47	1.2	ug/l	J	ND	1.2	ug/l	---				
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---				
	Magnesium	7439-95-4	3190	200	ug/l	---	14800	200	ug/l	---				
	Magnesium - Dissolved	7439-95-4	2840	200	ug/l	---	14000	200	ug/l	---				
	Manganese	7439-96-5	329	8.0	ug/l	---	1400	8.0	ug/l	---				
	Manganese - Dissolved	7439-96-5	297	8.0	ug/l	---	1470	8.0	ug/l	---				
	Nickel	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Potassium	7440-09-7	1010	200	ug/l	---	2470	200	ug/l	---				
	Potassium - Dissolved	7440-09-7	1030	200	ug/l	---	2470	200	ug/l	---				
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---				
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---				
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---				
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---				
	Sodium	7440-23-5	3670	200	ug/l	---	92700	200	ug/l	---				
	Sodium - Dissolved	7440-23-5	3630	200	ug/l	---	87800	200	ug/l	---				
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---				
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---				
	Vanadium	7440-62-2	2.6	4.0	ug/l	J	ND	4.0	ug/l	---				
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---				
	Zinc	7440-66-6	7.1	16.0	ug/l	J	ND	16.0	ug/l	---				
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---				
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---				
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---				
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---				
	OSW-9056A													
	Chloride	16887-00-6	5.79	2.40	mg/l	---	170	12.0	mg/l	---				
	Sulfate	14808-79-8	1.10	0.60	mg/l	---	17.7	0.60	mg/l	---				
	APHA-2320B													
	Alkalinity	E-14506	56.9	5.0	mg/l	---	109	5.0	mg/l	---				
	Bicarbonate Alkalinity as CaCO3	E-14508	56.9	5.0	mg/l	---	109	5.0	mg/l	---				

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

		Sample Name:	OB-33-081716				OB-12-081716				OB-30B-081716			
		Lab Sample ID:	4601188172				4601188173				4601188174			
		Sample Date:	8/17/2016				8/17/2016				8/17/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6												
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Benzene, (3-methyl-2-butenyl)- - TIC	4489-84-3												
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2												
Benzene, 2-ethenyl-1,4-dimethyl- - TIC	2039-89-6												
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Indane - TIC	496-11-7												
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

		Sample Name:	OB-33-081716				OB-12-081716				OB-30B-081716			
		Lab Sample ID:	4601188172				4601188173				4601188174			
		Sample Date:	8/17/2016				8/17/2016				8/17/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitroaniline	88-74-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	0.84	2.1	ug/l	J	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Butyl benzyl phthalate	85-68-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Di-n-octyl phthalate	117-84-0	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[a]pyrene	50-32-8	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[b]fluoranthene	205-99-2	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.21	ug/l	---	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

		Sample Name:	OB-33-081716				OB-12-081716				OB-30B-081716			
		Lab Sample ID:	4601188172				4601188173				4601188174			
		Sample Date:	8/17/2016				8/17/2016				8/17/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	317	40.0	ug/l	---	33.9	40.0	ug/l	J	39.8	40.0	ug/l	J
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	24.6	4.0	ug/l	---	2.3	4.0	ug/l	J	39.7	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	17.3	4.0	ug/l	---	2.0	4.0	ug/l	J	39.6	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	12600	200	ug/l	---	6410	200	ug/l	---	26900	200	ug/l	---
	Calcium - Dissolved	7440-70-2	13000	200	ug/l	---	6560	200	ug/l	---	27900	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	2.4	4.0	ug/l	J	ND	4.0	ug/l	---	2.0	4.0	ug/l	J
	Cobalt - Dissolved	7440-48-4	1.8	4.0	ug/l	J	ND	4.0	ug/l	---	1.5	4.0	ug/l	J
	Copper	7440-50-8	ND	4.0	ug/l	---	4.2	4.0	ug/l	---	2.4	4.0	ug/l	J
	Copper - Dissolved	7440-50-8	2.0	4.0	ug/l	J	3.1	4.0	ug/l	J	1.9	4.0	ug/l	J
	Iron	7439-89-6	446	120	ug/l	---	54.6	120	ug/l	J	63.2	120	ug/l	J
	Iron - Dissolved	7439-89-6	ND	120	ug/l	---	ND	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	5880	200	ug/l	---	2680	200	ug/l	---	6540	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	5030	200	ug/l	---	2360	200	ug/l	---	5960	200	ug/l	---
	Manganese	7439-96-5	40.7	8.0	ug/l	---	ND	8.0	ug/l	---	1180	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	18.3	8.0	ug/l	---	ND	8.0	ug/l	---	1030	8.0	ug/l	---
	Nickel	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	2.7	4.0	ug/l	J
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	2.4	4.0	ug/l	J
	Potassium	7440-09-7	1030	200	ug/l	---	526	200	ug/l	---	3340	200	ug/l	---
	Potassium - Dissolved	7440-09-7	960	200	ug/l	---	537	200	ug/l	---	3310	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	5690	200	ug/l	---	2490	200	ug/l	---	31600	200	ug/l	---
	Sodium - Dissolved	7440-23-5	5780	200	ug/l	---	2190	200	ug/l	---	30100	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	2.0	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	1.64	0.12	mg/l	---	1.04	0.12	mg/l	---	39.6	2.40	mg/l	---
	Sulfate	14808-79-8	12.6	0.60	mg/l	---	10.4	0.60	mg/l	---	32.7	12.0	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	44.2	5.0	mg/l	---	20.1	5.0	mg/l	---	60.3	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	44.2	5.0	mg/l	---	20.1	5.0	mg/l	---	60.3	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

		Sample Name:	OB-15B-081716				OB-2-081716				OB-32-081716			
		Lab Sample ID:	4601188175				4601188176				4601188177			
		Sample Date:	8/17/2016				8/17/2016				8/17/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6												
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Benzene, (3-methyl-2-butenyl)- - TIC	4489-84-3												
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2												
Benzene, 2-ethenyl-1,4-dimethyl- - TIC	2039-89-6												
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.39	1.0	ug/l	J
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Indane - TIC	496-11-7												
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

		Sample Name:	OB-15B-081716				OB-2-081716				OB-32-081716			
		Lab Sample ID:	4601188175				4601188176				4601188177			
		Sample Date:	8/17/2016				8/17/2016				8/17/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	20	ug/l	---	ND	20	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	20	ug/l	---	ND	20	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	20	ug/l	---	ND	20	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Di-n-butyl phthalate	84-74-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	---	ND	0.051	ug/l	---	ND	0.051	ug/l	---
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	---	ND	0.051	ug/l	---	ND	0.051	ug/l	---
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	---	ND	0.051	ug/l	---	ND	0.051	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	---	ND	0.051	ug/l	---	ND	0.051	ug/l	---
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	---	ND	0.051	ug/l	---	ND	0.051	ug/l	---
	Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

		Sample Name:	OB-15B-081716				OB-2-081716				OB-32-081716			
		Lab Sample ID:	4601188175				4601188176				4601188177			
		Sample Date:	8/17/2016				8/17/2016				8/17/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	244	40.0	ug/l	---	52.0	40.0	ug/l	---	52.6	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	15.2	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	0.78	2.0	ug/l	J	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	28.0	4.0	ug/l	---	5.3	4.0	ug/l	---	56.4	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	ND	4.0	ug/l	---	5.7	4.0	ug/l	---	29.5	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	21300	200	ug/l	---	12000	200	ug/l	---	37500	200	ug/l	---
	Calcium - Dissolved	7440-70-2	22200	200	ug/l	---	12500	200	ug/l	---	38800	200	ug/l	---
	Chromium	7440-47-3	1.5	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	1.9	4.0	ug/l	J	4.1	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	1.8	4.0	ug/l	J	ND	4.0	ug/l	---
	Iron	7439-89-6	640	120	ug/l	---	133	120	ug/l	---	65800	120	ug/l	---
	Iron - Dissolved	7439-89-6	ND	120	ug/l	---	ND	120	ug/l	---	20800	120	ug/l	---
	Lead	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	5970	200	ug/l	---	4930	200	ug/l	---	5460	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	5250	200	ug/l	---	4340	200	ug/l	---	4840	200	ug/l	---
	Manganese	7439-96-5	1200	8.0	ug/l	---	16.0	8.0	ug/l	---	9370	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	136	8.0	ug/l	---	ND	8.0	ug/l	---	9300	8.0	ug/l	---
	Nickel	7440-02-0	11.4	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	690	200	ug/l	---	1340	200	ug/l	---	2370	200	ug/l	---
	Potassium - Dissolved	7440-09-7	697	200	ug/l	---	1360	200	ug/l	---	2360	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	4040	200	ug/l	---	3920	200	ug/l	---	3910	200	ug/l	---
	Sodium - Dissolved	7440-23-5	4090	200	ug/l	---	3890	200	ug/l	---	3900	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	1.8	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	1.65	0.12	mg/l	---	1.81	0.12	mg/l	---	5.74	2.40	mg/l	---
	Sulfate	14808-79-8	11.4	0.60	mg/l	---	8.94	0.60	mg/l	---	ND	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	74.4	5.0	mg/l	---	36.2	5.0	mg/l	---	159	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	74.4	5.0	mg/l	---	36.2	5.0	mg/l	---	159	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

		Sample Name:	OB-11R-081716				OB-31-081716			
		Lab Sample ID:	4601188178				4601188179			
		Sample Date:	8/17/2016				8/17/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC									
OSW-8260C									
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6								
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	3.2	1.0	ug/l	---	0.14	1.0	ug/l	J
Benzene, (3-methyl-2-butenyl)- - TIC	4489-84-3								
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2								
Benzene, 2-ethenyl-1,4-dimethyl- - TIC	2039-89-6	6.5	---	ug/l	NJ				
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	24	1.0	ug/l	---	4.9	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	0.43	1.0	ug/l	J	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	2.8	1.0	ug/l	---	0.41	1.0	ug/l	J
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Indane - TIC	496-11-7								
Isopropylbenzene	98-82-8	0.83	1.0	ug/l	J	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	0.74	1.0	ug/l	J	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM									
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

		Sample Name:	OB-11R-081716				OB-31-081716			
		Lab Sample ID:	4601188178				4601188179			
		Sample Date:	8/17/2016				8/17/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC										
OSW-8270D										
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	20	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.0	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.0	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	20	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	20	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.0	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.1	ug/l	---	ND	2.0	ug/l	---
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.0	ug/l	---
	Di-n-butyl phthalate	84-74-2	ND	10	ug/l	---	ND	10	ug/l	---
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM										
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	---	ND	0.050	ug/l	---
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	---	ND	0.050	ug/l	---
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	---	ND	0.050	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.020	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	---	ND	0.050	ug/l	---
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.020	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	---	ND	0.050	ug/l	---
	Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	0.10	0.20	ug/l	J

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

			Sample Name:	OB-11R-081716			OB-31-081716			
			Lab Sample ID:	4601188178			4601188179			
			Sample Date:	8/17/2016			8/17/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other										
	OSW-8082A									
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals										
	OSW-6020A									
	Aluminum	7429-90-5	34.5	40.0	ug/l	J	154	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	23.8	2.0	ug/l	---	12.8	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	101	4.0	ug/l	---	42.3	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	41.1	4.0	ug/l	---	27.4	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	61800	200	ug/l	---	23800	200	ug/l	---
	Calcium - Dissolved	7440-70-2	61900	200	ug/l	---	24600	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	2.4	4.0	ug/l	J	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	2.2	4.0	ug/l	J	ND	4.0	ug/l	---
	Copper	7440-50-8	ND	4.0	ug/l	---	1.9	4.0	ug/l	J
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	81100	120	ug/l	---	43300	120	ug/l	---
	Iron - Dissolved	7439-89-6	18900	120	ug/l	---	11500	120	ug/l	---
	Lead	7439-92-1	ND	1.2	ug/l	---	0.66	1.2	ug/l	J
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	8430	200	ug/l	---	4190	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	8140	200	ug/l	---	3670	200	ug/l	---
	Manganese	7439-96-5	12700	8.0	ug/l	---	6150	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	12000	8.0	ug/l	---	6120	8.0	ug/l	---
	Nickel	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	3040	200	ug/l	---	1330	200	ug/l	---
	Potassium - Dissolved	7440-09-7	3050	200	ug/l	---	1330	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	4000	200	ug/l	---	3250	200	ug/l	---
	Sodium - Dissolved	7440-23-5	3900	200	ug/l	---	3090	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A									
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry										
	OSW-9012B									
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A									
	Chloride	16887-00-6	5.57	2.40	mg/l	---	5.53	2.40	mg/l	---
	Sulfate	14808-79-8	ND	0.60	mg/l	---	ND	0.60	mg/l	---
	APHA-2320B									
	Alkalinity	E-14506	251	5.0	mg/l	---	111	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	251	5.0	mg/l	---	111	5.0	mg/l	---

APPENDIX 4

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

		Sample Name:	OB-30C-081716				SC-2-081716				OB-27-081716				OB-19-081716				OB-4-081716			
		Lab Sample ID:	4601188171				46011881710				46011881711				46011881712				46011881713			
		Sample Date:	8/17/2016				8/17/2016				8/17/2016				8/17/2016				8/17/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC																					
OSW-8260C																					
1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6									15	---	ug/l	NJ								
Benzene, (3-methyl-2-butenyl)- - TIC	4489-84-3									7.5	---	ug/l	NJ								
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2									6.4	---	ug/l	NJ								
Benzene, 2-ethenyl-1,4-dimethyl- - TIC	2039-89-6																				
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UB	ND	1.0	ug/l	UJ
Indane - TIC	496-11-7									9.1	---	ug/l	NJ								
Methylene Chloride	75-09-2					0.22	1.0	ug/l	UB												

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

		Sample Name:	TB-02-081716				OB-33-081716				OB-12-081716				OB-30B-081716				OB-15B-081716			
		Lab Sample ID:	46011881714				4601188172				4601188173				4601188174				4601188175			
		Sample Date:	8/17/2016				8/17/2016				8/17/2016				8/17/2016				8/17/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC																						
OSW-8260C																						
1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6																					
Benzene, (3-methyl-2-butenyl)- - TIC	4489-84-3																					
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2																					
Benzene, 2-ethenyl-1,4-dimethyl- - TIC	2039-89-6																					
Bromoform	75-25-2		ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Indane - TIC	496-11-7																					
Methylene Chloride	75-09-2																					

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118817-1

		Sample Name:	OB-2-081716				OB-32-081716				OB-11R-081716				OB-31-081716			
		Lab Sample ID:	4601188176				4601188177				4601188178				4601188179			
		Sample Date:	8/17/2016				8/17/2016				8/17/2016				8/17/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC																		
OSW-8260C																		
1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6																	
Benzene, (3-methyl-2-butenyl)- - TIC	4489-84-3																	
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2																	
Benzene, 2-ethenyl-1,4-dimethyl- - TIC	2039-89-6										6.5	---	ug/l	NJ				
Bromoform	75-25-2		ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Indane - TIC	496-11-7																	
Methylene Chloride	75-09-2																	

APPENDIX 5

September 01, 2016

Tim Roeper
Cornerstone EG
100 Crystal Run Road
Suite 101
Middletown, NY 10941

CADENA project ID: E203361
Project: Ford Ringwood Mines Project
Project number:
Client project scope reference: Sample COC only was used to define project analytical requirements.
Laboratory: TestAmerica - Edison
Laboratory submittal: 118817-1
Sample date: 2016-08-17
Report received by CADENA: 2016-08-31
Initial Data Verification completed by CADENA: 2016-09-01

The following minor QC exceptions or missing information were noted:

TBK - GCMS VOC TRIP blanks had detections above the RL for the following analytes: METHYLENE CHLORIDE. The following client sample results should be considered to be non-detect at the RL and qualified with UB flags: METHYLENE CHLORIDE - sample -010.

TIC - GCMS VOC Tentatively Identified Compounds (TIC's) detected results should be considered to be estimated and qualified with NJ flags.

GCMS VOC QC batch 386113, 386206 and GCMS SVOC QC batch 386667, 386897, 387329 CCV response outliers as noted in the laboratory submittal case narrative were not used to qualify client sample results as part of this level 2 data package verification review.

GCMS VOC BATCH 386206 QC results did not include MS/MSD recovery data.

GCMS SVOC batch 386082 LCS or LCSD recoveries but not both or RPD only were outliers so for 2-METHYLPHENOL so were not used to qualify client sample results based on these QC outliers alone.

GCMS SVOC sample -008, -009, -011 surrogate recovery outliers (1 out of 3 acid fraction biased high) did not result in qualification of client sample data.

METALS, PCB QC batch MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

FLUORIDE sample -002 MS or MSD recoveries but not both or RPD only were outliers so client sample results were not qualified based on these QC outliers alone.

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

13 Water sample(s) were analyzed for GCMS VOC, GCMS SVOC, GC Other, Metals, General Chemistry and MISC parameter(s). 1 Trip blank was analyzed for GCMS VOC parameters.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, LCS/LCD RPD, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Qualifiers added during verification have been added to the electronic data which is available for download from the CADENA CLMS. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory analytical report access the CADENA CLMS at http://clms.cadenaco.com/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
J-	The result is an estimated quantity, but the result may be biased low.
JB	NON-DETECT AT THE CONCENTRATION REPORTED AND ESTIMATED
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
JUB	NON-DETECT AT THE REPORTING LIMIT AND ESTIMATED
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTO

460-118817 Chain of Custody

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Name (for report and invoice): Tim Rooper	Samplers Name (Printed): Robert Lautenberg	Site/Project Identification: Ford - Ringwood
Company: Cornerstone Environmental Group	P. O. #: 140802-015	State (Location of site): NJ: X NY: Other:
		Regulatory Program: DKQP:
Address: 100 Crystal Run Rd., Suite 101	Analysis Turnaround Time: Standard X	LAB USE ONLY Project No:
City: Middletown State: NY 10941	Rush Charges Authorized For: 2 Week / 1 Week / Other	Job No: 118817
Phone: 845-695-0200 Fax:		Sample Numbers

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOCs + 15 TICs 8260 B	TCL SVOCs + 15 TICs 8270 C	TAL Metals - Total & Filtered 6010B/7470A	PCBs	Alkalinity, Total as CaCO3, 2320 B	Chloride 300/9056	Sulfate 300/9056	Cyanide				
OB-30C-081716	8/17/16	10:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-1
OB-33-081716	8/17/16	11:05	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-2
OB-12-081716	8/17/16	11:10	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-3
BB-30B-081716	8/17/16	11:45	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-4
OB-15B-081716	8/17/16	12:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-5
OB-2-081716	8/17/16	12:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-6
OB-32-081716	8/17/16	13:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-7
OB-11R-081716	8/17/16	14:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-8
OB-31-081716	8/17/16	14:45	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-9
SC-2-081716	8/17/16	15:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-10

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH — Soil: / Water:

6 = Other _____, 7 = Other _____

Special Instructions _____ Water Metals Filtered (Yes/No)? _____

	Company	Date / Time	Received by	Company
Relinquished by	Cornerstone	8/18/16 830	Received by 1)	TA
Relinquished by 2)	TA	8/18/16 1120	Received by 2) Alex Acierno	TA
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

IR7- 14005 01-13-07-1.8-09

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 2 of 2

Name (for report and invoice) Tim Roeper	Samplers Name (Printed) Robert Lastenberg	Site/Project Identification Ford - Ringwood	
Company Cornerstone Environmental Group	P. O. # 140802-015	State (Location of site): NJ: ☒ NY: ☐ Other:	
		Regulatory Program:	DKQP: ☐
Address 100 Crystal Run Rd, Suite 101	Analysis Turnaround Time: Standard ☑		
City Middletown State NY 10941	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐		
Phone 845 695 0200 Fax			

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + ISTDs 8260B	TCL SVOC + ISTDs 8270C	TAL Metals - Total + Filtered 6010B/7000	PCBs 8082	Alkalinity, Total as CaCO3 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	LAB USE ONLY Project No: Job No: 118817 Sample Numbers
OB-27-081716	8/17/16	16:05	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-11
OB-19-081716	8/17/16	17:20	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-12
OB-4-081716	8/17/16	17:35	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-13
TB-02-081716	8/17/16	—	BW	3	✓								-14

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____ Soil: Water:

Special Instructions Water Metals Filtered (Yes/No)? _____

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/18/16 830	1)	TA
2)	TA	8/18/16 1120	2)	
3)			3)	
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

IR7 - No C5

8/31/2016

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
SOW available?				**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**
Scope validation criteria referenced				**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**
Lab certifications required				**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**
Lab single blind PE samples completed				**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**
SAMPLING ISSUES				NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS															
holding times				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
preservation				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
temperature of cooler - degrees C				**0.1 to 1.8**	**0.1 to 1.8**	**0.1 to 1.8**	**0.1 to 1.8**	**0.1 to 1.8**	**0.1 to 1.8**	**0.1 to 1.8**	**0.1 to 1.8**	**0.1 to 1.8**	**0.1 to 1.8**	**0.1 to 1.8**	**0.1 to 1.8**
COC discrepancies				**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**
sample integrity (containers, amounts)				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
ANALYTICAL/PREP GENERAL				**8260C**	**8260C SIM**	**8270D**	**SVOC-SIM**	**PCB**	**METALS-D**	**METALS -T**	**MERCURY-D**	**MERCURY-T**	**CYANIDE**	**CL/SO4**	**ALK**
prep batch		LAB		**NA**	**NA**	**386082**	**386082**	**386385**	**386957 386959**	**387090**	**386975 386977**	**386298**	**387409 387699**	**NA**	**NA**
prep date		LAB		**NA**	**NA**	**22-Aug**	**22-Aug**	**23-Aug**	**26-Aug**	**8/26/2016**	**26-Aug**	**23-Aug**	**8/29/2016 8/30**	**NA**	**NA**
analytical batch		LAB		**386113 386206**	**386244, 386381**	**386667 386897 387329**	**387205 387262 387339**	**386460 386462 386241**	**387044 387282**	**387280**	**387030 386973**	**386295 386345**	**387474 387726**	**385736 386293**	**386996 387653**
analytical date		LAB		**8/22/2016 8/23**	**23-Aug**	**8/25 8/26 8/29**	**8/27/2016 8/28 8/29**	**8/24/2016 8/23**	**8/25/2016 8/26 8/27**	**8/25/2016 8/26 8/27**	**8/23/2016 8/24 8/26**	**8/23/2016 8/24**	**29-Aug**	**8/19/2016 8/20 8/21 8/23**	**8/26/2016 8/30**
instrument ID		LAB		**CVOAMS8**	**CVOAMS11**	**CBNAMS6**	**CBNAMS9**	**CPESTGC11 CPESTGC9**	**ICPMS2 ICPMS1**	**ICPMS3**	**LEEMAN6**	**LEEMAN6**	**LACHAT3**	**IC A**	**NA**
Instrument Tune		METHOD	tune	**OK**	**OK**	**OK**	**OK**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**
Instrument Performance Checks		METHOD	tailing, degradation	**NA**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
ICAL (Initial Calibration Curve)	CURVE ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	**57218**	**57303**	**57491**	**57255**	**56313 57495**	**OK**	**OK**	**OK**	**OK**	**OK**	**57277**	**NA**
ICAL (Initial Calibration Curve)	CURVE DATE	METHOD		**10-Aug**	**19-Aug**	**8/9/2016 8/23**	**15-Aug**	**6/17/2016 8/23**	**OK**	**OK**	**OK**	**OK**	**OK**	**17-Aug**	**NA**
ICV (Initial Calibration Verification)		METHOD	max 30%	**OK**	**OK**	**NO RAW DATA**	**NO RAW DATA**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**385365**	**NA**

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
CCV (Continuing Calibration Verification)		METHOD	max 20%/50%	**386113/386206-low-bromoform, high-112TC122TFE**	**OK**	**386897-HIGH - PCP, phenol, 2-fp. 387329- HIGH - phenol, 2fp. 386667-HIGH - phenol,PCP.**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Target Compound Lists		SCOPE/COC		**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Reporting Limits (RL/PQL/LOQ) compliant		SCOPE	1.0 ug/l	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Blanks-method/calibration	method blank	NFG		**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
LCS (Laboratory Control Spikes)		lab control limits	by method	**OK**	**OK**	**386082 - LOW - 2MP - LCSDUP OK - NO QUAL**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
MS/MSD (Matrix Spikes)		lab control limits	by method	**SAMP -001 OK**	**NONE**		**NONE**	**386462-NCS**	**ncs**	**OK**	**OK**	**OK**	**OK**	**OK**	**NA**
Sample duplicates		lab control limits	NA	**NA**	**NA**	**NA**	**NA**	**NA**	**OK**	**SAMP-01 OK DUP - NCS**	**OK**	**OK**	**NA**	**OK**	**OK**
Internal standard reponses/RRT		METHOD	50-200%	**OK**	**OK**	**OK**	**OK**	**1 INTERNAL STANDARD - ALL OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Surrogate recoveries		lab control limits	SVOC BN surrogates	**OK**	**OK**	**SAMP -011, -008, -009-1/3 ACID HIGH**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Qualitative criteria met		METHOD		**OK**	**OK**	**OK**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
TICS (Tentatively Identified Compounds)		METHOD		**YES**	**NO**	**NO**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
TIC blanks		NFG		**NA**	**NA**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Trip blanks		NFG		**MECL2-2.9**	**ND**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Field blanks		NFG		**OK**	**OK**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Field duplicates		SCOPE		**NA**	**NA**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Post Digestion Spikes (PDS)		METHOD		**NA**	**NA**	**NA**	**NA**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**
Serial Dilution (SD)		METHOD		**NA**	**NA**	**NA**	**NA**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**
CRQL checks performed?		SCOPE		**NA**	**NA**	**NA**	**NA**	**NA**	**OK**	**OK**	**OK**	**OK**	**NA**	**NA**	**NA**
E flagging required		LAB		**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
GENERAL QC TRACKING															
Control Limits		SCOPE	see above	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**
Certificates of Analysis for primary standards		VENDOR	required for NIST trace	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**
Working/Intermediate standard prep calculations		LAB	prep log	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Prep technique		not specified	VARIES	**5030**	**5030**	**3510C**	**3510C**	**3510C**	**3010A**	**3010A**	**NA**	**NA**	**NA**	**NA**	**NA**
Prep sample volumes/mass		not specified	VARIES	**5**	**5**	**250**	**250**	**250**	**50 10**	**50 10**	**50 30**	**30**	**5**	**NA**	**50**
OVERALL							**NO**								
Data Reportable?				**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**
Comments (other)						**LVE/HVI - 250ML/2ML-5UL**		**LVE - 250 ML**							

E-Mail Date: 2016-09-30
E-Mail To: tim.roeper@cornerstoneeg.com
cc:

U.S. Mail: Tim Roeper
Cornerstone Environmental Group
100 Crystal Run Road, Suite 101
Middletown, NY 10941

ANALYTICAL DATA VALIDATION REPORT
Ringwood Mines/Landfill
Ford Motor Company
PROJECT 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED August 18, 2016
DATA PACKAGE RECEIVED September 9, 2016
SUBMITTAL #: 460-118898-1

PREPARED BY:
CADENA, INC.
1099 Highland Drive
Ann Arbor, MI 48108
Telephone: 517-819-0356
Fax: 734-975-6709
Contact: Jim Tomalia (jtomalia@cadenaco.com)
Date: 2016-09-30
www.CADENACO.com

TABLE OF CONTENTS

LISTS OF APPNEDICES
(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by TestAmerica-Edison Laboratory the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	GCMS VOC	GCMS VOC SIM	OSW-SVOC	GCMS SVOC SIM	OSW-PCB	Dissolved Metals by ICP MS	Total Metals by ICP MS	Mercury (Manual Cold Vapor) (D)	Mercury (Manual Cold Vapor) (T)	TOTAL CYANIDE	SULFATE CHLORIDE by IC	Alkalinity
4601188981	TB-03-081816	8/18/2016	X	X										
46011889810	OB-20B-081816	8/18/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011889811	RW-6A-081816	8/18/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011889812	RW-5A-081816	8/18/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011889813	OB-7-081816	8/18/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011889814	OB-25-081816	8/18/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011889815	RW-5-081816	8/18/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601188982	FB-02-081816	8/18/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601188983	OB-20A-081816	8/18/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601188984	OB-6-081816	8/18/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601188985	OB-21-081816	8/18/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601188986	Dup-02-081816	8/18/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601188987	RW-6-081816	8/18/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601188988	RW-7-081816	8/18/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601188989	OB-5-081816	8/18/2016	X	X	X	X	X	X	X	X	X	X	X	X

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	*Reference Method*	*Analyte Listing*
GCMS VOC Organics	OSW-8260C	Target Compound List
GCMS VOC Organics-SIM	OSW-8260C-SIM	1,2-Dibromo-3-chloropropane and EDB
Semi-Volatile Organics	OSW-8270D	Target Compound List
Semi-Volatile Organics	OSW-8270D/SIM	PAH, PCP, HCB, B2CEE
GC ECD Semi-Volatiles	OSW-8082A	PCB's
Metals by ICP/MS	OSW-6020A	Target Analyte List(total,dissolved)
Mercury by Cold Vapor	OSW-7470A	Mercury(total, dissolved)
Total Cyanide	OSW-9012B	Total Cyanide
Ion Chromatography	OSW-9056A	Chloride, Sulfate
Alkalinity	APHA-2320B	Alkalinity, Bicarbonate Alkalinity

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all

subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a

	tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

Additional data qualifications based on review of the level 4 data package using laboratory criteria provided if required are noted below. Qualifications that would be required based on comparison to NFG criteria are noted where applicable. These qualifications would be added to the database and associated summary tables in the appendices if applicable.

GCMS VOC

Continuing Calibration Verification (CCV) standard responses were outside of method criteria biased low for 1,1,2,2-TETRACHLOROETHANE in analytical batch 386495. All client sample 1,1,2,2-TETRACHLOROETHANE results should be considered to be estimated and qualified with UJ flags (all results were non-detect).

The following observations **DID NOT** result in qualification but were noted during the validation review:

ALL TEST DATA

Certificates of analysis for standards and all working/primary standard concentrations that are required to verify calibration standard concentrations and spike levels were not available in the laboratory data package for review.

GCMS VOC

GCMS VOC CCV high bias outliers in QC batch 386495 for TRICHLOROFLUOROMETHANE did not require qualification of client sample results since all associated sample results were non-detect.

GC/MS SVOC

Initial Calibration Verification (ICV) raw data was not available for reconstruction/re-calculation of ICV results.

GCMS SVOC CCV high bias outliers in QC batch 387265 for 4-NITROPHENOL, PENTACHLOROPHENOL and surrogate 2,4,6-TRIBROMOPHENOL and CCV high bias outliers in QC batch 387329 for N-NITROSODIMETHYLAMINE, PYRIDINE, PHENOL and surrogate 2-FLUOROPHENOL did not require qualification of client sample results since all associated target analyte results were non-detect.

GC/MS SVOC-SIM

General note that calibration curves using LINEAR regression algorithms typically show reduced accuracy near the reporting limit. In the case of PENTACHLOROPHENOL for this data package the linear regression curve showed poor linearity at levels below the 0.4ug/l concentration sample analyte level. Several sample results were quantitated below that level but have not been qualified based on this calibration curve observation since they are already qualified as estimated due to being detected at levels below the RL.

PCB

No non-conformances were observed.

METALS

No non-conformances were observed.

VERIFICATION SUMMARY

The following qualifications and associated data flags were applied based on the initial level 2 review of this data package.

LCS - GCMS SVOC QC batch 386330 LCS recoveries were outliers biased low for the following analytes: 2-METHYLPHENOL. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: 2-METHYLPHENOL - all samples.

MSD - GCMS SVOC sample -004 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased low for the following analytes: 2-METHYLPHENOL. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

TIC - GCMS VOC Tentatively Identified Compounds (TIC's) detected results should be considered to be estimated and qualified with NJ flags.

MSD - METALS sample -004 MS recovery (no MSD performed) were outliers with the recovery biased low for the following analytes: SILVER. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

MSD - SULFATE sample -014 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased low. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

GCMS SVOC sample -002, -003, -004, -005, -007, -009, -010, -011, -012, -013, -014, -015, -004MS, -004MSD, LCS surrogate recovery outliers (1 out of 3 acid fraction surrogates only were outliers biased high) did not result in qualification of client sample data.

PCB sample -004 MS or MSD recoveries but not both or RPD only were outliers for AROCLOR 1260 so client sample results were not qualified based on these QC outliers alone.

PCB QC batch 386623 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

METALS QC batch 387091 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

SULFATE QC batch 387602 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

CHLORIDE QC batch 387602 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

METALS sample -004 MS and or MSD recovery outliers were not used to qualify results for MANGANESE, SODIUM, MAGNESIUM, CALCIUM due to high levels of these target analytes in the original sample relative to the spike concentration (4X rule).

SULFATE sample -009 MS or MSD recoveries but not both or RPD only were outliers so client sample results were not qualified based on these QC outliers alone.

CHLORIDE sample -009 MS and or MSD recoveries were diluted to below reliably quantifiable levels so were not used to qualify client sample results.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

2.0 VOLATILE ORGANIC COMPOUNDS (VOCs) – METHOD SW846 8260C and SIM ANALYSIS

See Attachments for submittal-specific review summary of QC requirements noted below.
The target analyte list was defined by the client-project as TCL List OLM4.2 for 8260C full scan and as noted in section 1 above for SIM analysis.

2.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) VOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS VOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS VOCs

Initial calibration data for VOCs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS VOCs

Initial calibration data for VOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

2.2 CONTINUING CALIBRATION – GC/MS VOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless otherwise noted in the executive summary noted above and qualified in the data tables. Target analytes associated with CCV compounds outside of method criteria were qualified as estimated with J flags if sample results were non-detect and estimated with UJ flags if CCV bias was low and sample results was non-detect and J flags if sample results were detections. Non-detect results were not qualified if CCV bias was high and sample results were non-detect.

2.3 INTERNAL STANDARDS – GC/MS VOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS VOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS VOCs

A laboratory control sample (LCS) was prepared and analyzed for VOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless otherwise noted in the executive summary and as qualified the QAR and ARS data tables found in the appendices.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS VOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS VOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS VOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS VOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS VOCs

Tentatively Identified Compounds (TIC) searches were associated with each sample analysis and should all be considered to be estimated and qualified with NJ flags when detected.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS VOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D and SIM analysis – GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

3.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

3.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

3.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

3.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

3.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

3.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

3.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) was prepared and analyzed for the target analyte SVOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

3.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

3.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

3.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

3.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

3.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

3.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal..

4.0 POLYCHLORINATED BIPHENYLS (PCBs) – METHOD SW846 8082A

The target analyte list was defined by the client as the standard 7 aroclors.

4.1 CALIBRATION – GAS CHROMATOGRAPH-ECD

4.1.1 TUNING AND MASS CALIBRATION – PCB

Not applicable for this analysis.

4.1.2 INITIAL CALIBRATION – PCB

Initial calibration data for PCBs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

4.1.3 INITIAL CALIBRATION VERIFICATION – PCB

Initial calibration verification (ICV) standards for PCB analyses were reviewed and met criteria specified by the laboratory with no exceptions.

4.2 CONTINUING CALIBRATION – PCBs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary.

4.3 INTERNAL STANDARDS – PCB

Internal standard (IS) data were reviewed and met criteria unless noted otherwise in verification/validation summary. (NOTE: Lab quantitation approach DID use internal standard quantitation for this submittal).

4.4 SURROGATE SPIKE RECOVERIES – PCB

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

4.5 LABORATORY CONTROL SAMPLE ANALYSES - PCB

A laboratory control sample (LCS) was prepared and analyzed for PCBs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary..

4.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - PCB

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

CADENA does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

4.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - PCB

There were no field duplicate comparisons performed as part of this validation request.

4.8 EXTRACT CLEANUP - PCB

Extract cleanups were performed in accordance with laboratory SOP's and as noted in level 4 data package prep logs.

4.9 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - PCB

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

4.10 TENTATIVELY IDENTIFIED COMPOUNDS - PCB

Not requested for this analytical procedure.

4.11 BLANKS – METHOD/FIELD/CALIBRATION - PCB

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

5.0 HPLC/IC – METHOD SW846 9056A – CHLORIDE AND SULFATE

5.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

5.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

5.3 CONTINUTING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

5.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

5.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD’s were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

5.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

5.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

5.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

6.0 METALS – ICPMS by Method 6020A TOTAL AND DISSOLVED and Mercury by Method 7470A

The following samples provided in this SDG underwent a Level IV review for either/and metals or mercury analyses:

- Method 6020A: ALL
- Method 7470A: ALL

6.1 ICP/MS TUNING AND MASS CALIBRATION

Instrument tuning data were reviewed. Tuning elements were analyzed. All tuning criteria were met for the analyses, indicating proper optimization of the instrumentation.

6.2 INITIAL CALIBRATION

Initial calibration data for metals and mercury were reviewed and met the criteria for linearity of response without exception.

6.3 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards for metals and mercury analyses were reviewed and met criteria unless otherwise noted in verification/validation summary section of this document.

An initial calibration blank (ICB) was analyzed for metals and mercury analyses. Metals and mercury were reported as non-detect in each ICB analysis unless noted otherwise in verification/validation summary.

6.4 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for metals and mercury analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

6.5 INTERFERENCE CHECK STANDARD

The interference check standard results were reviewed and found to meet criteria.

6.6 INTERNAL STANDARDS

Internal standard (IS) data were reviewed and found to meet criteria unless noted otherwise in verification/validation summary.

6.7 LABORATORY CONTROL SAMPLE ANALYSIS

A laboratory control sample (LCS) was prepared and analyzed for metals and mercury. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

6.8 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE (MS/MSD) ANALYSES

The MS/MSD recoveries and RPD's were either not performed using a client sample or were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

6.9 CONTRACT REQUIRED DETECTION LIMIT STANDARD ANALYSES

Each contract required detection limit (CRDL) standard was analyzed at the proper frequency and were within laboratory control limits unless noted otherwise in verification/validation summary.

6.10 ICP SERIAL DILUTION

Serial dilutions were analyzed at the proper frequency and were either not performed using the client sample or were within laboratory control limits unless noted otherwise in verification/validation summary.

6.11 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

6.12 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

6.13 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

7.0 GENERAL CHEMISTRY- TOTAL AND AMENABLE CYANIDE AND ALKALINITY – METHODS 9012B and 2320B

7.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

7.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

7.3 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

7.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

7.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD’s were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

7.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

7.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

7.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

8.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

8.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

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All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	***Reference Method***	***Matrix***	***Preservation & Storage***	***Holding Times***
Volatile Organics by GCMS	OSW-8260C/SIM	Water	Acidify ph<2 Refrigeration 0-6oC	14 days
Semivolatile Organics by GCMS	OSW-8270D/SIM	Water	Refrigeration 0-6oC	7 days Extraction 40 days Analysis
Polychlorinated Biphenyls by GC/ECD	OSW-8082A	Water	Refrigeration 0-6oC	365 days - Extraction - Analysis
Metals by ICP/ICPMS Spectroscopy	OSW-6010B OSW-6020A	Water	Acidify pH<2 Refrigeration 0-6oC	180 days
Mercury in Aqueous Waste	OSW-7470A	Water	Acidify pH<2 Refrigeration 0-6oC	28 days
Alkalinity	EPA 2320B	Water	Refrigeration 0-6oC	14 days
Chloride and Sulfate	OSW-9056A	Water	Refrigeration 0-6oC	28 days
Total and Amenable Cyanide	OSW-9012B	Water	Test for presence of Sulfide – if unknown collect two samples and treat one with Lead Carbonate. Then adjust sample to pH of greater than or equal to 12with NaOH. Refrigeration at 0-4C –(also may require treatment for aldehydes and chlorine/hypochlorite/sulfite)	14 days if preserved. 24 hours or sooner if unpreserved

8.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

9.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

10.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: TestAmerica-Edison
Laboratory Submittal: 118898-1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS VOC Volatiles	GCMS VOC SIM	OSW-8270D	GCMS SVOC SIM	OSW-8082A	Metals by ICP Mass Spectroscopy(D)	Metals by ICP Mass Spectroscopy	Mercury (Manual Cold Vapor)(D)	Mercury (Manual Cold Vapor)	TOTAL AND AMENABLE CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Anions by IC	Alkalinity Prep
4601188981	TB-03-081816	8/18/2016	12:00:00	X	X										
46011889810	OB-20B-081816	8/18/2016	12:50:00	X	X	X	X	X	X	X	X	X	X	X	X
46011889811	RW-6A-081816	8/18/2016	2:30:00	X	X	X	X	X	X	X	X	X	X	X	X
46011889812	RW-5A-081816	8/18/2016	2:45:00	X	X	X	X	X	X	X	X	X	X	X	X
46011889813	OB-7-081816	8/18/2016	3:10:00	X	X	X	X	X	X	X	X	X	X	X	X
46011889814	OB-25-081816	8/18/2016	4:30:00	X	X	X	X	X	X	X	X	X	X	X	X
46011889815	RW-5-081816	8/18/2016	4:50:00	X	X	X	X	X	X	X	X	X	X	X	X
4601188982	FB-02-081816	8/18/2016	8:30:00	X	X	X	X	X	X	X	X	X		X	X
4601188983	OB-20A-081816	8/18/2016	9:55:00	X	X	X	X	X	X	X	X	X	X	X	X
4601188984	OB-6-081816	8/18/2016	10:20:00	X	X	X	X	X	X	X	X	X	X	X	X
4601188985	OB-21-081816	8/18/2016	10:30:00	X	X	X	X	X	X	X	X	X	X	X	X
4601188986	Dup-02-081816	8/18/2016	12:00:00	X	X	X	X	X	X	X	X	X	X	X	X
4601188987	RW-6-081816	8/18/2016	11:20:00	X	X	X	X	X	X	X	X	X	X	X	X
4601188988	RW-7-081816	8/18/2016	12:20:00	X	X	X	X	X	X	X	X	X	X	X	X
4601188989	OB-5-081816	8/18/2016	12:40:00	X	X	X	X	X	X	X	X	X	X	X	X

APPENDIX 2

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

Standard Report Cover page
Table of Contents
SDG Case Narrative
Sample Summary
Executive Summary detection highlights
Method Summary
Method/Analyst Summary
Analytical Results
Surrogate Summary
Quality Control Results
Data Qualifiers
QC Summary Association
Lab Chronicle
GCMS Volatiles Data - Method 8260C and SIM
- QC Summary Data
  - Surrogate recoveries (form II)
  - Check Sample recoveries (form III)
  - Matrix spike/Matrix spike duplicate report (form III)
  - Method blank report (form IV)
  - Tuning and mass calibrations (form V)
  - Internal Standard and RT area summary (form VIII)
- Sample Data
  - GCMS VOA Organics Analysis Data Sheet (Form I)
  - Raw integration data from instrument
  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report (Form VII)
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not included with SIM package)
  - FORM I - QC data
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
  - MS and MSD integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Run logs

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

GCMS Semivolatiles Data - Method 8270D and SIM

- QC Summary Data
  - Surrogate recoveries (form II)
  - Check Sample recoveries (form III)
  - Method blank report (form IV)
  - Tuning and mass calibrations (form V) (not applicable for SIM)
  - Internal Standard and RT area summary (form VIII)
- Sample Data
  - GCMS VOA Organics Analysis Data Sheet (Form I)
  - Raw integration data from instrument
  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not applicable for SIM)
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Instrument run logs
  - Extraction bench sheets

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

- Polychlorinated Biphenyls Data (PCB)
  - QC Summary data
    - Surrogate recoveries (form II)
    - Check Sample Recovery data (form III)
    - Method Blank data (form IV)
    - Analytical sequence with RT check (Form VIII)
    - Identification Summary (Form X)
  - Sample Data
    - Organics Analysis Data Sheet (Form I)
    - Raw integration data from instrument
    - Chromatogram
  - Standards Data (both columns)
    - Initial Calibration Data External Standard RT Summary (Form VI)
    - Initial Calibration Data Summary with average RF
    - Raw integration data from instrument with manual integrations where applicable
    - ICAL chromatograms
    - Continuing Calibration Data (Form VII) with RT Summaries
    - ICV raw integration and chromatograms
    - CCV raw integration data from instrument
    - CCV chromatogram
  - Raw QC Data
    - LCS/LCSD sample data report and integration and chromatograms
    - Method blank integration and chromatograms
  - Miscellaneous Data
    - Sequence table (run log)
    - PCB Batch Worksheet
- HPLC/IC - 9056A ORGFM_28D - Anions, Ion Chromatography - Sulfate and Chloride
  - Raw Data and Data Summaries for:
    - LCS/LCSD (form III)
    - MS/MSD (form III)
    - METHOD BLANKS (Form IV)
    - SAMPLE DATA (Form I)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - ICAL (Form VI)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - ICAL (Form VII)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - QC DATA (Form I)
      - Raw instrument data and chromatography
    - Analysis Run Logs

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

METALS DATA (ICPMS and mercury)
- Forms Data
  - Cover Page
  - Inorganic Analysis Data Sheet - Metals Dissolved/Total Recoverable (1A-IN)
  - CCV standard report - mercury and ICPMS (2A-IN)
  - CRQL report - mercury and ICPMS (2B-IN)
  - ICB report - mercury and ICPMS (3-IN)
  - Method blank report (3-IN)
  - Interference check standard A - ICPMS (4A-IN)
  - Interference check standard AB - ICPMS (4A-IN)
  - MS/MSD Sample recovery (5A-IN)
  - PDS Summary (5B-IN)
  - LCS Recovery form (7A-IN)
  - LCS Duplicate Recover (7D-IN)
  - ICP-MS Serial Dilutions (8-IN)
  - Detection Limits Form (9-IN)
  - Linear dynamic ranges - ICPMS (11-IN)
  - Prep log - mercury and ICPMS (12-IN)
  - Run log - ICPMS and Mercury (13-IN)
  - ICP-MS TUNE (14-IN)
  - ICPMS Internal Standards Relative Intensity Summary (15-IN)
- Instrument Printouts
  - ICP-MS Raw instrument data
  - Mercury raw instrument data, run logs and calibrations
- Miscellaneous Data
  - Metals Batch Worksheet

GENERAL CHEMISTRY - Total and Amenable Cyanide and Alkalinity
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- Raw Data and Data Summaries for:
  - Sample Data (Form 1B-IN)
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  - METHOD BLANKS (Form 3-IN)
  - MATRIX SPIKES (Form 5-IN)
  - Sample DUPLICATES (Form 6-IN)
  - LCS/LCSD (Form 7-IN)
  - Detection Limits Form (9-IN)
  - Prep log (12-IN)
  - Analysis Run Logs (13-IN)
  - Raw Data - instrument sample sequence and calibration curve
  - Alkalinity Reagents
  - Alkalinity pH meter calibration
  - Alkalinity sequence log and raw data
  - General Chemistry Batch Worksheets

Shipping and Receiving Documents
- COC forms
- Cooler Receipt Form, checklist and narrative

APPENDIX 3

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

		Sample Name:	TB-03-081816				OB-20B-081816				RW-6A-081816				RW-5A-081816				OB-7-081816			
		Lab Sample ID:	46011889810				46011889810				46011889811				46011889812				46011889813			
		Sample Date:	8/18/2016				8/18/2016				8/18/2016				8/18/2016				8/18/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC																					
OSW-8260C																					
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6									6.5	---	ug/l	NJ								
3-Phenylbut-1-ene - TIC	934-10-1									12	---	ug/l	NJ								
Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7									10	---	ug/l	NJ								
Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2									14	---	ug/l	NJ								
Benzene, 1,2,4-trimethyl- - TIC	95-63-6									19	---	ug/l	NJ								
Benzene, 4-ethyl-1,2-dimethyl- - TIC	934-80-5									16	---	ug/l	NJ								
Benzene, propyl- - TIC	103-65-1									6.3	---	ug/l	NJ								
Indane - TIC	496-11-7									19	---	ug/l	NJ								
Naphthalene - TIC	91-20-3									9.1	---	ug/l	NJ								
GC/MS SVOC																					
OSW-8270D																					
2-Methylphenol	95-48-7					ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	11	ug/l	UJ
Metals																					
OSW-6020A																					
Silver - Dissolved	7440-22-4																				
General Chemistry																					
OSW-9056A																					
Sulfate	14808-79-8																				

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

	Sample Name:		OB-25-081816				RW-5-081816				FB-02-081816				OB-20A-081816				OB-6-081816			
	Lab Sample ID:		46011889814				46011889815				4601188982				4601188983				4601188984			
	Sample Date:		8/18/2016				8/18/2016				8/18/2016				8/18/2016				8/18/2016			
Analyte		**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC																						
OSW-8260C																						
	1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
	1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6																				
	3-Phenylbut-1-ene - TIC	934-10-1																				
	Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7																				
	Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2																				
	Benzene, 1,2,4-trimethyl- - TIC	95-63-6																				
	Benzene, 4-ethyl-1,2-dimethyl- - TIC	934-80-5																				
	Benzene, propyl- - TIC	103-65-1																				
	Indane - TIC	496-11-7																				
	Naphthalene - TIC	91-20-3																				
GC/MS SVOC																						
OSW-8270D																						
	2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
Metals																						
OSW-6020A																						
	Silver - Dissolved	7440-22-4																	ND	2.0	ug/l	UJ
General Chemistry																						
OSW-9056A																						
	Sulfate	14808-79-8	18.9	0.60	mg/l	J																

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

	Sample Name:	OB-21-081816				Dup-02-081816				RW-6-081816				RW-7-081816				OB-5-081816			
	Lab Sample ID:	4601188985				4601188986				4601188987				4601188988				4601188989			
	Sample Date:	8/18/2016				8/18/2016				8/18/2016				8/18/2016				8/18/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC																					
OSW-8260C																					
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6																				
3-Phenylbut-1-ene - TIC	934-10-1																				
Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7																				
Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2																				
Benzene, 1,2,4-trimethyl- - TIC	95-63-6																				
Benzene, 4-ethyl-1,2-dimethyl- - TIC	934-80-5																				
Benzene, propyl- - TIC	103-65-1																				
Indane - TIC	496-11-7																				
Naphthalene - TIC	91-20-3																				
GC/MS SVOC																					
OSW-8270D																					
2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	11	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
Metals																					
OSW-6020A																					
Silver - Dissolved	7440-22-4																				
General Chemistry																					
OSW-9056A																					
Sulfate	14808-79-8																				

APPENDIX 4

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

		Sample Name:	TB-03-081816				OB-20B-081816				RW-6A-081816			
		Lab Sample ID:	4601188981				46011889810				46011889811			
		Sample Date:	8/18/2016				8/18/2016				8/18/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.30	1.0	ug/l	J
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6									6.5	---	ug/l	NJ
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
3-Phenylbut-1-ene - TIC	934-10-1									12	---	ug/l	NJ
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	7.8	5.0	ug/l	---	9.1	5.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	0.15	1.0	ug/l	J	8.0	1.0	ug/l	---
Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7									10	---	ug/l	NJ
Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2									14	---	ug/l	NJ
Benzene, 1,2,4-trimethyl- - TIC	95-63-6									19	---	ug/l	NJ
Benzene, 4-ethyl-1,2-dimethyl- - TIC	934-80-5									16	---	ug/l	NJ
Benzene, propyl- - TIC	103-65-1									6.3	---	ug/l	NJ
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	3.9	1.0	ug/l	---	5.7	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	1.0	1.0	ug/l	---	3.6	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Indane - TIC	496-11-7									19	---	ug/l	NJ
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	5.0	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	0.66	1.0	ug/l	J	1.0	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Naphthalene - TIC	91-20-3									9.1	---	ug/l	NJ
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	9.7	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

		Sample Name:	TB-03-081816				OB-20B-081816				RW-6A-081816			
		Lab Sample ID:	4601188981				46011889810				46011889811			
		Sample Date:	8/18/2016				8/18/2016				8/18/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4					ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3					ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1					ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2					ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4					ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2					ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2					ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9					ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5					ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2					ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2					ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7					ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8					ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6					ND	10	ug/l	---	1.3	10	ug/l	J
	2-Methylphenol	95-48-7					ND	10	ug/l	UJ	ND	10	ug/l	UJ
	2-Nitroaniline	88-74-4					ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5					ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1					ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2					ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1					ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3					ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7					ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8					ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3					ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5					ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6					ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7					ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9					ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8					ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2					ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7					ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9					ND	2.1	ug/l	---	1.8	2.1	ug/l	J
	Benzaldehyde	100-52-7					ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2					ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1					ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7					ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Butyl benzyl phthalate	85-68-7					ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2					ND	10	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8					ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9					ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2					ND	10	ug/l	---	ND	10	ug/l	---
	Di-n-octyl phthalate	117-84-0					ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9					ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2					ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3					ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0					ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7					ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4					ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1					ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6					ND	10	ug/l	---	1.4	10	ug/l	J
	Naphthalene	91-20-3					2.5	10	ug/l	J	8.2	10	ug/l	J
	Nitrobenzene	98-95-3					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8					ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2					ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0					ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3					ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[a]pyrene	50-32-8					ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[b]fluoranthene	205-99-2					ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4					ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3					ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Hexachlorobenzene	118-74-1					ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5					ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Pentachlorophenol	87-86-5					0.11	0.21	ug/l	J	0.12	0.21	ug/l	J

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

			Sample Name:	TB-03-081816				OB-20B-081816				RW-6A-081816			
			Lab Sample ID:	4601188981				46011889810				46011889811			
			Sample Date:	8/18/2016				8/18/2016				8/18/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3					ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5					35.8	40.0	ug/l	J	23.5	40.0	ug/l	J
	Aluminum - Dissolved	7429-90-5					ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2					1.6	2.0	ug/l	J	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3					81.3	4.0	ug/l	---	47.2	4.0	ug/l	---
	Barium - Dissolved	7440-39-3					41.9	4.0	ug/l	---	29.4	4.0	ug/l	---
	Beryllium	7440-41-7					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2					57200	200	ug/l	---	86200	200	ug/l	---
	Calcium - Dissolved	7440-70-2					62600	200	ug/l	---	91000	200	ug/l	---
	Chromium	7440-47-3					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4					30.7	4.0	ug/l	---	20.3	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4					30.6	4.0	ug/l	---	19.3	4.0	ug/l	---
	Copper	7440-50-8					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6					44800	120	ug/l	---	23600	120	ug/l	---
	Iron - Dissolved	7439-89-6					22700	120	ug/l	---	7170	120	ug/l	---
	Lead	7439-92-1					ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1					ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4					11900	200	ug/l	---	22000	200	ug/l	---
	Magnesium - Dissolved	7439-95-4					12300	200	ug/l	---	21500	200	ug/l	---
	Manganese	7439-96-5					9820	8.0	ug/l	---	14800	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5					10300	8.0	ug/l	---	14800	8.0	ug/l	---
	Nickel	7440-02-0					5.8	4.0	ug/l	---	3.2	4.0	ug/l	J
	Nickel - Dissolved	7440-02-0					5.1	4.0	ug/l	---	3.2	4.0	ug/l	J
	Potassium	7440-09-7					2780	200	ug/l	---	2780	200	ug/l	---
	Potassium - Dissolved	7440-09-7					3020	200	ug/l	---	3010	200	ug/l	---
	Selenium	7782-49-2					ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2					ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5					4920	200	ug/l	---	8240	200	ug/l	---
	Sodium - Dissolved	7440-23-5					5150	200	ug/l	---	8190	200	ug/l	---
	Thallium	7440-28-0					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2					ND	4.0	ug/l	---	2.2	4.0	ug/l	J
	Vanadium - Dissolved	7440-62-2					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6					ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6					ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6					ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6					ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5					ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6					4.06	1.20	mg/l	---	3.11	1.20	mg/l	---
	Sulfate	14808-79-8					ND	0.60	mg/l	---	0.75	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506					241	5.0	mg/l	---	352	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508					241	5.0	mg/l	---	352	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

		Sample Name:	RW-5A-081816				OB-7-081816				OB-25-081816			
		Lab Sample ID:	46011889812				46011889813				46011889814			
		Sample Date:	8/18/2016				8/18/2016				8/18/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6												
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
3-Phenylbut-1-ene - TIC	934-10-1												
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7												
Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2												
Benzene, 1,2,4-trimethyl- - TIC	95-63-6												
Benzene, 4-ethyl-1,2-dimethyl- - TIC	934-80-5												
Benzene, propyl- - TIC	103-65-1												
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Indane - TIC	496-11-7												
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Naphthalene - TIC	91-20-3												
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

		Sample Name:	RW-5A-081816				OB-7-081816				OB-25-081816			
		Lab Sample ID:	46011889812				46011889813				46011889814			
		Sample Date:	8/18/2016				8/18/2016				8/18/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	10	ug/l	UJ
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	1.5	2.1	ug/l	J	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.1	ug/l	---	ND	2.1	ug/l	---	1.8	2.1	ug/l	J
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2	ND	10	ug/l	---	ND	11	ug/l	---	1.5	10	ug/l	J
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.1	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0	ND	10	ug/l	---	ND	11	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	---	ND	0.053	ug/l	---	ND	0.052	ug/l	---
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	---	ND	0.053	ug/l	---	ND	0.052	ug/l	---
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	---	ND	0.053	ug/l	---	ND	0.052	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	---	ND	0.053	ug/l	---	ND	0.052	ug/l	---
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	---	ND	0.053	ug/l	---	ND	0.052	ug/l	---
	Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	0.10	0.21	ug/l	J	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

			Sample Name:	RW-5A-081816			OB-7-081816				OB-25-081816			
			Lab Sample ID:	46011889812			46011889813				46011889814			
			Sample Date:	8/18/2016			8/18/2016				8/18/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	65.9	40.0	ug/l	---	ND	40.0	ug/l	---	804	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	0.97	2.0	ug/l	J	ND	2.0	ug/l	---	0.97	2.0	ug/l	J
	Arsenic - Dissolved	7440-38-2	1.3	2.0	ug/l	J	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	17.8	4.0	ug/l	---	18.1	4.0	ug/l	---	45.6	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	17.8	4.0	ug/l	---	17.8	4.0	ug/l	---	34.2	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	0.82	2.0	ug/l	J
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	58500	200	ug/l	---	69900	200	ug/l	---	42900	200	ug/l	---
	Calcium - Dissolved	7440-70-2	62500	200	ug/l	---	73900	200	ug/l	---	44000	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	1.6	4.0	ug/l	J
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	2.9	4.0	ug/l	J	2.0	4.0	ug/l	J
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	2.6	4.0	ug/l	J	ND	4.0	ug/l	---
	Copper	7440-50-8	ND	4.0	ug/l	---	3.3	4.0	ug/l	J	20.0	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	78.9	4.0	ug/l	---
	Iron	7439-89-6	306	120	ug/l	---	2360	120	ug/l	---	1260	120	ug/l	---
	Iron - Dissolved	7439-89-6	ND	120	ug/l	---	ND	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	6.8	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	7340	200	ug/l	---	30500	200	ug/l	---	9930	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	7290	200	ug/l	---	29500	200	ug/l	---	9310	200	ug/l	---
	Manganese	7439-96-5	678	8.0	ug/l	---	2710	8.0	ug/l	---	178	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	675	8.0	ug/l	---	2670	8.0	ug/l	---	5.0	8.0	ug/l	J
	Nickel	7440-02-0	ND	4.0	ug/l	---	2.1	4.0	ug/l	J	3.5	4.0	ug/l	J
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	7850	200	ug/l	---	2810	200	ug/l	---	7350	200	ug/l	---
	Potassium - Dissolved	7440-09-7	8540	200	ug/l	---	3080	200	ug/l	---	7940	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	6330	200	ug/l	---	10600	200	ug/l	---	71300	200	ug/l	---
	Sodium - Dissolved	7440-23-5	6140	200	ug/l	---	10400	200	ug/l	---	67600	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	2.7	4.0	ug/l	J
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	6.8	16.0	ug/l	J	ND	16.0	ug/l	---	28.6	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	8.7	16.0	ug/l	J
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	3.69	1.20	mg/l	---	3.59	1.20	mg/l	---	108	12.0	mg/l	---
	Sulfate	14808-79-8	9.19	0.60	mg/l	---	8.10	0.60	mg/l	---	18.9	0.60	mg/l	J
	APHA-2320B													
	Alkalinity	E-14506	191	5.0	mg/l	---	310	5.0	mg/l	---	137	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	191	5.0	mg/l	---	310	5.0	mg/l	---	137	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

		Sample Name:	RW-5-081816				FB-02-081816				OB-20A-081816			
		Lab Sample ID:	46011889815				4601188982				4601188983			
		Sample Date:	8/18/2016				8/18/2016				8/18/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6												
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
3-Phenylbut-1-ene - TIC	934-10-1												
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7												
Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2												
Benzene, 1,2,4-trimethyl- - TIC	95-63-6												
Benzene, 4-ethyl-1,2-dimethyl- - TIC	934-80-5												
Benzene, propyl- - TIC	103-65-1												
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	2.6	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Indane - TIC	496-11-7												
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	1.4	1.0	ug/l	---	ND	1.0	ug/l	---
Naphthalene - TIC	91-20-3												
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

		Sample Name:	RW-5-081816				FB-02-081816				OB-20A-081816			
		Lab Sample ID:	46011889815				4601188982				4601188983			
		Sample Date:	8/18/2016				8/18/2016				8/18/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	20	ug/l	---	ND	20	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	20	ug/l	---	ND	20	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	20	ug/l	---	ND	20	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	2.3	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Di-n-butyl phthalate	84-74-2	1.5	10	ug/l	J	ND	10	ug/l	---	ND	10	ug/l	---
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	---	ND	0.050	ug/l	---	ND	0.051	ug/l	---
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	---	ND	0.050	ug/l	---	ND	0.051	ug/l	---
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	---	ND	0.050	ug/l	---	ND	0.051	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	---	ND	0.050	ug/l	---	ND	0.051	ug/l	---
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	---	ND	0.050	ug/l	---	ND	0.051	ug/l	---
	Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.20	ug/l	---	0.11	0.20	ug/l	J

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

			Sample Name:	RW-5-081816				FB-02-081816				OB-20A-081816			
			Lab Sample ID:	46011889815				4601188982				4601188983			
			Sample Date:	8/18/2016				8/18/2016				8/18/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	168	40.0	ug/l	---	ND	40.0	ug/l	---	65.4	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	48.3	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	8.0	2.0	ug/l	---	ND	2.0	ug/l	---	2.3	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	7.9	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	5.9	4.0	ug/l	---	ND	4.0	ug/l	---	138	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	4.3	4.0	ug/l	---	ND	4.0	ug/l	---	120	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	10100	200	ug/l	---	ND	200	ug/l	---	23600	200	ug/l	---
	Calcium - Dissolved	7440-70-2	8450	200	ug/l	---	ND	200	ug/l	---	24900	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	3.8	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	4.5	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	506	120	ug/l	---	ND	120	ug/l	---	25900	120	ug/l	---
	Iron - Dissolved	7439-89-6	77.4	120	ug/l	J	ND	120	ug/l	---	56.9	120	ug/l	J
	Lead	7439-92-1	1.5	1.2	ug/l	---	ND	1.2	ug/l	---	0.59	1.2	ug/l	J
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	793	200	ug/l	---	ND	200	ug/l	---	2810	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	408	200	ug/l	---	ND	200	ug/l	---	2490	200	ug/l	---
	Manganese	7439-96-5	60.5	8.0	ug/l	---	ND	8.0	ug/l	---	554	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	5.4	8.0	ug/l	J	ND	8.0	ug/l	---	494	8.0	ug/l	---
	Nickel	7440-02-0	2.1	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	1.7	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	76500	200	ug/l	---	ND	200	ug/l	---	2130	200	ug/l	---
	Potassium - Dissolved	7440-09-7	81300	200	ug/l	---	ND	200	ug/l	---	2260	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	57700	200	ug/l	---	ND	200	ug/l	---	3500	200	ug/l	---
	Sodium - Dissolved	7440-23-5	55900	200	ug/l	---	ND	200	ug/l	---	3220	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	1.6	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	1.5	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	24.9	16.0	ug/l	---	ND	16.0	ug/l	---	45.8	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	9.6	16.0	ug/l	J
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---					ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	2.20	0.12	mg/l	---	0.19	0.12	mg/l	---	4.62	1.20	mg/l	---
	Sulfate	14808-79-8	20.0	0.60	mg/l	---	ND	0.60	mg/l	---	0.92	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	227	5.0	mg/l	---	ND	5.0	mg/l	---	82.4	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	22.1	5.0	mg/l	---	ND	5.0	mg/l	---	82.4	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

		Sample Name:	OB-6-081816				OB-21-081816				Dup-02-081816			
		Lab Sample ID:	4601188984				4601188985				4601188986			
		Sample Date:	8/18/2016				8/18/2016				8/18/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6												
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
3-Phenylbut-1-ene - TIC	934-10-1												
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7												
Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2												
Benzene, 1,2,4-trimethyl- - TIC	95-63-6												
Benzene, 4-ethyl-1,2-dimethyl- - TIC	934-80-5												
Benzene, propyl- - TIC	103-65-1												
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Indane - TIC	496-11-7												
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Naphthalene - TIC	91-20-3												
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

		Sample Name:	OB-6-081816				OB-21-081816				Dup-02-081816			
		Lab Sample ID:	4601188984				4601188985				4601188986			
		Sample Date:	8/18/2016				8/18/2016				8/18/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	11	ug/l	UJ
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.1	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.1	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.1	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.1	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.1	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.053	ug/l	---
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.053	ug/l	---
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.053	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.053	ug/l	---
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.053	ug/l	---
	Pentachlorophenol	87-86-5	0.10	0.21	ug/l	J	ND	0.21	ug/l	---	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

			Sample Name:	OB-6-081816				OB-21-081816				Dup-02-081816			
			Lab Sample ID:	4601188984				4601188985				4601188986			
			Sample Date:	8/18/2016				8/18/2016				8/18/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	19.0	40.0	ug/l	J	635	40.0	ug/l	---	618	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	17.0	4.0	ug/l	---	9.3	4.0	ug/l	---	9.2	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	15.6	4.0	ug/l	---	3.5	4.0	ug/l	J	3.2	4.0	ug/l	J
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	20300	200	ug/l	---	11000	200	ug/l	---	11200	200	ug/l	---
	Calcium - Dissolved	7440-70-2	21100	200	ug/l	---	11300	200	ug/l	---	11300	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	1.5	4.0	ug/l	J	1.6	4.0	ug/l	J
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	9.5	4.0	ug/l	---	1.9	4.0	ug/l	J	1.8	4.0	ug/l	J
	Cobalt - Dissolved	7440-48-4	9.1	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	3.9	4.0	ug/l	J	29.3	4.0	ug/l	---	25.8	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	12100	120	ug/l	---	1250	120	ug/l	---	1160	120	ug/l	---
	Iron - Dissolved	7439-89-6	2980	120	ug/l	---	ND	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1	ND	1.2	ug/l	---	1.5	1.2	ug/l	---	1.5	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	5250	200	ug/l	---	5410	200	ug/l	---	5280	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	4670	200	ug/l	---	4520	200	ug/l	---	4460	200	ug/l	---
	Manganese	7439-96-5	836	8.0	ug/l	---	219	8.0	ug/l	---	203	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	749	8.0	ug/l	---	ND	8.0	ug/l	---	ND	8.0	ug/l	---
	Nickel	7440-02-0	2.2	4.0	ug/l	J	4.2	4.0	ug/l	---	4.1	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	1.7	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	1860	200	ug/l	---	1020	200	ug/l	---	1010	200	ug/l	---
	Potassium - Dissolved	7440-09-7	1930	200	ug/l	---	1030	200	ug/l	---	1040	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	UJ	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	15600	200	ug/l	---	3950	200	ug/l	---	3900	200	ug/l	---
	Sodium - Dissolved	7440-23-5	14500	200	ug/l	---	3930	200	ug/l	---	3880	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	1.5	4.0	ug/l	J	1.5	4.0	ug/l	J
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	7.7	16.0	ug/l	J	7.2	16.0	ug/l	J
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	0.0020	0.010	mg/l	J	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	8.53	0.60	mg/l	---	1.74	0.12	mg/l	---	1.67	0.12	mg/l	---
	Sulfate	14808-79-8	22.1	0.60	mg/l	---	7.79	0.60	mg/l	---	7.70	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	74.4	5.0	mg/l	---	48.2	5.0	mg/l	---	44.2	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	74.4	5.0	mg/l	---	48.2	5.0	mg/l	---	44.2	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

		Sample Name:	RW-6-081816				RW-7-081816				OB-5-081816			
		Lab Sample ID:	4601188987				4601188988				4601188989			
		Sample Date:	8/18/2016				8/18/2016				8/18/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	0.64	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1H-Indene, 2,3-dihydro-4-methyl- - TIC	824-22-6												
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
3-Phenylbut-1-ene - TIC	934-10-1												
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	1.9	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7												
Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2												
Benzene, 1,2,4-trimethyl- - TIC	95-63-6												
Benzene, 4-ethyl-1,2-dimethyl- - TIC	934-80-5												
Benzene, propyl- - TIC	103-65-1												
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	10	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	0.75	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Indane - TIC	496-11-7												
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.17	1.0	ug/l	J
Methylcyclohexane	108-87-2	0.75	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Naphthalene - TIC	91-20-3												
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

		Sample Name:	RW-6-081816				RW-7-081816				OB-5-081816			
		Lab Sample ID:	4601188987				4601188988				4601188989			
		Sample Date:	8/18/2016				8/18/2016				8/18/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	11	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
	2-Nitroaniline	88-74-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	0.93	2.1	ug/l	J	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Butyl benzyl phthalate	85-68-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Di-n-octyl phthalate	117-84-0	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3	ND	1.1	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0	ND	11	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[a]pyrene	50-32-8	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[b]fluoranthene	205-99-2	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.053	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Pentachlorophenol	87-86-5	0.11	0.21	ug/l	J	ND	0.21	ug/l	---	0.11	0.21	ug/l	J

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118898-1

			Sample Name:	RW-6-081816				RW-7-081816				OB-5-081816			
			Lab Sample ID:	4601188987				4601188988				4601188989			
			Sample Date:	8/18/2016				8/18/2016				8/18/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	18.4	40.0	ug/l	J	295	40.0	ug/l	---	ND	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	1.2	2.0	ug/l	J	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	429	4.0	ug/l	---	2.2	4.0	ug/l	J	28.4	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	261	4.0	ug/l	---	ND	4.0	ug/l	---	18.3	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	80300	200	ug/l	---	12300	200	ug/l	---	74200	200	ug/l	---
	Calcium - Dissolved	7440-70-2	82000	200	ug/l	---	11800	200	ug/l	---	78100	200	ug/l	---
	Chromium	7440-47-3	1.8	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	4.8	4.0	ug/l	---	ND	4.0	ug/l	---	6.2	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	4.5	4.0	ug/l	---	ND	4.0	ug/l	---	5.4	4.0	ug/l	---
	Copper	7440-50-8	ND	4.0	ug/l	---	2.7	4.0	ug/l	J	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	43800	120	ug/l	---	1050	120	ug/l	---	21100	120	ug/l	---
	Iron - Dissolved	7439-89-6	7640	120	ug/l	---	ND	120	ug/l	---	5150	120	ug/l	---
	Lead	7439-92-1	ND	1.2	ug/l	---	0.59	1.2	ug/l	J	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	14900	200	ug/l	---	4570	200	ug/l	---	39200	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	14600	200	ug/l	---	3780	200	ug/l	---	38100	200	ug/l	---
	Manganese	7439-96-5	7470	8.0	ug/l	---	15.8	8.0	ug/l	---	2430	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	7420	8.0	ug/l	---	ND	8.0	ug/l	---	2490	8.0	ug/l	---
	Nickel	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	2.3	4.0	ug/l	J
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	1.8	4.0	ug/l	J
	Potassium	7440-09-7	3090	200	ug/l	---	953	200	ug/l	---	3550	200	ug/l	---
	Potassium - Dissolved	7440-09-7	3250	200	ug/l	---	963	200	ug/l	---	3820	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	7580	200	ug/l	---	4210	200	ug/l	---	34800	200	ug/l	---
	Sodium - Dissolved	7440-23-5	7370	200	ug/l	---	4070	200	ug/l	---	33900	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	6.13	1.20	mg/l	---	1.62	0.12	mg/l	---	89.9	6.00	mg/l	---
	Sulfate	14808-79-8	0.68	0.60	mg/l	---	9.10	0.60	mg/l	---	7.61	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	304	5.0	mg/l	---	40.2	5.0	mg/l	---	304	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	304	5.0	mg/l	---	40.2	5.0	mg/l	---	304	5.0	mg/l	---

APPENDIX 5

September 11, 2016

Tim Roeper
Cornerstone EG
100 Crystal Run Road
Suite 101
Middletown, NY 10941

CADENA project ID: E203361
Project: Ford Ringwood Mines Project
Project number:
Client project scope reference: Sample COC only was used to define project analytical requirements.
Laboratory: TestAmerica - Edison
Laboratory submittal: 118898-1
Sample date: 2016-08-18
Report received by CADENA: 2016-09-09
Initial Data Verification completed by CADENA: 2016-09-11

The following minor QC exceptions or missing information were noted:

LCS - GCMS SVOC QC batch 386330 LCS recoveries were outliers biased low for the following analytes: 2-METHYLPHENOL. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: 2-METHYLPHENOL - all samples.

MSD - GCMS SVOC sample -004 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased low for the following analytes: 2-METHYLPHENOL. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

TIC - GCMS VOC Tentatively Identified Compounds (TIC's) detected results should be considered to be estimated and qualified with NJ flags.

MSD - METALS sample -004 MS recovery (no MSD performed) were outliers with the recovery biased low for the following analytes: SILVER. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

MSD - SULFATE sample -014 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased low. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

GCMS SVOC sample -002, -003, -004, -005, -007, -009, -010, -011, -012, -013, -014, -015, -004MS, -004MSD, LCS surrogate recovery outliers (1 out of 3 acid fraction surrogates only were outliers biased high) did not result in qualification of client sample data.

PCB sample -004 MS or MSD recoveries but not both or RPD only were outliers for AROCLOR 1260 so client sample results were not qualified based on these QC outliers alone.

PCB QC batch 386623 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

METALS QC batch 387091 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

SULFATE QC batch 387602 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

CHLORIDE QC batch 387602 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

METALS sample -004 MS and or MSD recovery outliers were not used to qualify results for MANGANESE, SODIUM, MAGNESIUM, CALCIUM due to high levels of these target analytes in the original sample relative to the spike concentration (4X rule).

SULFATE sample -009 MS or MSD recoveries but not both or RPD only were outliers so client sample results were not qualified based on these QC outliers alone.

CHLORIDE sample -009 MS and or MSD recoveries were diluted to below reliably quantifiable levels so were not used to qualify client sample results.

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

14 Water sample(s) were analyzed for GCMS VOC, GCMS SVOC, GC Other, Metals, General Chemistry and MISC parameter(s). 1 Trip blank was analyzed for GCMS VOC parameters.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, LCS/LCD RPD, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Qualifiers added during verification have been added to the electronic data which is available for download from the CADENA CLMS. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory analytical report access the CADENA CLMS at http://clms.cadenaco.com/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
J-	The result is an estimated quantity, but the result may be biased low.
JB	NON-DETECT AT THE CONCENTRATION REPORTED AND ESTIMATED
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
JUB	NON-DETECT AT THE REPORTING LIMIT AND ESTIMATED
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY

460-118898 Chain of Custody

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Page 1 of 2

Name (for report and invoice): Tim Roeper	Samplers Name (Printed): Robert Lautenberg	Site/Project Identification: Ford - Ringwood	
Company: Cornerstone Environmental Group	P. O. #: 140802-015	State (Location of site): NJ: ☒ NY: ☐ Other:	
Address: 100 Crystal Run Rd, Suite 101		Regulatory Program:	DKQP: ☐
City: Middletown State: NY 10941	Analysis Turnaround Time: Standard ☒; Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐		LAB USE ONLY Project No: Job No: 118898
Phone: 845-695-0200 Fax:			

ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC+15 TICs 8260B	TCL SVOC+15 TICs 8270C	TCL Metals Total + Filtered 6010B/7470A	PCB's	Alkalinity, Total as CaCO3 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	Sample Numbers
TB-03-081816	8/18/16	—	BW	3	✓								-1
FB-02-081816	8/18/16	08:30	BW	13	✓	✓	✓	✓	✓	✓	✓	✓	-2
OB-20A-081816	8/18/16	09:55	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-3
OB-6-081816	8/18/16	10:20	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-4
OB-6-081816 MS	8/18/16	10:20	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-4
OB-6-081816 MSD	8/18/16	10:20	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-4
OB-21-081816	8/18/16	10:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-5
Dup-02-081816	8/18/16	12:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-6
RW-6-081816	8/18/16	11:20	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-7
RW-7-081816	8/18/16	12:20	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-8

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other ______, 7 = Other ______ Soil: Water:

Special Instructions

Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
1) [signature]	Cornerstone	8/19/16 839	1) [signature]	TA
2) James Thiem	TA	8/19/16 1110	2) Alex Acierno	TA
3)			3)	
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132), Massachusetts (M-NJ312), North Carolina (No. 578)

TAL-0016 (0715)

IR 7 — NO CS 07/02/08/00/01/07

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) Tim Roeper	Samplers Name (Printed) Robert Lavelberg	Site/Project Identification Ford - Ringwood
Company Conestoga Environmental Group	P. O. # 140802-015	State (Location of site): NJ: X NY: Other:
		Regulatory Program: DKQP:
Address 100 Crystal Run Rd, Suite 101	Analysis Turnaround Time: Standard X	
City Middletown State NY 10941	Rush Charges Authorized For: 2 Week / 1 Week / Other	
Phone 845-695-0200 Fax		

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOCs 8260B	TCL SVOCs 8270C	TCL Metals - Total & Filtered - each/each	PCBs	Alkalinity - Total as $CaCO_3$ 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	LAB USE ONLY Project No: / Job No: 118898 / Sample Numbers
OB-5-081816	8/18/16	12:40	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-9
OB-20B-081816	8/18/16	12:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-10
RW-6A-081816	8/18/16	14:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-11
RW-5A-081816	8/18/16	14:45	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-12
OB-7-081816	8/18/16	15:10	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-13
OB-25-081816	8/18/16	16:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-14
RW-5-081816	8/18/16	16:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-15

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH — Soil: / Water:
6 = Other _____, 7 = Other _____

Special Instructions Water Metals Filtered (Yes/No)? _____

	Company	Date / Time		Company
Relinquished by	Conestoga	8/19/16 839	Received by 1)	TA
Relinquished by 2)	TA	8/19/16 1110	Received by 2)	
Relinquished by 3)			Received by 3)	
Relinquished by 4)			Received by 4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).
Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0715)

IR7- NOC5

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
SOW available?				**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**
Scope validation criteria referenced				**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**
Lab certifications required				**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**
Lab single blind PE samples completed				**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**
SAMPLING ISSUES				NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS															
holding times				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
preservation				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
temperature of cooler - degrees C				**0.0 to 0.8**	**0.0 to 0.8**	**0.0 to 0.8**	**0.0 to 0.8**	**0.0 to 0.8**	**0.0 to 0.8**	**0.0 to 0.8**	**0.0 to 0.8**	**0.0 to 0.8**	**0.0 to 0.8**	**0.0 to 0.8**	**0.0 to 0.8**
COC discrepancies				**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**
sample integrity (containers, amounts)				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
ANALYTICAL/PREP GENERAL				**8260C**	**8260C SIM**	**8270D**	**SVOC-SIM**	**PCB**	**METALS-D**	**METALS -T**	**MERCURY-D**	**MERCURY-T**	**CYANIDE**	**CL/SO4**	**ALK**
prep batch		LAB		**NA**	**NA**	**386330**	**386330**	**386385 386469 386623**	**387390 387404**	**387090 287091**	**386977 387416 386975 387417**	**386526**	**387409**	**NA**	**NA**
prep date		LAB		**NA**	**NA**	**23-Aug**	**23-Aug**	**8/23/2016 8/24**	**29-Aug**	**8/26/2016**	**8/26/2016 8/29**	**8/24/2016**	**29-Aug**	**NA**	**NA**
analytical batch		LAB		**386495**	**386497 386835**	**386667 386897 387329**	**387556 387794**	**386460 386462 386241**	**388143 387675**	**387734 387394 387280**	**386973 387413**	**386526**	**387474**	**386092 386479 387602 387892**	**388178 387653**
analytical date		LAB		**24-Aug**	**8/24/2016 8/26**	**8/29/2016 8/28**	**8/30/2016 8/31**	**8/24/2016 8/25 8/26**	**8/29/2016 8/31**	**8/30 8/27 8/28**	**8/26/2016 8/29**	**8/24/2016**	**29-Aug**	**8/22/2016 8/24 8/30 8/31**	**8/30 9/1**
instrument ID		LAB		**CVOAMS5**	**CVOAMS11**	**CBNAMS6 CBNAMS4**	**CBNAMS9**	**CPESTGC9**	**ICPMS2 ICPMS1**	**ICPMS3**	**LEEMAN6**	**LEEMAN6**	**LACHAT3**	**IC A**	**NA**
Instrument Tune		METHOD	tune	**OK**	**OK**	**OK**	**OK**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**
Instrument Performance Checks		METHOD	tailing, degradation	**NA**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
ICAL (Initial Calibration Curve)	CURVE ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	**56415**	**57303**	**57424**	**57255 57491**	**57495 57496**	**OK**	**OK**	**OK**	**OK**	**OK**	**57277**	**NA**
ICAL (Initial Calibration Curve)	CURVE DATE	METHOD		**22-Jun**	**19-Aug**	**8/22/2016 8/9 8/23**	**15-Aug**	**23-Aug**	**OK**	**OK**	**OK**	**OK**	**OK**	**17-Aug**	**NA**
ICV (Initial Calibration Verification)		METHOD	max 30%	**OK**	**OK**	**NO RAW DATA**	**NO RAW DATA**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**385365**	**NA**

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
CCV (Continuing Calibration Verification)		METHOD	max 20%/50%	LOW-1122TCA high-TCFM	OK	387265-HIGH-4NP,PCP,246TBP(surr) 387329-HIGH-NNDMA,PYRIDINE,PHENOL,2FP(surr)	OK	OK	OK	OK	OK	OK	OK	OK	OK
Target Compound Lists		SCOPE/COC		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Reporting Limits (RL/PQL/LOQ) compliant		SCOPE	1.0 ug/l	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Blanks-method/calibration	method blank	NFG		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
LCS (Laboratory Control Spikes)		lab control limits	by method	OK	OK	386330-low-2MP	OK	OK	OK	OK	OK	OK	OK	OK	OK
MS/MSD (Matrix Spikes)		lab control limits	by method		NONE	LOW-2MP--004MS/MSD	NONE	samp-004 1260 MSD ONLY 386623 - NCS	SAMP-004 LOW MS-D.AG 387091-NCS SAMP-004 4X-MN,NA,MG,CA	OK	OK	OK	OK	SAMP-014 S04 LOW MS/MSD 387602-NCS SAMP-009 HIGH-MS ONLY-SO4, DO-CL	NA
Sample duplicates		lab control limits	NA	NA	NA	NA	NA	NA	OK	SAMP-004 AL-OK LOW	OK	OK	NA	OK	OK
Internal standard reponses/RRT		METHOD	50-200%	OK	OK	OK	OK	1 INTERNAL STANDARD - ALL OK	NA	NA	NA	NA	NA	NA	NA
Surrogate recoveries		lab control limits	SVOC BN surrogates	OK	OK	1 out of 3 acid high - 2,3,4,5,7,9,10,11,12,13,14,15,LCS,MS,MSD	OK	OK	NA	NA	NA	NA	NA	NA	NA
Qualitative criteria met		METHOD		OK	OK	OK	OK	OK	NA	NA	NA	NA	NA	NA	NA
TICS (Tentatively Identified Compounds)		METHOD		YES	NO	NO	NO	NA	NA	NA	NA	NA	NA	NA	NA
TIC blanks		NFG		NA	NA	NA	NO	NA	NA	NA	NA	NA	NA	NA	NA
Trip blanks		NFG		ND	ND	NA	NO	NA	NA	NA	NA	NA	NA	NA	NA
Field blanks		NFG		OK	OK	NA	NO	NA	NA	NA	NA	NA	NA	NA	NA
Field duplicates		SCOPE		NA	NA	NA	NO	NA	NA	NA	NA	NA	NA	NA	NA
Post Digestion Spikes (PDS)		METHOD		NA	NA	NA	NA	NA	OK	OK	NA	NA	NA	NA	NA
Serial Dilution (SD)		METHOD		NA	NA	NA	NA	NA	OK	OK	NA	NA	NA	NA	NA
CRQL checks performed?		SCOPE		NA	NA	NA	NA	NA	OK	OK	OK	OK	NA	NA	NA
E flagging required		LAB		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
GENERAL QC TRACKING															
Control Limits		SCOPE	see above	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**
Certificates of Analysis for primary standards		VENDOR	required for NIST trace	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**
Working/Intermediate standard prep calculations		LAB	prep log	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Prep technique		not specified	VARIES	**5030**	**5030**	**3510C**	**3510C**	**3510C**	**3010A**	**3010A**	**NA**	**NA**	**NA**	**NA**	**NA**
Prep sample volumes/mass		not specified	VARIES	**5**	**5**	**250**	**250**	**250**	**50 10**	**50 10**	**50 30**	**30**	**5**	**NA**	**50**
OVERALL							**NO**								
Data Reportable?				**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**
Comments (other)						**LVE/HVI - 250ML/2ML-5UL**	**LVE/HVI - 250ML/2ML-5UL**	**LVE - 250 ML**							

E-Mail Date: 2016-09-30
E-Mail To: tim.roeper@cornerstoneeg.com
cc:

U.S. Mail: Tim Roeper
Cornerstone Environmental Group
100 Crystal Run Road, Suite 101
Middletown, NY 10941

ANALYTICAL DATA VALIDATION REPORT
Ringwood Mines/Landfill
Ford Motor Company
PROJECT 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED August 19, 2016
DATA PACKAGE RECEIVED September 9, 2016
SUBMITTAL #: 460-118951-1

PREPARED BY:
CADENA, INC.
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Contact: Jim Tomalia (jtomalia@cadenaco.com)
Date: 2016-09-30
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TABLE OF CONTENTS

LISTS OF APPNEDICES

(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by TestAmerica-Edison Laboratory the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	GCMS VOC	GCMS VOC SIM	OSW-SVOC	GCMS SVOC SIM	OSW-PCB	Dissolved Metals by ICP MS	Total Metals by ICP MS	Mercury (Manual Cold Vapor) (D)	Mercury (Manual Cold Vapor) (T)	TOTAL CYANIDE	SULFATE CHLORIDE by IC	Alkalinity
4601189511	SC-1-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601189512	SW-11-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601189513	SW-PAB-00-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601189514	SR3-Pond-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601189515	SR3-SEEP-1-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601189516	SR3-SEEP-2-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601189517	SW-PAB-01-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601189518	SW-PAB-01A-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
4601189519	SW-MRB-00-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011895110	SW-NOB-02-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011895111	SW-PAB-04-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011895112	SW-SP-01-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011895113	SW-03-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011895114	SW-04-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011895115	SW-MRB-03-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011895116	SW-MRB-02-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011895117	FB-03-081916	8/19/2016	X	X	X	X	X	X	X	X	X	X	X	X
46011895118	TB-04-081916	8/19/2016	X	X										

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	***Reference Method***	***Analyte Listing***
GCMS VOC Organics	OSW-8260C	Target Compound List
GCMS VOC Organics-SIM	OSW-8260C-SIM	1,2-Dibromo-3-chloropropane and EDB
Semi-Volatile Organics	OSW-8270D	Target Compound List
Semi-Volatile Organics	OSW-8270D/SIM	PAH, PCP, HCB, B2CEE
GC ECD Semi-Volatiles	OSW-8082A	PCB's
Metals by ICP/MS	OSW-6020A	Target Analyte List(total,dissolved)
Mercury by Cold Vapor	OSW-7470A	Mercury(total, dissolved)
Total Cyanide	OSW-9012B	Total Cyanide
Ion Chromatography	OSW-9056A	Chloride, Sulfate
Alkalinity	APHA-2320B	Alkalinity, Bicarbonate Alkalinity

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

Additional data qualifications based on review of the level 4 data package using laboratory criteria provided if required are noted below. Qualifications that would be required based on comparison to NFG criteria are noted where applicable. These qualifications would be added to the database and associated summary tables in the appendices if applicable.

METALS

Sample -004 duplicate RPD was outside of laboratory control limits for DISSOLVED SODIUM. Client sample -004 dissolved sodium results should be considered to be estimated and qualified with a J flag.

ION CHROMATOGRAPHY

Sulfate results for client sample -006 had the qualification REMOVED (J flag) since only the MS sulfate recovery was an outlier biased low and the MSD recovery and MS/MSD RPD were within laboratory control limits.

The following observations **DID NOT** result in qualification but were noted during the validation review:

ALL TEST DATA

Certificates of analysis for standards and all working/primary standard concentrations that are required to verify calibration standard concentrations and spike levels were not available in the laboratory data package for review.

GCMS VOC

GCMS VOC CCV high bias outliers in QC batch 386590 and 386348 for TRICHLOROFLUOROMETHANE did not require qualification of client sample results since all associated sample results were non-detect.

GC/MS SVOC and GCMS SVOC-SIM

Initial Calibration Verification (ICV) raw data was not available for reconstruction/re-calculation of ICV results.

GCMS SVOC CCV high bias outliers in QC batch 387628 for 1,1-BIPHENYL and PENTACHLOROPHENOL did not require qualification of client sample results since all associated target analyte results were non-detect.

GC/MS SVOC-SIM

General note that calibration curves using LINEAR regression algorithms typically show reduced accuracy near the reporting limit. In the case of PENTACHLOROPHENOL for this data package the linear regression curve showed poor linearity at levels below the 0.4ug/l concentration sample analyte level. Several sample results were quantitated below that level but have not been qualified based on this calibration curve observation since they are already qualified as estimated due to being detected at levels below the RL.

PCB

P flags (relative percent different of greater than 40% for results between primary and secondary columns) were assigned by the lab for surrogates only in client samples -001, -006 and -007 so qualification of client sample results was not required based on these flagged QC results.

METALS

No non-conformances were observed.

VERIFICATION SUMMARY

The following qualifications and associated data flags were applied based on the initial level 2 review of this data package.

TBK - GCMS VOC TRIP blanks had detections above the RL for the following analytes: ACETONE. The following client sample results should be considered to be non-detect at the RL and qualified with UB flags: ACETONE - sample -003 the following client sample results should be considered to be non-detect at the concentration reported and qualified with B flags: ACETONE - sample -004, -005, -006, -007, -008, -010, -

011, -012, -017. NOTE: Sample dilution factors are not included when assigning qualification based on trip blank detections.

LCS - GCMS SVOC-SIM QC batch 386536 LCS recoveries were outliers biased low for the following analytes: BENZO(A)ANTHRACENE, BENZO(A)PYRENE, BENZO(B)FLUORANTHENE, DIBENZO(AH)ANTHRACENE, HEXACHLOROBENZENE, INDENO(123-CD)PYRENE. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: ALL sample results for BENZO(A)ANTHRACENE, BENZO(A)PYRENE, BENZO(B)FLUORANTHENE, DIBENZO(AH)ANTHRACENE, HEXACHLOROBENZENE, INDENO(123-CD)PYRENE .

MSD - SULFATE sample -006 MS recovery outliers (no MSD in batch) were outliers with the recovery biased low. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

TIC - GCMS VOC Tentatively Identified Compounds (TIC's) detected results should be considered to be estimated and qualified with NJ flags.

GCMS VOC sample -004 MS/MSD recoveries were outliers biased high for the following analytes: CHLOROETHANE. Associated client sample results were non-detect so qualification was not required based on these high bias QC outliers.

GCMS SVOC QC batch 387628, GCMS VOC QC batch 386590, 386348 CCV response outliers as noted in the laboratory submittal case narrative were not used to qualify client sample results as part of this level 2 data package verification review.

GC VOC sample -004 MS or MSD recoveries but not both or RPD only were outliers for ETHYLENE DIBROMIDE so client sample results were not qualified based on these QC outliers alone.

GCMS SVOC sample -004 MS or MSD recoveries but not both or RPD only were outliers for 2-METHYLPHENOL, PYRENE so client sample results were not qualified based on these QC outliers alone.

PCB sample -004 MS or MSD recoveries but not both or RPD only were outliers for AROCLOR 1260 so client sample results were not qualified based on these QC outliers alone.

GCMS SVOC sample -003, -004, -005, -006, -007 surrogate recovery outliers (1 out of 3 acid fraction surrogates only) did not result in qualification of client sample data.

METALS sample -004 MS and or MSD recovery outliers were not used to qualify results for TOTAL CALCIUM, DISSOLVED SODIUM due to high levels of these target analytes in the original sample relative to the spike concentration (4X rule).

METALS QC batch 387306, 387370 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

2.0 VOLATILE ORGANIC COMPOUNDS (VOCs) – METHOD SW846 8260C and SIM ANALYSIS

See Attachments for submittal-specific review summary of QC requirements noted below.

The target analyte list was defined by the client-project as TCL List OLM4.2 for 8260C full scan and as noted in section 1 above for SIM analysis.

2.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) VOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS VOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS VOCs

Initial calibration data for VOCs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS VOCs

Initial calibration data for VOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

2.2 CONTINUING CALIBRATION – GC/MS VOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless otherwise noted in the executive summary noted above and qualified in the data tables. Target analytes associated with CCV compounds outside of method criteria were qualified as estimated with J flags if sample results were non-detect and estimated with UJ flags if CCV bias was low and sample results was non-detect and J flags if sample results were detections. Non-detect results were not qualified if CCV bias was high and sample results were non-detect.

2.3 INTERNAL STANDARDS – GC/MS VOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS VOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS VOCs

A laboratory control sample (LCS) was prepared and analyzed for VOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless otherwise noted in the executive summary and as qualified the QAR and ARS data tables found in the appendices.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS VOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS VOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS VOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS VOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS VOCs

Tentatively Identified Compounds (TIC) searches were associated with each sample analysis and should all be considered to be estimated and qualified with NJ flags when detected.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS VOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D and SIM analysis – GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

3.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

3.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

3.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

3.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

3.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

3.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

3.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) was prepared and analyzed for the target analyte SVOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

3.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

3.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

3.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

3.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

3.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

3.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal..

4.0 POLYCHLORINATED BIPHENYLS (PCBs) – METHOD SW846 8082A

The target analyte list was defined by the client as the standard 7 aroclors.

4.1 CALIBRATION – GAS CHROMATOGRAPH-ECD

4.1.1 TUNING AND MASS CALIBRATION – PCB

Not applicable for this analysis.

4.1.2 INITIAL CALIBRATION – PCB

Initial calibration data for PCBs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

4.1.3 INITIAL CALIBRATION VERIFICATION – PCB

Initial calibration verification (ICV) standards for PCB analyses were reviewed and met criteria specified by the laboratory with no exceptions.

4.2 CONTINUING CALIBRATION – PCBs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary.

4.3 INTERNAL STANDARDS – PCB

Internal standard (IS) data were reviewed and met criteria unless noted otherwise in verification/validation summary. (NOTE: Lab quantitation approach DID use internal standard quantitation for this submittal).

4.4 SURROGATE SPIKE RECOVERIES – PCB

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

4.5 LABORATORY CONTROL SAMPLE ANALYSES - PCB

A laboratory control sample (LCS) was prepared and analyzed for PCBs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

4.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - PCB

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

CADENA does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

4.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - PCB

There were no field duplicate comparisons performed as part of this validation request.

4.8 EXTRACT CLEANUP - PCB

Extract cleanups were performed in accordance with laboratory SOP's and as noted in level 4 data package prep logs.

4.9 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - PCB

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

4.10 TENTATIVELY IDENTIFIED COMPOUNDS - PCB

Not requested for this analytical procedure.

4.11 BLANKS – METHOD/FIELD/CALIBRATION - PCB

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

5.0 HPLC/IC – METHOD SW846 9056A – CHLORIDE AND SULFATE

5.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

5.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

5.3 CONTINUTING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

5.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

5.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

5.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

5.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

5.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

6.0 METALS – ICPMS by Method 6020A TOTAL AND DISSOLVED and Mercury by Method 7470A

The following samples provided in this SDG underwent a Level IV review for either/and metals or mercury analyses:

- Method 6020A: ALL
- Method 7470A: ALL

6.1 ICP/MS TUNING AND MASS CALIBRATION

Instrument tuning data were reviewed. Tuning elements were analyzed. All tuning criteria were met for the analyses, indicating proper optimization of the instrumentation.

6.2 INITIAL CALIBRATION

Initial calibration data for metals and mercury were reviewed and met the criteria for linearity of response without exception.

6.3 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards for metals and mercury analyses were reviewed and met criteria unless otherwise noted in verification/validation summary section of this document.

An initial calibration blank (ICB) was analyzed for metals and mercury analyses. Metals and mercury were reported as non-detect in each ICB analysis unless noted otherwise in verification/validation summary.

6.4 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for metals and mercury analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

6.5 INTERFERENCE CHECK STANDARD

The interference check standard results were reviewed and found to meet criteria.

6.6 INTERNAL STANDARDS

Internal standard (IS) data were reviewed and found to meet criteria unless noted otherwise in verification/validation summary.

6.7 LABORATORY CONTROL SAMPLE ANALYSIS

A laboratory control sample (LCS) was prepared and analyzed for metals and mercury. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

6.8 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE (MS/MSD) ANALYSES

The MS/MSD recoveries and RPD's were either not performed using a client sample or were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

6.9 CONTRACT REQUIRED DETECTION LIMIT STANDARD ANALYSES

Each contract required detection limit (CRDL) standard was analyzed at the proper frequency and were within laboratory control limits unless noted otherwise in verification/validation summary.

6.10 ICP SERIAL DILUTION

Serial dilutions were analyzed at the proper frequency and were either not performed using the client sample or were within laboratory control limits unless noted otherwise in verification/validation summary.

6.11 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

6.12 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

6.13 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

7.0 GENERAL CHEMISTRY- TOTAL AND AMENABLE CYANIDE AND ALKALINITY – METHODS 9012B and 2320B

7.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

7.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

7.3 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

7.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

7.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

7.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

7.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

7.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

8.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

8.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

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All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	***Reference Method***	***Matrix***	***Preservation & Storage***	***Holding Times***
Volatile Organics by GCMS	OSW-8260C/SIM	Water	Acidify ph<2 Refrigeration 0-6oC	14 days
Semivolatile Organics by GCMS	OSW-8270D/SIM	Water	Refrigeration 0-6oC	7 days Extraction 40 days Analysis
Polychlorinated Biphenyls by GC/ECD	OSW-8082A	Water	Refrigeration 0-6oC	365 days - Extraction - Analysis
Metals by ICP/ICPMS Spectroscopy	OSW-6010B OSW-6020A	Water	Acidify pH<2 Refrigeration 0-6oC	180 days
Mercury in Aqueous Waste	OSW-7470A	Water	Acidify pH<2 Refrigeration 0-6oC	28 days
Alkalinity	EPA 2320B	Water	Refrigeration 0-6oC	14 days
Chloride and Sulfate	OSW-9056A	Water	Refrigeration 0-6oC	28 days
Total and Amenable Cyanide	OSW-9012B	Water	Test for presence of Sulfide – if unknown collect two samples and treat one with Lead Carbonate. Then adjust sample to pH of greater than or equal to 12with NaOH. Refrigeration	14 days if preserved. 24 hours or sooner if unpreserved

			at 0-4C –(also may require treatment for aldehydes and chlorine/hypochlorite/sulfite)	

8.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

9.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

10.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: TestAmerica-Edison
Laboratory Submittal: 118951-1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS VOC Volatiles	GCMS VOC SIM	OSW-8270D	GCMS SVOC SIM	OSW-8082A	Metals by ICP Mass Spectroscopy(D)	Metals by ICP Mass Spectroscopy	Mercury (Manual Cold Vapor)(D)	Mercury (Manual Cold Vapor)	TOTAL AND AMENABLE CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Anions by IC	Alkalinity Prep
4601189511	SC-1-081916	8/19/2016	11:35:00	X	X	X	X	X	X	X	X	X	X	X	X
46011895110	SW-NOB-02-081916	8/19/2016	10:25:00	X	X	X	X	X	X	X	X	X	X	X	X
46011895111	SW-PAB-04-081916	8/19/2016	10:40:00	X	X	X	X	X	X	X	X	X	X	X	X
46011895112	SW-SP-01-081916	8/19/2016	11:05:00	X	X	X	X	X	X	X	X	X	X	X	X
46011895113	SW-03-081916	8/19/2016	12:40:00	X	X	X	X	X	X	X	X	X	X	X	X
46011895114	SW-04-081916	8/19/2016	12:05:00	X	X	X	X	X	X	X	X	X	X	X	X
46011895115	SW-MRB-03-081916	8/19/2016	1:40:00	X	X	X	X	X	X	X	X	X	X	X	X
46011895116	SW-MRB-02-081916	8/19/2016	1:55:00	X	X	X	X	X	X	X	X	X	X	X	X
46011895117	FB-03-081916	8/19/2016	2:30:00	X	X	X	X	X	X	X	X	X	X	X	X
46011895118	TB-04-081916	8/19/2016	12:00:00	X	X										
4601189512	SW-11-081916	8/19/2016	8:25:00	X	X	X	X	X	X	X	X	X	X	X	X
4601189513	SW-PAB-00-081916	8/19/2016	7:55:00	X	X	X	X	X	X	X	X	X	X	X	X
4601189514	SR3-Pond-081916	8/19/2016	10:35:00	X	X	X	X	X	X	X	X	X	X	X	X
4601189515	SR3-SEEP-1-081916	8/19/2016	11:40:00	X	X	X	X	X	X	X	X	X	X	X	X
4601189516	SR3-SEEP-2-081916	8/19/2016	12:10:00	X	X	X	X	X	X	X	X	X	X	X	X
4601189517	SW-PAB-01-081916	8/19/2016	1:15:00	X	X	X	X	X	X	X	X	X	X	X	X
4601189518	SW-PAB-01A-081916	8/19/2016	1:40:00	X	X	X	X	X	X	X	X	X	X	X	X
4601189519	SW-MRB-00-081916	8/19/2016	1:05:00	X	X	X	X	X	X	X	X	X	X	X	X

APPENDIX 2

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

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LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

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LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
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APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
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APPENDIX 3

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SC-1-081916				SW-NOB-02-081916				SW-PAB-04-081916			
		Lab Sample ID:	4601189511				46011895110				46011895111			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
3-Phenylbut-1-ene - TIC	934-10-1	6.4	---	ug/l	NJ								
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	6.6	5.0	ug/l	B	8.2	5.0	ug/l	B
Benzene	71-43-2	1.8	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Benzene, 1,2,3,4-tetramethyl- - TIC	488-23-3	6.2	---	ug/l	NJ								
Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7	11	---	ug/l	NJ								
Benzene, 1,2,3-trimethyl- - TIC	526-73-8	6.6	---	ug/l	NJ								
Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2	7.0	---	ug/l	NJ								
Benzene, 1,2,4-trimethyl- - TIC	95-63-6	8.3	---	ug/l	NJ								
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2	8.8	---	ug/l	NJ								
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	0.35	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	2.0	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	2.5	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	1.5	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	2.0	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	1.9	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Naphthalene - TIC	91-20-3	8.8	---	ug/l	NJ								
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	0.38	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	64	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SC-1-081916				SW-NOB-02-081916				SW-PAB-04-081916			
		Lab Sample ID:	4601189511				46011895110				46011895111			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC													
OSW-8270D													
1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Methylphenol	95-48-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Bis(2-ethylhexyl) phthalate	117-81-7	1.2	2.1	ug/l	J	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Caprolactam	105-60-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Di-n-butyl phthalate	84-74-2	0.89	10	ug/l	J	ND	10	ug/l	---	ND	10	ug/l	---
Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
N-Nitrosodiphenylamine	86-30-6	1.1	10	ug/l	J	ND	10	ug/l	---	ND	10	ug/l	---
Naphthalene	91-20-3	5.9	10	ug/l	J	ND	10	ug/l	---	ND	10	ug/l	---
Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM													
Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Hexachlorobenzene	118-74-1	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Pentachlorophenol	87-86-5	0.11	0.21	ug/l	J	0.11	0.21	ug/l	J	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

			Sample Name:	SC-1-081916				SW-NOB-02-081916				SW-PAB-04-081916			
			Lab Sample ID:	4601189511				46011895110				46011895111			
			Sample Date:	8/19/2016				8/19/2016				8/19/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	50.0	40.0	ug/l	---	36.0	40.0	ug/l	J	26.7	40.0	ug/l	J
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	429	4.0	ug/l	---	9.2	4.0	ug/l	---	24.8	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	360	4.0	ug/l	---	8.6	4.0	ug/l	---	23.0	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	43600	200	ug/l	---	10500	200	ug/l	---	23600	200	ug/l	---
	Calcium - Dissolved	7440-70-2	42900	200	ug/l	---	11000	200	ug/l	---	24700	200	ug/l	---
	Chromium	7440-47-3	3.5	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	3.4	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	3.2	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	3.1	4.0	ug/l	J
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	77200	120	ug/l	---	77.8	120	ug/l	J	210	120	ug/l	---
	Iron - Dissolved	7439-89-6	44600	120	ug/l	---	ND	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1	7.9	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	4720	200	ug/l	---	4830	200	ug/l	---	5380	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	4820	200	ug/l	---	4930	200	ug/l	---	5470	200	ug/l	---
	Manganese	7439-96-5	839	8.0	ug/l	---	14.2	8.0	ug/l	---	64.4	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	764	8.0	ug/l	---	6.3	8.0	ug/l	J	29.5	8.0	ug/l	---
	Nickel	7440-02-0	13.2	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	27.6	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	2610	200	ug/l	---	862	200	ug/l	---	1110	200	ug/l	---
	Potassium - Dissolved	7440-09-7	2530	200	ug/l	---	908	200	ug/l	---	1160	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	4000	200	ug/l	---	3520	200	ug/l	---	6380	200	ug/l	---
	Sodium - Dissolved	7440-23-5	3960	200	ug/l	---	3320	200	ug/l	---	6320	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	2.6	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	18.3	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	0.0031	0.010	mg/l	J	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	3.41	1.20	mg/l	---	1.68	0.12	mg/l	---	7.66	0.60	mg/l	---
	Sulfate	14808-79-8	ND	0.60	mg/l	---	7.05	0.60	mg/l	---	2.47	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	171	5.0	mg/l	---	40.2	5.0	mg/l	---	76.4	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	171	5.0	mg/l	---	40.2	5.0	mg/l	---	76.4	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SW-SP-01-081916				SW-03-081916				SW-04-081916			
		Lab Sample ID:	46011895112				46011895113				46011895114			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
3-Phenylbut-1-ene - TIC	934-10-1												
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	9.4	5.0	ug/l	B	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Benzene, 1,2,3,4-tetramethyl- - TIC	488-23-3												
Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7												
Benzene, 1,2,3-trimethyl- - TIC	526-73-8												
Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2												
Benzene, 1,2,4-trimethyl- - TIC	95-63-6												
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2												
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Naphthalene - TIC	91-20-3												
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SW-SP-01-081916				SW-03-081916				SW-04-081916			
		Lab Sample ID:	46011895112				46011895113				46011895114			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---	ND	20	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.0	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.0	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	20	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	20	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.0	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	4.0	2.1	ug/l	---	2.0	2.1	ug/l	J	1.7	2.0	ug/l	J
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.0	ug/l	---
	Di-n-butyl phthalate	84-74-2	2.4	10	ug/l	J	1.9	10	ug/l	J	1.3	10	ug/l	J
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.050	ug/l	UJ
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.050	ug/l	UJ
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.050	ug/l	UJ
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.020	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.050	ug/l	UJ
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.020	ug/l	UJ
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.050	ug/l	UJ
	Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.21	ug/l	---	ND	0.20	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

			Sample Name:	SW-SP-01-081916				SW-03-081916				SW-04-081916			
			Lab Sample ID:	46011895112				46011895113				46011895114			
			Sample Date:	8/19/2016				8/19/2016				8/19/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	18.7	40.0	ug/l	J	26.1	40.0	ug/l	J	ND	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	63.0	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	12.7	4.0	ug/l	---	18.1	4.0	ug/l	---	18.3	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	12.0	4.0	ug/l	---	16.1	4.0	ug/l	---	18.4	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	12000	200	ug/l	---	18300	200	ug/l	---	36800	200	ug/l	---
	Calcium - Dissolved	7440-70-2	13000	200	ug/l	---	17900	200	ug/l	---	37600	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	ND	4.0	ug/l	---	2.7	4.0	ug/l	J	1.6	4.0	ug/l	J
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	695	120	ug/l	---	505	120	ug/l	---	131	120	ug/l	---
	Iron - Dissolved	7439-89-6	291	120	ug/l	---	179	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	3670	200	ug/l	---	6350	200	ug/l	---	9840	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	3860	200	ug/l	---	6100	200	ug/l	---	10600	200	ug/l	---
	Manganese	7439-96-5	113	8.0	ug/l	---	193	8.0	ug/l	---	31.6	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	12.6	8.0	ug/l	---	103	8.0	ug/l	---	16.5	8.0	ug/l	---
	Nickel	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	2.7	4.0	ug/l	J	ND	4.0	ug/l	---
	Potassium	7440-09-7	914	200	ug/l	---	887	200	ug/l	---	2690	200	ug/l	---
	Potassium - Dissolved	7440-09-7	1020	200	ug/l	---	873	200	ug/l	---	2700	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	18100	200	ug/l	---	82700	200	ug/l	---	81700	200	ug/l	---
	Sodium - Dissolved	7440-23-5	18800	200	ug/l	---	78100	200	ug/l	---	87100	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	34.3	2.40	mg/l	---	134	12.0	mg/l	---	149	12.0	mg/l	---
	Sulfate	14808-79-8	5.29	0.60	mg/l	---	5.13	0.60	mg/l	---	7.70	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	30.2	5.0	mg/l	---	32.2	5.0	mg/l	---	98.5	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	30.2	5.0	mg/l	---	32.2	5.0	mg/l	---	98.5	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SW-MRB-03-081916				SW-MRB-02-081916				FB-03-081916			
		Lab Sample ID:	46011895115				46011895116				46011895117			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
3-Phenylbut-1-ene - TIC	934-10-1												
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	6.3	5.0	ug/l	B
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Benzene, 1,2,3,4-tetramethyl- - TIC	488-23-3												
Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7												
Benzene, 1,2,3-trimethyl- - TIC	526-73-8												
Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2												
Benzene, 1,2,4-trimethyl- - TIC	95-63-6												
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2												
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	1.4	1.0	ug/l	---
Naphthalene - TIC	91-20-3												
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	0.39	1.0	ug/l	J	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SW-MRB-03-081916				SW-MRB-02-081916				FB-03-081916			
		Lab Sample ID:	46011895115				46011895116				46011895117			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	2.1	2.1	ug/l	---	3.1	2.1	ug/l	---	ND	2.1	ug/l	---
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2	2.0	10	ug/l	J	1.7	10	ug/l	J	ND	10	ug/l	---
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.21	ug/l	---	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SW-MRB-03-081916				SW-MRB-02-081916				FB-03-081916			
		Lab Sample ID:	46011895115				46011895116				46011895117			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	27.3	40.0	ug/l	J	135	40.0	ug/l	---	ND	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	15.1	40.0	ug/l	J	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	11.9	4.0	ug/l	---	15.0	4.0	ug/l	---	ND	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	10.1	4.0	ug/l	---	11.1	4.0	ug/l	---	ND	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	12800	200	ug/l	---	6350	200	ug/l	---	ND	200	ug/l	---
	Calcium - Dissolved	7440-70-2	12300	200	ug/l	---	5810	200	ug/l	---	ND	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	1.6	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	709	120	ug/l	---	3580	120	ug/l	---	ND	120	ug/l	---
	Iron - Dissolved	7439-89-6	219	120	ug/l	---	834	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1	ND	1.2	ug/l	---	0.68	1.2	ug/l	J	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	4330	200	ug/l	---	2100	200	ug/l	---	ND	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	4310	200	ug/l	---	2030	200	ug/l	---	ND	200	ug/l	---
	Manganese	7439-96-5	226	8.0	ug/l	---	697	8.0	ug/l	---	ND	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	116	8.0	ug/l	---	110	8.0	ug/l	---	ND	8.0	ug/l	---
	Nickel	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	680	200	ug/l	---	276	200	ug/l	---	ND	200	ug/l	---
	Potassium - Dissolved	7440-09-7	642	200	ug/l	---	250	200	ug/l	---	ND	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	18600	200	ug/l	---	3040	200	ug/l	---	ND	200	ug/l	---
	Sodium - Dissolved	7440-23-5	18700	200	ug/l	---	3030	200	ug/l	---	ND	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	1.4	4.0	ug/l	J	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	12.8	16.0	ug/l	J	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	9.67	2.40	mg/l	---	2.54	0.12	mg/l	---	0.21	0.12	mg/l	---
	Sulfate	14808-79-8	4.46	0.60	mg/l	---	3.48	0.60	mg/l	---	ND	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	28.1	5.0	mg/l	---	31.2	5.0	mg/l	---	ND	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	28.1	5.0	mg/l	---	31.2	5.0	mg/l	---	ND	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	TB-04-081916				SW-11-081916				SW-PAB-00-081916			
		Lab Sample ID:	46011895118				4601189512				4601189513			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
3-Phenylbut-1-ene - TIC	934-10-1												
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	8.4	5.0	ug/l	---	ND	5.0	ug/l	---	4.6	5.0	ug/l	UB
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Benzene, 1,2,3,4-tetramethyl- - TIC	488-23-3												
Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7												
Benzene, 1,2,3-trimethyl- - TIC	526-73-8												
Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2												
Benzene, 1,2,4-trimethyl- - TIC	95-63-6												
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2												
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Naphthalene - TIC	91-20-3												
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	TB-04-081916				SW-11-081916				SW-PAB-00-081916			
		Lab Sample ID:	46011895118				4601189512				4601189513			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4					ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3					ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1					ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2					ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4					ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2					ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2					ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9					ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5					ND	20	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2					ND	2.0	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2					ND	2.0	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7					ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8					ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6					ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7					ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitroaniline	88-74-4					ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5					ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1					ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2					ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1					ND	20	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3					ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7					ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8					ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3					ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5					ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6					ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7					ND	20	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9					ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8					ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2					ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7					ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9					ND	2.0	ug/l	---	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7					ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2					ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1					ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7					ND	2.0	ug/l	---	ND	2.1	ug/l	---
	Butyl benzyl phthalate	85-68-7					ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2					ND	10	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8					ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9					ND	2.0	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2					ND	10	ug/l	---	ND	10	ug/l	---
	Di-n-octyl phthalate	117-84-0					ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9					ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2					ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3					ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0					ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7					ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4					ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1					ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6					ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3					ND	10	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8					ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2					ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0					ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3					ND	0.050	ug/l	UJ	ND	0.052	ug/l	UJ
	Benzo[a]pyrene	50-32-8					ND	0.050	ug/l	UJ	ND	0.052	ug/l	UJ
	Benzo[b]fluoranthene	205-99-2					ND	0.050	ug/l	UJ	ND	0.052	ug/l	UJ
	Bis(2-chloroethyl)ether	111-44-4					ND	0.020	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3					ND	0.050	ug/l	UJ	ND	0.052	ug/l	UJ
	Hexachlorobenzene	118-74-1					ND	0.020	ug/l	UJ	ND	0.021	ug/l	UJ
	Indeno[1,2,3-cd]pyrene	193-39-5					ND	0.050	ug/l	UJ	ND	0.052	ug/l	UJ
	Pentachlorophenol	87-86-5					ND	0.20	ug/l	---	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	TB-04-081916				SW-11-081916				SW-PAB-00-081916			
		Lab Sample ID:	46011895118				4601189512				4601189513			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3					ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5					14.0	40.0	ug/l	J	27.6	40.0	ug/l	J
	Aluminum - Dissolved	7429-90-5					16.8	40.0	ug/l	J	ND	40.0	ug/l	---
	Antimony	7440-36-0					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3					10.3	4.0	ug/l	---	11.3	4.0	ug/l	---
	Barium - Dissolved	7440-39-3					9.6	4.0	ug/l	---	10.6	4.0	ug/l	---
	Beryllium	7440-41-7					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2					11500	200	ug/l	---	12600	200	ug/l	---
	Calcium - Dissolved	7440-70-2					11300	200	ug/l	---	12300	200	ug/l	---
	Chromium	7440-47-3					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6					422	120	ug/l	---	78.7	120	ug/l	J
	Iron - Dissolved	7439-89-6					242	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1					ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1					ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4					3310	200	ug/l	---	3710	200	ug/l	---
	Magnesium - Dissolved	7439-95-4					3400	200	ug/l	---	3770	200	ug/l	---
	Manganese	7439-96-5					128	8.0	ug/l	---	42.5	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5					84.2	8.0	ug/l	---	14.9	8.0	ug/l	---
	Nickel	7440-02-0					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7					630	200	ug/l	---	671	200	ug/l	---
	Potassium - Dissolved	7440-09-7					598	200	ug/l	---	662	200	ug/l	---
	Selenium	7782-49-2					ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2					ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5					4420	200	ug/l	---	4900	200	ug/l	---
	Sodium - Dissolved	7440-23-5					4250	200	ug/l	---	4860	200	ug/l	---
	Thallium	7440-28-0					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6					ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6					ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6					ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6					ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5					ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6					2.00	0.12	mg/l	---	1.69	0.12	mg/l	---
	Sulfate	14808-79-8					5.68	0.60	mg/l	---	6.39	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506					40.2	5.0	mg/l	---	40.2	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508					40.2	5.0	mg/l	---	40.2	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SR3-Pond-081916				SR3-SEEP-1-081916				SR3-SEEP-2-081916			
		Lab Sample ID:	4601189514				4601189515				4601189516			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
3-Phenylbut-1-ene - TIC	934-10-1												
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	5.5	5.0	ug/l	B	5.3	5.0	ug/l	B	5.9	5.0	ug/l	B
Benzene	71-43-2	ND	1.0	ug/l	---	0.38	1.0	ug/l	J	0.61	1.0	ug/l	J
Benzene, 1,2,3,4-tetramethyl- - TIC	488-23-3												
Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7												
Benzene, 1,2,3-trimethyl- - TIC	526-73-8												
Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2												
Benzene, 1,2,4-trimethyl- - TIC	95-63-6												
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2												
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	2.5	1.0	ug/l	---	4.1	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Naphthalene - TIC	91-20-3												
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	0.36	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SR3-Pond-081916				SR3-SEEP-1-081916				SR3-SEEP-2-081916			
		Lab Sample ID:	4601189514				4601189515				4601189516			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	1.5	2.1	ug/l	J	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2	1.3	10	ug/l	J	ND	10	ug/l	---	ND	10	ug/l	---
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.21	ug/l	---	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SR3-Pond-081916				SR3-SEEP-1-081916				SR3-SEEP-2-081916			
		Lab Sample ID:	4601189514				4601189515				4601189516			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	ND	40.0	ug/l	---	521	40.0	ug/l	---	31.3	40.0	ug/l	J
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	ND	2.0	ug/l	---	1.4	2.0	ug/l	J	0.80	2.0	ug/l	J
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	116	4.0	ug/l	---	327	4.0	ug/l	---	264	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	94.1	4.0	ug/l	---	214	4.0	ug/l	---	215	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	28700	200	ug/l	---	27300	200	ug/l	---	26800	200	ug/l	---
	Calcium - Dissolved	7440-70-2	29300	200	ug/l	---	27600	200	ug/l	---	27700	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	2.3	4.0	ug/l	J	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	2.1	4.0	ug/l	J	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	ND	4.0	ug/l	---	5.4	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	1350	120	ug/l	---	48200	120	ug/l	---	35600	120	ug/l	---
	Iron - Dissolved	7439-89-6	ND	120	ug/l	---	72.1	120	ug/l	J	119	120	ug/l	J
	Lead	7439-92-1	ND	1.2	ug/l	---	17.0	1.2	ug/l	---	0.90	1.2	ug/l	J
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	4780	200	ug/l	---	4380	200	ug/l	---	4130	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	4760	200	ug/l	---	4190	200	ug/l	---	4190	200	ug/l	---
	Manganese	7439-96-5	577	8.0	ug/l	---	1030	8.0	ug/l	---	890	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	4.1	8.0	ug/l	J	877	8.0	ug/l	---	857	8.0	ug/l	---
	Nickel	7440-02-0	ND	4.0	ug/l	---	4.5	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	1910	200	ug/l	---	1970	200	ug/l	---	1660	200	ug/l	---
	Potassium - Dissolved	7440-09-7	1880	200	ug/l	---	1740	200	ug/l	---	1720	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	4310	200	ug/l	---	3900	200	ug/l	---	3860	200	ug/l	---
	Sodium - Dissolved	7440-23-5	5970	200	ug/l	J	3940	200	ug/l	---	3920	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	3.3	4.0	ug/l	J	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	36.7	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	0.0020	0.010	mg/l	J	ND	0.010	mg/l	---	0.0020	0.010	mg/l	J
	OSW-9056A													
	Chloride	16887-00-6	2.09	0.12	mg/l	---	2.91	0.60	mg/l	---	2.21	0.24	mg/l	---
	Sulfate	14808-79-8	0.83	0.60	mg/l	---	0.98	0.60	mg/l	---	1.0	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	92.5	5.0	mg/l	---	84.4	5.0	mg/l	---	82.4	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	92.5	5.0	mg/l	---	84.4	5.0	mg/l	---	82.4	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SW-PAB-01-081916				SW-PAB-01A-081916				SW-MRB-00-081916			
		Lab Sample ID:	4601189517				4601189518				4601189519			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
3-Phenylbut-1-ene - TIC	934-10-1												
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	5.1	5.0	ug/l	B	5.8	5.0	ug/l	B	ND	5.0	ug/l	---
Benzene	71-43-2	0.12	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Benzene, 1,2,3,4-tetramethyl- - TIC	488-23-3												
Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7												
Benzene, 1,2,3-trimethyl- - TIC	526-73-8												
Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2												
Benzene, 1,2,4-trimethyl- - TIC	95-63-6												
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2												
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	1.5	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	0.38	1.0	ug/l	J	0.53	1.0	ug/l	J	ND	1.0	ug/l	---
Naphthalene - TIC	91-20-3												
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SW-PAB-01-081916				SW-PAB-01A-081916				SW-MRB-00-081916			
		Lab Sample ID:	4601189517				4601189518				4601189519			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	1.4	2.1	ug/l	J	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2	0.89	10	ug/l	J	ND	10	ug/l	---	ND	10	ug/l	---
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.21	ug/l	---	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

			Sample Name:	SW-PAB-01-081916				SW-PAB-01A-081916				SW-MRB-00-081916			
			Lab Sample ID:	4601189517				4601189518				4601189519			
			Sample Date:	8/19/2016				8/19/2016				8/19/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	38.0	40.0	ug/l	J	ND	40.0	ug/l	---	73.8	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	25.7	40.0	ug/l	J
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	1.1	2.0	ug/l	J	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	133	4.0	ug/l	---	70.2	4.0	ug/l	---	8.9	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	110	4.0	ug/l	---	63.8	4.0	ug/l	---	8.0	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	16800	200	ug/l	---	26500	200	ug/l	---	4040	200	ug/l	---
	Calcium - Dissolved	7440-70-2	17300	200	ug/l	---	27300	200	ug/l	---	4140	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	1.9	4.0	ug/l	J
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	31100	120	ug/l	---	3870	120	ug/l	---	323	120	ug/l	---
	Iron - Dissolved	7439-89-6	ND	120	ug/l	---	ND	120	ug/l	---	76.2	120	ug/l	J
	Lead	7439-92-1	0.66	1.2	ug/l	J	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	3450	200	ug/l	---	5020	200	ug/l	---	1690	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	3540	200	ug/l	---	5060	200	ug/l	---	1700	200	ug/l	---
	Manganese	7439-96-5	678	8.0	ug/l	---	1310	8.0	ug/l	---	25.9	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	621	8.0	ug/l	---	1240	8.0	ug/l	---	3.7	8.0	ug/l	J
	Nickel	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	986	200	ug/l	---	1690	200	ug/l	---	506	200	ug/l	---
	Potassium - Dissolved	7440-09-7	1020	200	ug/l	---	1710	200	ug/l	---	529	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	3630	200	ug/l	---	4180	200	ug/l	---	2670	200	ug/l	---
	Sodium - Dissolved	7440-23-5	3710	200	ug/l	---	4250	200	ug/l	---	2620	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	1.4	4.0	ug/l	J	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	1.83	0.24	mg/l	---	2.54	0.12	mg/l	---	1.87	0.12	mg/l	---
	Sulfate	14808-79-8	1.25	0.60	mg/l	---	1.36	0.60	mg/l	---	5.67	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	56.3	5.0	mg/l	---	84.4	5.0	mg/l	---	15.1	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	56.3	5.0	mg/l	---	84.4	5.0	mg/l	---	15.1	5.0	mg/l	---

APPENDIX 4

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SC-1-081916				SW-NOB-02-081916				SW-PAB-04-081916				SW-SP-01-081916				SW-03-081916			
		Lab Sample ID:	4601189511				46011895110				46011895111				46011895112				46011895113			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016				8/19/2016				8/19/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC																						
	OSW-8260C																					
	3-Phenylbut-1-ene - TIC	934-10-1	6.4	---	ug/l	NJ																
	Acetone	67-64-1					6.6	5.0	ug/l	B	8.2	5.0	ug/l	B	9.4	5.0	ug/l	B				
	Benzene, 1,2,3,4-tetramethyl- - TIC	488-23-3	6.2	---	ug/l	NJ																
	Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7	11	---	ug/l	NJ																
	Benzene, 1,2,3-trimethyl- - TIC	526-73-8	6.6	---	ug/l	NJ																
	Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2	7.0	---	ug/l	NJ																
	Benzene, 1,2,4-trimethyl- - TIC	95-63-6	8.3	---	ug/l	NJ																
	Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2	8.8	---	ug/l	NJ																
	Naphthalene - TIC	91-20-3	8.8	---	ug/l	NJ																
GC/MS SVOC																						
	OSW-8270DSIM																					
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Metals																						
	OSW-6020A																					
	Sodium - Dissolved	7440-23-5																				

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SW-04-081916				SW-MRB-03-081916				SW-MRB-02-081916				FB-03-081916				SW-11-081916			
		Lab Sample ID:	46011895114				46011895115				46011895116				46011895117				4601189512			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016				8/19/2016				8/19/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC																						
	OSW-8260C																					
	3-Phenylbut-1-ene - TIC	934-10-1																				
	Acetone	67-64-1													6.3	5.0	ug/l	B				
	Benzene, 1,2,3,4-tetramethyl- - TIC	488-23-3																				
	Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7																				
	Benzene, 1,2,3-trimethyl- - TIC	526-73-8																				
	Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2																				
	Benzene, 1,2,4-trimethyl- - TIC	95-63-6																				
	Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2																				
	Naphthalene - TIC	91-20-3																				
GC/MS SVOC																						
	OSW-8270DSIM																					
	Benzo[a]anthracene	56-55-3	ND	0.050	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.050	ug/l	UJ
	Benzo[a]pyrene	50-32-8	ND	0.050	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.050	ug/l	UJ
	Benzo[b]fluoranthene	205-99-2	ND	0.050	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.050	ug/l	UJ
	Dibenz(a,h)anthracene	53-70-3	ND	0.050	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.050	ug/l	UJ
	Hexachlorobenzene	118-74-1	ND	0.020	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.020	ug/l	UJ
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.050	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.050	ug/l	UJ
Metals																						
	OSW-6020A																					
	Sodium - Dissolved	7440-23-5																				

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SW-PAB-00-081916				SR3-Pond-081916				SR3-SEEP-1-081916				SR3-SEEP-2-081916				SW-PAB-01-081916			
		Lab Sample ID:	4601189513				4601189514				4601189515				4601189516				4601189517			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016				8/19/2016				8/19/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC																						
OSW-8260C																						
3-Phenylbut-1-ene - TIC	934-10-1																					
Acetone	67-64-1		4.6	5.0	ug/l	UB	5.5	5.0	ug/l	B	5.3	5.0	ug/l	B	5.9	5.0	ug/l	B	5.1	5.0	ug/l	B
Benzene, 1,2,3,4-tetramethyl- - TIC	488-23-3																					
Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7																					
Benzene, 1,2,3-trimethyl- - TIC	526-73-8																					
Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2																					
Benzene, 1,2,4-trimethyl- - TIC	95-63-6																					
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2																					
Naphthalene - TIC	91-20-3																					
GC/MS SVOC																						
OSW-8270DSIM																						
Benzo[a]anthracene	56-55-3		ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Benzo[a]pyrene	50-32-8		ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Benzo[b]fluoranthene	205-99-2		ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3		ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Hexachlorobenzene	118-74-1		ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
Indeno[1,2,3-cd]pyrene	193-39-5		ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Metals																						
OSW-6020A																						
Sodium - Dissolved	7440-23-5						5970	200	ug/l	J												

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 118951-1

		Sample Name:	SW-PAB-01A-081916				SW-MRB-00-081916			
		Lab Sample ID:	4601189518				4601189519			
		Sample Date:	8/19/2016				8/19/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC									
OSW-8260C									
3-Phenylbut-1-ene - TIC	934-10-1								
Acetone	67-64-1	5.8	5.0	ug/l	B				
Benzene, 1,2,3,4-tetramethyl- - TIC	488-23-3								
Benzene, 1,2,3,5-tetramethyl- - TIC	527-53-7								
Benzene, 1,2,3-trimethyl- - TIC	526-73-8								
Benzene, 1,2,4,5-tetramethyl- - TIC	95-93-2								
Benzene, 1,2,4-trimethyl- - TIC	95-63-6								
Benzene, 1-ethyl-2,3-dimethyl- - TIC	933-98-2								
Naphthalene - TIC	91-20-3								
GC/MS SVOC									
OSW-8270DSIM									
Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Hexachlorobenzene	118-74-1	ND	0.021	ug/l	UJ	ND	0.021	ug/l	UJ
Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	UJ	ND	0.052	ug/l	UJ
Metals									
OSW-6020A									
Sodium - Dissolved	7440-23-5								

APPENDIX 5

September 05, 2016

Tim Roeper
Cornerstone EG
100 Crystal Run Road
Suite 101
Middletown, NY 10941

CADENA project ID: E203361
Project: Ford Ringwood Mines Project
Project number:
Client project scope reference: Sample COC only was used to define project analytical requirements.
Laboratory: TestAmerica - Edison
Laboratory submittal: 118951-1
Sample date: 2016-08-19
Report received by CADENA: 2016-09-02
Initial Data Verification completed by CADENA: 2016-09-04

The following minor QC exceptions or missing information were noted:

TBK - GCMS VOC TRIP blanks had detections above the RL for the following analytes: ACETONE. The following client sample results should be considered to be non-detect at the RL and qualified with UB flags: ACETONE - sample -003 the following client sample results should be considered to be non-detect at the concentration reported and qualified with B flags: ACETONE - sample -004, -005, -006, -007, -008, -010, -011, -012, -017. NOTE: Sample dilution factors are not included when assigning qualification based on trip blank detections.

LCS - GCMS SVOC-SIM QC batch 386536 LCS recoveries were outliers biased low for the following analytes: BENZO(A)ANTHRACENE, BENZO(A)PYRENE, BENZO(B)FLUORANTHENE, DIBENZO(AH)ANTHRACENE, HEXACHLOROBENZENE, INDENO(123-CD)PYRENE. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: ALL sample results for BENZO(A)ANTHRACENE, BENZO(A)PYRENE, BENZO(B)FLUORANTHENE, DIBENZO(AH)ANTHRACENE, HEXACHLOROBENZENE, INDENO(123-CD)PYRENE .

MSD - SULFATE sample -006 MS recovery outliers (no MSD in batch) were outliers with the recovery biased low. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

TIC - GCMS VOC Tentatively Identified Compounds (TIC's) detected results should be considered to be estimated and qualified with NJ flags.

GCMS VOC sample -004 MS/MSD recoveries were outliers biased high for the following analytes: CHLOROETHANE. Associated client sample results were non-detect so qualification was not required based on these high bias QC outliers.

GCMS SVOC QC batch 387628, GCMS VOC QC batch 386590, 386348 CCV response outliers as noted in the laboratory submittal case narrative were not used to qualify client sample results as part of this level 2 data package verification review.

GC VOC sample -004 MS or MSD recoveries but not both or RPD only were outliers for ETHYLENE DIBROMIDE so client sample results were not qualified based on these QC outliers alone.

GCMS SVOC sample -004 MS or MSD recoveries but not both or RPD only were outliers for 2-METHYLPHENOL, PYRENE so client sample results were not qualified based on these QC outliers alone.

PCB sample -004 MS or MSD recoveries but not both or RPD only were outliers for AROCLOR 1260 so client sample results were not qualified based on these QC outliers alone.

GCMS SVOC sample -003, -004, -005, -006, -007 surrogate recovery outliers (1 out of 3 acid fraction surrogates only) did not result in qualification of client sample data.

METALS sample -004 MS and or MSD recovery outliers were not used to qualify results for TOTAL CALCIUM, DISSOLVED SODIUM due to high levels of these target analytes in the original sample relative to the spike concentration (4X rule).

METALS QC batch 387306, 387370 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

FLUORIDE batch 386769 LCS or LCSD recoveries but not both or RPD only were outliers so were not used to qualify client sample results based on these QC outliers alone.

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

17 Water sample(s) were analyzed for GCMS VOC, GCMS SVOC, GC Other, Metals, General Chemistry and MISC parameter(s). 1 Trip blank was analyzed for GC VOC, GCMS VOC parameters.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, LCS/LCD RPD, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Qualifiers added during verification have been added to the electronic data which is available for download from the CADENA CLMS. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory analytical report access the CADENA CLMS at http://clms.cadenaco.com/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
J-	The result is an estimated quantity, but the result may be biased low.
JB	NON-DETECT AT THE CONCENTRATION REPORTED AND ESTIMATED
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
JUB	NON-DETECT AT THE REPORTING LIMIT AND ESTIMATED
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

460-118951 Chain of Custody

CHAIN OF _ _ ST

Page 1 of 2

Name (for report and invoice) Tim Roeper	Samplers Name (Printed) Robert Lawfordey	Site/Project Identification Ford - Ringwood
Company Cornerstone Environmental Group	P. O. # 140802-015	State (Location of site): NJ: X NY: Other:
		Regulatory Program: DKQP:
Address 100 Crystal Run Rd, Suite 101	Analysis Turnaround Time: Standard X	
City Middletown State NY 10941	Rush Charges Authorized For: 2 Week 1 Week Other	
Phone 845 695 0200 Fax		

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + 15 TICs 8260 B	TCL SVOC + 15 TICs 8270 B	TAL Metals - Total & Filtered - 6010B/7000	PCB	Alkalinity, Total as $CaCO_3$ - 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide				Sample Numbers
SC-1-081916	8/19/16	11:35	GW	13	✓	✓	✓	✓	✓	✓	✓	✓				-1
SW-1-081916	8/19/16	08:25	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-2
SW-PAB-00-081916	8/19/16	07:55	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-3
SR3-Pond-081916	8/19/16	10:35	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-4
SR3-Pond-081916 MS	8/19/16	10:35	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-4
SR3-Pond-081916 MSD	8/19/16	10:35	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-4
SR3-SEEP-1-081916	8/19/16	11:40	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-5
SR3-SEEP-2-081916	8/19/16	12:10	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-6
SW-PAB-01-081916	8/19/16	13:15	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-7
SW-PAB-01A-081916	8/19/16	13:40	SW	13	✓	✓	✓	✓	✓	✓	✓	✓				-8
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH Soil:																
6 = Other _____, 7 = Other _____ Water:																

LAB USE ONLY
Project No:
Job No: 118951

Special Instructions Do not report 1,4 Dioxane for VOCs + SVOCs

Water Metals Filtered (Yes/No)? No

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/19/16 1515	1) Luisa Smith	TA
Relinquished by 2) Luisa Smith	Company TA	Date / Time 8/19/16 1800	Received by 2) Kelly Mundt	Company TA 8/19/16 1800
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578) NOCs #7 1.5, 1.2, 1.3, 1.0, 1.4, 1.2, 1.0

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CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice)	Samplers Name (Printed)	Site/Project Identification
Tim Roepe	Robert Lostebery	Ford - Ringwood
Company: Cornerstone Environmental Group	P. O. # 140802-015	State (Location of site): NJ: X NY: Other:
		Regulatory Program: DKQP:
Address: 100 Crystal Run Rd. Suite 101	Analysis Turnaround Time: Standard X; Rush Charges Authorized For: 2 Week, 1 Week, Other	LAB USE ONLY Project No:
City: Middletown State: NY 10941		Lab No: 118951
Phone: 845-695-0200 Fax:		Sample Numbers

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOCs + 15 TICs 8260B	TCL SVOCs + 15 TICs 8270B	TAL Metals - Total & Filtered 6010B/7470A	PCBs	Alkalinity, Total as CaCO3 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	Sample Numbers
SW-MRB-00-081916	8/19/16	13:05	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-9
SW-NOB-02-081916	8/19/16	10:25	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-10
SW-PAB-04-081916	8/19/16	10:40	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-11
SW-SP-01-081916	8/19/16	11:05	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-12
SW-03-081916	8/19/16	12:40	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-13
SW-04-081916	8/19/16	12:05	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-14
SW-MRB-03-081916	8/19/16	13:40	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-15
SW-MRB-02-081916	8/19/16	13:55	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-16
FB-03-081916	8/19/16	14:30	BW	13	✓	✓	✓	✓	✓	✓	✓	✓	-17
TB-04-081916	8/19/16	—	BW	4	✓								-18

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____ Soil: Water:

Special Instructions Do not report 1,4 Dioxane for VOCs + SVOCs Water Metals Filtered (Yes/No)? No

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/19/16 1515	1) Tiusha Amin	TA
Relinquished by 2) Tiusha Amin	Company TA	Date / Time 8/19/16 1800	Received by 2) Kelly Hunt	Company TA 8/19/16 1800
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132), Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0715)

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
SOW available?				**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**
Scope validation criteria referenced				**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**
Lab certifications required				**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**
Lab single blind PE samples completed				**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**
SAMPLING ISSUES				NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS															
holding times				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
preservation				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
temperature of cooler - degrees C				**1.0 to 1.5**	**1.0 to 1.5**	**1.0 to 1.5**	**1.0 to 1.5**	**1.0 to 1.5**	**1.0 to 1.5**	**1.0 to 1.5**	**1.0 to 1.5**	**1.0 to 1.5**	**1.0 to 1.5**	**1.0 to 1.5**	**1.0 to 1.5**
COC discrepancies				**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**
sample integrity (containers, amounts)				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
ANALYTICAL/PREP GENERAL				**8260C**	**8260C SIM**	**8270D**	**SVOC-SIM**	**PCB**	**METALS-D**	**METALS -T**	**MERCURY-D**	**MERCURY-T**	**CYANIDE**	**CL/SO4**	**ALK**
prep batch		LAB		**NA**	**NA**	**386536**	**386536**	**386623**	**387440 387460**	**387091 387306 387370**	**387416 387480 387417 387639**	**386757 386760**	**387410**	**NA**	**NA**
prep date		LAB		**NA**	**NA**	**24-Aug**	**24-Aug**	**24-Aug**	**8/29/2016**	**8/26/2016 8/28 8/29**	**8/29/2016 8/30**	**25-Aug**	**29-Aug**	**NA**	**NA**
analytical batch		LAB		**386348 386590**	**386650 386835 387501**	**387628**	**387918 387794**	**386701**	**388223 388451**	**387734 388143 388293 386813 387394**	**387413 387486 387632 387711**	**386813 386756**	**387726**	**386598 386769**	**388410**
analytical date		LAB		**8/23/2016 8/25**	**8/25/2016 8/26 8/29**	**30-Aug**	**31-Aug**	**25-Aug**	**9/1 9/2**	**8/31/2016 9/1 9/2 8/28**	**8/29/2016 8/30**	**25-Aug**	**30-Aug**	**8/24/2016 8/26**	**2-Sep**
instrument ID		LAB		**CVOAMS5**	**CVOAMS11**	**CBNAMS6**	**CBNAMS9 CBNAMS4**	**CPESTGC9**	**ICPMS2 ICPMS1**	**ICPMS3 ICPMS2**	**LEEMAN6**	**LEEMAN6**	**LACHAT3**	**IC A**	**NA**
Instrument Tune		METHOD	tune	**OK**	**OK**	**OK**	**OK**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**
Instrument Performance Checks		METHOD	tailing, degradation	**NA**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
ICAL (Initial Calibration Curve)	CURVE ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	**56415**	**57303**	**57491 57159**	**57611 57255**	**57495 57496**	**OK**	**OK**	**OK**	**OK**	**OK**	**57277**	**NA**
ICAL (Initial Calibration Curve)	CURVE DATE	METHOD		**22-Jun**	**19-Aug**	**8/9/2016 8/23**	**8/30/2016 8/15**	**23-Aug**	**OK**	**OK**	**OK**	**OK**	**OK**	**17-Aug**	**NA**
ICV (Initial Calibration Verification)		METHOD	max 30%	**OK**	**OK**	**NO RAW DATA**	**NO RAW DATA**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**385365**	**NA**

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
CCV (Continuing Calibration Verification)		METHOD	max 20%/50%	**386590/386348-TCFM - HIGH**	**OK**	**387628-HIGH-11BP, PCP**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Target Compound Lists		SCOPE/COC		**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Reporting Limits (RL/PQL/LOQ) compliant		SCOPE	1.0 ug/l	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Blanks-method/calibration	method blank	NFG		**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
LCS (Laboratory Control Spikes)		lab control limits	by method	**OK**	**OK**	**OK**	**386536-LOW-BAA,BAP,BBF,DAHA,HCB, INDENO123CDP.**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
MS/MSD (Matrix Spikes)		lab control limits	by method	**samp-004 - high-MS/MSD-CE**	**SAMP-04-RPD-EDB**	**samp-04-LOW MSD-2MP, RPD-pyrene**	**NONE**	**SAMP-04-HIGH-MSD-1260**	**SAMP-04-4X-BA,NA,MG,CA**	**SAMP-04-4x-CA**	**OK**	**OK**	**OK**	**SAMP-06-LOW**	**NA**
Sample duplicates		lab control limits	NA	**NA**	**NA**	**NA**	**NA**	**NA**	**SAMP-04-NA**	**OK**	**OK**	**OK**	**NA**	**OK**	**OK**
Internal standard reponses/RRT		METHOD	50-200%	**OK**	**OK**	**OK**	**OK**	**1 INTERNAL STANDARD - ALL OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Surrogate recoveries		lab control limits	SVOC BN surrogates	**OK**	**OK**	**TBP high - -3, -4, -5, -6, -7**	**OK**	**P flag for surrs sampl - 1, -6, -7**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Qualitative criteria met		METHOD		**OK**	**OK**	**OK**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
TICS (Tentatively Identified Compounds)		METHOD		**YES**	**NO**	**NO**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
TIC blanks		NFG		**NA**	**NA**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Trip blanks		NFG		**ACETONE**	**ND**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Field blanks		NFG		**OK**	**OK**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Field duplicates		SCOPE		**NA**	**NA**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Post Digestion Spikes (PDS)		METHOD		**NA**	**NA**	**NA**	**NA**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**
Serial Dilution (SD)		METHOD		**NA**	**NA**	**NA**	**NA**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**
CRQL checks performed?		SCOPE		**NA**	**NA**	**NA**	**NA**	**NA**	**OK**	**OK**	**OK**	**OK**	**NA**	**NA**	**NA**
E flagging required		LAB		**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
GENERAL QC TRACKING															
Control Limits		SCOPE	see above	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**
Certificates of Analysis for primary standards		VENDOR	required for NIST trace	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**
Working/Intermediate standard prep calculations		LAB	prep log	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Prep technique		not specified	VARIES	**5030**	**5030**	**3510C**	**3510C**	**3510C**	**3010A**	**3010A**	**NA**	**NA**	**NA**	**NA**	**NA**
Prep sample volumes/mass		not specified	VARIES	**5**	**5**	**250**	**250**	**250**	**50 10**	**50 10**	**50 30**	**30**	**5**	**NA**	**50**
OVERALL							**NO**								
Data Reportable?				**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**
Comments (other)						**LVE/HVI - 250ML/2ML-5UL**	**LVE/HVI - 250ML/2ML-5UL**	**LVE - 250 ML**							

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ANALYTICAL DATA VALIDATION REPORT
Ringwood Mines/Landfill
Ford Motor Company
PROJECT 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED August 22, 2016
DATA PACKAGE RECEIVED September 9, 2016
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LISTS OF APPNEDICES
(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by TestAmerica-Edison Laboratory the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	GCMS VOC	GCMS VOC SIM	OSW-SVOC	GCMS SVOC SIM	OSW-PCB	Dissolved Metals by ICP MS	Total Metals by ICP MS	Mercury (Manual Cold Vapor) (D)	Mercury (Manual Cold Vapor) (T)	TOTAL CYANIDE	SULFATE CHLORIDE by IC	Alkalinity
4601190251	PMP-Pond-082216	8/22/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601190252	Dup-03-082216	8/22/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601190253	SW-PAB-02-082216	8/22/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601190254	SW-PAB-03-082216	8/22/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601190255	SW-PMB-02-082216	8/22/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601190256	SW-MRB-01-082216	8/22/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601190257	SW-NOB-01-082216	8/22/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601190258	RW-12(55-65)-082216	8/22/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601190259	RW-2(452-462)-082216	8/22/2016	x	x	x	x	x	x	x	x	x	x	x	x
46011902510	RW-2(279-289)-082216	8/22/2016	x	x	x	x	x	x	x	x	x	x	x	x
46011902511	CMP-160-082216	8/22/2016	x	x	x	x	x	x	x	x	x	x	x	x
46011902512	CMP-100-082216	8/22/2016	x	x	x	x	x	x	x	x	x	x	x	x
46011902513	CMP-275-082216	8/22/2016	x	x	x	x	x	x	x	x	x	x	x	x
46011902514	CMP-50-082216	8/22/2016	x	x	x	x	x	x	x	x	x	x	x	x
46011902515	TB-05-082216	8/22/2016	x	x										
46011902516	SW-PMB-01-082316	8/23/2016	x	x	x	x	x	x	x	x	x	x	x	x

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	***Reference Method***	***Analyte Listing***
GCMS VOC Organics	OSW-8260C	Target Compound List
GCMS VOC Organics-SIM	OSW-8260C-SIM	1,2-Dibromo-3-chloropropane and EDB
Semi-Volatile Organics	OSW-8270D	Target Compound List
Semi-Volatile Organics	OSW-8270D/SIM	PAH, PCP, HCB, B2CEE
GC ECD Semi-Volatiles	OSW-8082A	PCB's
Metals by ICP/MS	OSW-6020A	Target Analyte List(total,dissolved)
Mercury by Cold Vapor	OSW-7470A	Mercury(total, dissolved)
Total Cyanide	OSW-9012B	Total Cyanide
Ion Chromatography	OSW-9056A	Chloride, Sulfate
Alkalinity	APHA-2320B	Alkalinity, Bicarbonate Alkalinity

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

Additional data qualifications based on review of the level 4 data package using laboratory criteria provided if required are noted below. Qualifications that would be required based on comparison to NFG criteria are noted where applicable. These qualifications would be added to the database and associated summary tables in the appendices if applicable.

GCMS VOC

Continuing Calibration Verification (CCV)386589 response was outside of lab and method criteria biased low for BROMOFORM. All client sample BROMOFORM results should be considered to be estimated and qualified with UJ flags (all associated results were non-detect).

ION CHROMATOGRAPHY

Sulfate and Chloride MS/MSD recoveries were outliers with the CHLORIDE recoveries biased high and SULFATE recoveries biased low for client sample -009. Samples and MS/MSD were analyzed at dilutions but all results were above RL and considered to still be statistically reliable. Client sample -009 results for CHLORIDE and SULFATE should be considered to be estimated and qualified with J flags.

The following observations **DID NOT** result in qualification but were noted during the validation review:

ALL TEST DATA

Certificates of analysis for standards and all working/primary standard concentrations that are required to verify calibration standard concentrations and spike levels were not available in the laboratory data package for review.

GC/MS SVOC and GCMS SVOC-SIM

Initial Calibration Verification (ICV) raw data was not available for reconstruction/re-calculation of ICV results.

GC/MS SVOC-SIM

General note that calibration curves using LINEAR regression algorithms typically show reduced accuracy near the reporting limit. In the case of PENTACHLOROPHENOL for this data package the linear regression curve showed poor linearity at levels below the 0.4ug/l concentration sample analyte level. Several sample results were quantitated below that level but have not been qualified based on this calibration curve observation since they are already qualified as estimated due to being detected at levels below the RL.

METALS

SERIAL DILUTION (SD) for sample -008 POTASSIUM was reported on the QC summary form in the level 4 data package as being an outlier. Evaluation of the associated raw data revealed that the dilution factor (5x) was not included for the serial dilution calcualtion so the reported SD result was not correct. The serial dilution result for POTASSIUM was within acceptable method criteria once re-quantified with the dilution factor included so qualification was not required based on this reported outlier.

VERIFICATION SUMMARY

The following qualifications and associated data flags were applied based on the initial level 2 review of this data package.

LCS - GCMS SVOC QC batch 387194 LCS recoveries were outliers biased low for the following analytes: 2-METHYLPHENOL, CAPROLACTAM. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: 2-METHYLPHENOL and CAPROLACTAM - ALL samples.

MBK - GCMS SVOC QC batch 387194 method blanks had detections below the RL for the following analytes: DI-N-BUTYLPHTHALATE. The following client sample results should be considered to be non-detect at the RL and qualified with UB flags: DI-N-BUTYLPHTHALATE - samples ALL.

TBK - GCMS VOC TRIP blanks had detections above the RL for the following analytes: ACETONE. The following client sample results should be considered to be non-detect at the RL and qualified with UB flags: ACETONE - samples -001, -004, -005, -006, -014. The following client sample results should be considered

to be non-detect at the concentration reported and qualified with B flags: ACETONE - samples -002, -003, -007, -008, -009, -010, -011, -012, -013, -016. NOTE: Sample dilution factors are not included when assigning qualification based on trip blank detections.

MSD - CHLORIDE sample -003 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased high. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected.

GCMS VOC QC batch 386589 CCV response outliers as noted in the laboratory submittal case narrative were not used to qualify client sample results as part of this level 2 data package verification review.

GCMS SVOC batch 387194 LCS or LCSD recoveries but not both or RPD only were outliers so for 2,4,6-TRICHLOROPHENOL so were not used to qualify client sample results based on these QC outliers alone.

PCB QC batch 386469, 386833 LCS recoveries were outliers biased high for the following analytes: AROCLOR 1260. Associated client sample results were non-detect so qualification was not required based on these high bias QC outliers.

METALS QC batch 388296, 387370 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

METALS sample -008 MS and or MSD recovery outliers were not used to qualify results for SODIUM, CALCIUM, POTASSIUM due to high levels of these target analytes in the original sample relative to the spike concentration (4X rule).

SULFATE and CHLORIDE sample -009 MS and or MSD recoveries were diluted to below reliably quantifiable levels so were not used to qualify client sample results.

SULFATE sample -003 MS or MSD recoveries but not both or RPD only were outliers so client sample results were not qualified based on these QC outliers alone.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

2.0 VOLATILE ORGANIC COMPOUNDS (VOCs) – METHOD SW846 8260C and SIM ANALYSIS

See Attachments for submittal-specific review summary of QC requirements noted below.
The target analyte list was defined by the client-project as TCL List OLM4.2 for 8260C full scan and as noted in section 1 above for SIM analysis.

2.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) VOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS VOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS VOCs

Initial calibration data for VOCs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS VOCs

Initial calibration data for VOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

2.2 CONTINUING CALIBRATION – GC/MS VOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless otherwise noted in the executive summary noted above and qualified in the data tables. Target analytes associated with CCV compounds outside of method criteria were qualified as estimated with J flags if sample results were non-detect and estimated with UJ flags if CCV bias was low and sample results was non-detect and J flags if sample results were detections. Non-detect results were not qualified if CCV bias was high and sample results were non-detect.

2.3 INTERNAL STANDARDS – GC/MS VOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS VOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS VOCs

A laboratory control sample (LCS) was prepared and analyzed for VOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless otherwise noted in the executive summary and as qualified the QAR and ARS data tables found in the appendices.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS VOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS VOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS VOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS VOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS VOCs

Tentatively Identified Compounds (TIC) searches were associated with each sample analysis and should all be considered to be estimated and qualified with NJ flags when detected.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS VOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D and SIM analysis – GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

3.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

3.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

3.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

3.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

3.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

3.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

3.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) was prepared and analyzed for the target analyte SVOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

3.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

3.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

3.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

3.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

3.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

3.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal..

4.0 POLYCHLORINATED BIPHENYLS (PCBs) – METHOD SW846 8082A

The target analyte list was defined by the client as the standard 7 aroclors.

4.1 CALIBRATION – GAS CHROMATOGRAPH-ECD

4.1.1 TUNING AND MASS CALIBRATION – PCB

Not applicable for this analysis.

4.1.2 INITIAL CALIBRATION – PCB

Initial calibration data for PCBs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

4.1.3 INITIAL CALIBRATION VERIFICATION – PCB

Initial calibration verification (ICV) standards for PCB analyses were reviewed and met criteria specified by the laboratory with no exceptions.

4.2 CONTINUING CALIBRATION – PCBs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary.

4.3 INTERNAL STANDARDS – PCB

Internal standard (IS) data were reviewed and met criteria unless noted otherwise in verification/validation summary. (NOTE: Lab quantitation approach DID use internal standard quantitation for this submittal).

4.4 SURROGATE SPIKE RECOVERIES – PCB

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

4.5 LABORATORY CONTROL SAMPLE ANALYSES - PCB

A laboratory control sample (LCS) was prepared and analyzed for PCBs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

4.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - PCB

The MS/MSD recoveries and RPD’s were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

CADENA does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

4.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - PCB

There were no field duplicate comparisons performed as part of this validation request.

4.8 EXTRACT CLEANUP - PCB

Extract cleanups were performed in accordance with laboratory SOP’s and as noted in level 4 data package prep logs.

4.9 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - PCB

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

4.10 TENTATIVELY IDENTIFIED COMPOUNDS - PCB

Not requested for this analytical procedure.

4.11 BLANKS – METHOD/FIELD/CALIBRATION - PCB

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

5.0 HPLC/IC – METHOD SW846 9056A – CHLORIDE AND SULFATE

5.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

5.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

5.3 CONTINUTING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

5.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

5.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD’s were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

5.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

5.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

5.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

6.0 METALS – ICPMS by Method 6020A TOTAL AND DISSOLVED and Mercury by Method 7470A

The following samples provided in this SDG underwent a Level IV review for either/and metals or mercury analyses:

- Method 6020A: ALL
- Method 7470A: ALL

6.1 ICP/MS TUNING AND MASS CALIBRATION

Instrument tuning data were reviewed. Tuning elements were analyzed. All tuning criteria were met for the analyses, indicating proper optimization of the instrumentation.

6.2 INITIAL CALIBRATION

Initial calibration data for metals and mercury were reviewed and met the criteria for linearity of response without exception.

6.3 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards for metals and mercury analyses were reviewed and met criteria unless otherwise noted in verification/validation summary section of this document.

An initial calibration blank (ICB) was analyzed for metals and mercury analyses. Metals and mercury were reported as non-detect in each ICB analysis unless noted otherwise in verification/validation summary.

6.4 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for metals and mercury analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

6.5 INTERFERENCE CHECK STANDARD

The interference check standard results were reviewed and found to meet criteria.

6.6 INTERNAL STANDARDS

Internal standard (IS) data were reviewed and found to meet criteria unless noted otherwise in verification/validation summary.

6.7 LABORATORY CONTROL SAMPLE ANALYSIS

A laboratory control sample (LCS) was prepared and analyzed for metals and mercury. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

6.8 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE (MS/MSD) ANALYSES

The MS/MSD recoveries and RPD's were either not performed using a client sample or were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

6.9 CONTRACT REQUIRED DETECTION LIMIT STANDARD ANALYSES

Each contract required detection limit (CRDL) standard was analyzed at the proper frequency and were within laboratory control limits unless noted otherwise in verification/validation summary.

6.10 ICP SERIAL DILUTION

Serial dilutions were analyzed at the proper frequency and were either not performed using the client sample or were within laboratory control limits unless noted otherwise in verification/validation summary.

6.11 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

6.12 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

6.13 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

7.0 GENERAL CHEMISTRY- TOTAL AND AMENABLE CYANIDE AND ALKALINITY – METHODS 9012B and 2320B

7.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

7.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

7.3 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

7.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

7.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD’s were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

7.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

7.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

7.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

8.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

8.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

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All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	***Reference Method***	***Matrix***	***Preservation & Storage***	***Holding Times***
Volatile Organics by GCMS	OSW-8260C/SIM	Water	Acidify ph<2 Refrigeration 0-6oC	14 days
Semivolatile Organics by GCMS	OSW-8270D/SIM	Water	Refrigeration 0-6oC	7 days Extraction 40 days Analysis
Polychlorinated Biphenyls by GC/ECD	OSW-8082A	Water	Refrigeration 0-6oC	365 days - Extraction - Analysis
Metals by ICP/ICPMS Spectroscopy	OSW-6010B OSW-6020A	Water	Acidify pH<2 Refrigeration 0-6oC	180 days
Mercury in Aqueous Waste	OSW-7470A	Water	Acidify pH<2 Refrigeration 0-6oC	28 days
Alkalinity	EPA 2320B	Water	Refrigeration 0-6oC	14 days
Chloride and Sulfate	OSW-9056A	Water	Refrigeration 0-6oC	28 days
Total and Amenable Cyanide	OSW-9012B	Water	Test for presence of Sulfide – if unknown collect two samples and treat one with Lead Carbonate. Then adjust sample to pH of greater than or equal to 12with NaOH. Refrigeration at 0-4C –(also may require treatment for aldehydes and chlorine/hypochlorite/sulfite)	14 days if preserved. 24 hours or sooner if unpreserved

8.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

9.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

10.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: TestAmerica-Edison
Laboratory Submittal: 119025-1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS VOC Volatiles	GCMS VOC SIM	OSW-8270D	GCMS SVOC SIM	OSW-8082A	Metals by ICP Mass Spectroscopy(D)	Metals by ICP Mass Spectroscopy	Mercury (Manual Cold Vapor)(D)	Mercury (Manual Cold Vapor)	TOTAL AND AMENABLE CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Anions by IC	Alkalinity Prep
4601190251	PMP-Pond-082216	8/22/2016	8:30:00	X	X	X	X	X	X	X	X	X	X	X	X
46011902510	RW-2(279-289)-082216	8/22/2016	11:05:00	X	X	X	X	X	X	X	X	X	X	X	X
46011902511	CMP-160-082216	8/22/2016	1:20:00	X	X	X	X	X	X	X	X	X	X	X	X
46011902512	CMP-100-082216	8/22/2016	11:40:00	X	X	X	X	X	X	X	X	X	X	X	X
46011902513	CMP-275-082216	8/22/2016	2:50:00	X	X	X	X	X	X	X	X	X	X	X	X
46011902514	CMP-50-082216	8/22/2016	10:30:00	X	X	X	X	X	X	X	X	X	X	X	X
46011902515	TB-05-082216	8/22/2016	12:00:00	X	X										
46011902516	SW-PMB-01-082316	8/23/2016	7:30:00	X	X	X	X	X	X	X	X	X	X	X	X
4601190252	Dup-03-082216	8/22/2016	12:00:00	X	X	X	X	X	X	X	X	X	X	X	X
4601190253	SW-PAB-02-082216	8/22/2016	2:45:00	X	X	X	X	X	X	X	X	X	X	X	X
4601190254	SW-PAB-03-082216	8/22/2016	1:00:00	X	X	X	X	X	X	X	X	X	X	X	X
4601190255	SW-PMB-02-082216	8/22/2016	5:45:00	X	X	X	X	X	X	X	X	X	X	X	X
4601190256	SW-MRB-01-082216	8/22/2016	4:00:00	X	X	X	X	X	X	X	X	X	X	X	X
4601190257	SW-NOB-01-082216	8/22/2016	10:00:00	X	X	X	X	X	X	X	X	X	X	X	X
4601190258	RW-12(55-65)-082216	8/22/2016	4:10:00	X	X	X	X	X	X	X	X	X	X	X	X
4601190259	RW-2(452-462)-082216	8/22/2016	1:00:00	X	X	X	X	X	X	X	X	X	X	X	X

APPENDIX 2

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

Standard Report Cover page
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Sample Summary
Executive Summary detection highlights
Method Summary
Method/Analyst Summary
Analytical Results
Surrogate Summary
Quality Control Results
Data Qualifiers
QC Summary Association
Lab Chronicle
GCMS Volatiles Data - Method 8260C and SIM
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  - Surrogate recoveries (form II)
  - Check Sample recoveries (form III)
  - Matrix spike/Matrix spike duplicate report (form III)
  - Method blank report (form IV)
  - Tuning and mass calibrations (form V)
  - Internal Standard and RT area summary (form VIII)
- Sample Data
  - GCMS VOA Organics Analysis Data Sheet (Form I)
  - Raw integration data from instrument
  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report (Form VII)
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not included with SIM package)
  - FORM I - QC data
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
  - MS and MSD integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Run logs

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

GCMS Semivolatiles Data - Method 8270D and SIM

- QC Summary Data
  - Surrogate recoveries (form II)
  - Check Sample recoveries (form III)
  - Method blank report (form IV)
  - Tuning and mass calibrations (form V) (not applicable for SIM)
  - Internal Standard and RT area summary (form VIII)
- Sample Data
  - GCMS VOA Organics Analysis Data Sheet (Form I)
  - Raw integration data from instrument
  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not applicable for SIM)
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Instrument run logs
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APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

- Polychlorinated Biphenyls Data (PCB)
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    - Surrogate recoveries (form II)
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    - Analytical sequence with RT check (Form VIII)
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  - Sample Data
    - Organics Analysis Data Sheet (Form I)
    - Raw integration data from instrument
    - Chromatogram
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    - Raw integration data from instrument with manual integrations where applicable
    - ICAL chromatograms
    - Continuing Calibration Data (Form VII) with RT Summaries
    - ICV raw integration and chromatograms
    - CCV raw integration data from instrument
    - CCV chromatogram
  - Raw QC Data
    - LCS/LCSD sample data report and integration and chromatograms
    - Method blank integration and chromatograms
  - Miscellaneous Data
    - Sequence table (run log)
    - PCB Batch Worksheet
- HPLC/IC - 9056A ORGFM_28D - Anions, Ion Chromatography - Sulfate and Chloride
  - Raw Data and Data Summaries for:
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    - MS/MSD (form III)
    - METHOD BLANKS (Form IV)
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      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - ICAL (Form VI)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - ICAL (Form VII)
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      - Manual Integration (if applicable)
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      - Raw instrument data and chromatography
    - Analysis Run Logs

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

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  - Inorganic Analysis Data Sheet - Metals Dissolved/Total Recoverable (1A-IN)
  - CCV standard report - mercury and ICPMS (2A-IN)
  - CRQL report - mercury and ICPMS (2B-IN)
  - ICB report - mercury and ICPMS (3-IN)
  - Method blank report (3-IN)
  - Interference check standard A - ICPMS (4A-IN)
  - Interference check standard AB - ICPMS (4A-IN)
  - MS/MSD Sample recovery (5A-IN)
  - PDS Summary (5B-IN)
  - LCS Recovery form (7A-IN)
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  - ICP-MS Serial Dilutions (8-IN)
  - Detection Limits Form (9-IN)
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  - Prep log - mercury and ICPMS (12-IN)
  - Run log - ICPMS and Mercury (13-IN)
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  - ICPMS Internal Standards Relative Intensity Summary (15-IN)
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  - Alkalinity Reagents
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- COC forms
- Cooler Receipt Form, checklist and narrative

APPENDIX 3

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	PMP-Pond-082216				RW-2(279-289)-082216				CMP-160-082216			
		Lab Sample ID:	4601190251				46011902510				46011902511			
		Sample Date:	8/22/2016				8/22/2016				8/22/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	0.39	1.0	ug/l	J	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	0.77	1.0	ug/l	J	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	1.5	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	4.8	5.0	ug/l	UB	13	5.0	ug/l	B	6.4	5.0	ug/l	B
Benzene	71-43-2	ND	1.0	ug/l	---	0.34	1.0	ug/l	J	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	12	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	0.25	1.0	ug/l	J	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.80	1.0	ug/l	J
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	0.42	1.0	ug/l	J	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	0.65	2.0	ug/l	J
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	PMP-Pond-082216				RW-2(279-289)-082216				CMP-160-082216			
		Lab Sample ID:	4601190251				46011902510				46011902511			
		Sample Date:	8/22/2016				8/22/2016				8/22/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC													
OSW-8270D													
1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2,4-Dinitrophenol	51-28-5	ND	20	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
2,4-Dinitrotoluene	121-14-2	ND	2.0	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2,6-Dinitrotoluene	606-20-2	ND	2.0	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4,6-Dinitro-2-methylphenol	534-52-1	ND	20	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
4-Nitrophenol	100-02-7	ND	20	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Atrazine	1912-24-9	ND	2.0	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Bis(2-ethylhexyl) phthalate	117-81-7	1.9	2.0	ug/l	J	1.9	2.1	ug/l	J	1.5	2.1	ug/l	J
Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Caprolactam	105-60-2	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Chrysene	218-01-9	ND	2.0	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
Di-n-butyl phthalate	84-74-2	1.9	10	ug/l	UB	ND	10	ug/l	---	1.5	10	ug/l	UB
Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Naphthalene	91-20-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM													
Benzo[a]anthracene	56-55-3	ND	0.050	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
Benzo[a]pyrene	50-32-8	ND	0.050	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
Benzo[b]fluoranthene	205-99-2	ND	0.050	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
Bis(2-chloroethyl)ether	111-44-4	ND	0.020	ug/l	---	0.033	0.021	ug/l	---	ND	0.021	ug/l	---
Dibenz(a,h)anthracene	53-70-3	ND	0.050	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
Hexachlorobenzene	118-74-1	ND	0.020	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.050	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
Pentachlorophenol	87-86-5	ND	0.20	ug/l	---	ND	0.21	ug/l	---	0.11	0.21	ug/l	J

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	PMP-Pond-082216				RW-2(279-289)-082216				CMP-160-082216			
		Lab Sample ID:	4601190251				46011902510				46011902511			
		Sample Date:	8/22/2016				8/22/2016				8/22/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	20.9	40.0	ug/l	J	163	40.0	ug/l	---	26.4	40.0	ug/l	J
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	172	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	1.0	2.0	ug/l	J	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	0.86	2.0	ug/l	J	ND	2.0	ug/l	---
	Arsenic	7440-38-2	ND	2.0	ug/l	---	1.7	2.0	ug/l	J	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	1.9	2.0	ug/l	J	ND	2.0	ug/l	---
	Barium	7440-39-3	100	4.0	ug/l	---	27.0	4.0	ug/l	---	52.3	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	99.7	4.0	ug/l	---	28.9	4.0	ug/l	---	48.2	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	10.8	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	20000	200	ug/l	---	116000	200	ug/l	---	44900	200	ug/l	---
	Calcium - Dissolved	7440-70-2	20900	200	ug/l	---	122000	200	ug/l	---	47500	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	4.8	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	ND	4.0	ug/l	---	2.2	4.0	ug/l	J	6.5	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	1780	120	ug/l	---	ND	120	ug/l	---	12900	120	ug/l	---
	Iron - Dissolved	7439-89-6	61.3	120	ug/l	J	ND	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1	0.63	1.2	ug/l	J	ND	1.2	ug/l	---	163	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	3320	200	ug/l	---	ND	200	ug/l	---	13600	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	3290	200	ug/l	---	ND	200	ug/l	---	15000	200	ug/l	---
	Manganese	7439-96-5	220	8.0	ug/l	---	ND	8.0	ug/l	---	453	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	143	8.0	ug/l	---	ND	8.0	ug/l	---	396	8.0	ug/l	---
	Nickel	7440-02-0	ND	4.0	ug/l	---	3.3	4.0	ug/l	J	2.2	4.0	ug/l	J
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	2.7	4.0	ug/l	J	1.7	4.0	ug/l	J
	Potassium	7440-09-7	5130	200	ug/l	---	7860	200	ug/l	---	2150	200	ug/l	---
	Potassium - Dissolved	7440-09-7	5220	200	ug/l	---	7940	200	ug/l	---	2090	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	3280	200	ug/l	---	106000	200	ug/l	---	80400	200	ug/l	---
	Sodium - Dissolved	7440-23-5	5770	200	ug/l	---	116000	200	ug/l	---	87100	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	15.2	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	15.5	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	3010	40.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	402	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	1.69	0.12	mg/l	---	0.21	0.12	mg/l	---	168	12.0	mg/l	---
	Sulfate	14808-79-8	ND	0.60	mg/l	---	ND	0.60	mg/l	---	2.94	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	80.4	5.0	mg/l	---	94.5	5.0	mg/l	---	135	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	80.4	5.0	mg/l	---	ND	5.0	mg/l	---	135	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	CMP-100-082216				CMP-275-082216				CMP-50-082216			
		Lab Sample ID:	46011902512				46011902513				46011902514			
		Sample Date:	8/22/2016				8/22/2016				8/22/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC														
OSW-8260C														
	1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
	2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
	4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
	Acetone	67-64-1	5.6	5.0	ug/l	B	5.6	5.0	ug/l	B	2.9	5.0	ug/l	UB
	Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
	Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chloroform	67-66-3	0.26	1.0	ug/l	J	ND	1.0	ug/l	---	2.3	1.0	ug/l	---
	Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
	Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Methylene Chloride	75-09-2	0.49	1.0	ug/l	J	0.86	1.0	ug/l	J	0.70	1.0	ug/l	J
	Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Xylenes, Total	1330-20-7	0.42	2.0	ug/l	J	0.43	2.0	ug/l	J	ND	2.0	ug/l	---
OSW-8260CSIM														
	1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
	1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
	Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	CMP-100-082216				CMP-275-082216				CMP-50-082216			
		Lab Sample ID:	46011902512				46011902513				46011902514			
		Sample Date:	8/22/2016				8/22/2016				8/22/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.1	ug/l	---	2.8	2.1	ug/l	---	1.7	2.1	ug/l	J
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
	Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2	ND	10	ug/l	---	2.5	10	ug/l	UB	1.7	10	ug/l	UB
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Pentachlorophenol	87-86-5	0.11	0.21	ug/l	J	0.12	0.21	ug/l	J	0.10	0.21	ug/l	J

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	CMP-100-082216				CMP-275-082216				CMP-50-082216			
		Lab Sample ID:	46011902512				46011902513				46011902514			
		Sample Date:	8/22/2016				8/22/2016				8/22/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	43.9	40.0	ug/l	---	50.4	40.0	ug/l	---	21.1	40.0	ug/l	J
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	ND	2.0	ug/l	---	0.94	2.0	ug/l	J	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	44.3	4.0	ug/l	---	134	4.0	ug/l	---	40.8	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	37.5	4.0	ug/l	---	99.7	4.0	ug/l	---	43.8	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	13.2	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	38300	200	ug/l	---	89400	200	ug/l	---	36500	200	ug/l	---
	Calcium - Dissolved	7440-70-2	38200	200	ug/l	---	93800	200	ug/l	---	38300	200	ug/l	---
	Chromium	7440-47-3	2.0	4.0	ug/l	J	25.5	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	1.7	4.0	ug/l	J	40.3	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	8650	120	ug/l	---	21900	120	ug/l	---	1180	120	ug/l	---
	Iron - Dissolved	7439-89-6	ND	120	ug/l	---	2090	120	ug/l	---	136	120	ug/l	---
	Lead	7439-92-1	0.51	1.2	ug/l	J	192	1.2	ug/l	---	0.47	1.2	ug/l	J
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	11100	200	ug/l	---	21100	200	ug/l	---	9660	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	11700	200	ug/l	---	23200	200	ug/l	---	10600	200	ug/l	---
	Manganese	7439-96-5	275	8.0	ug/l	---	1230	8.0	ug/l	---	121	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	253	8.0	ug/l	---	1160	8.0	ug/l	---	109	8.0	ug/l	---
	Nickel	7440-02-0	ND	4.0	ug/l	---	7.3	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	4.4	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	2110	200	ug/l	---	7580	200	ug/l	---	2090	200	ug/l	---
	Potassium - Dissolved	7440-09-7	2080	200	ug/l	---	7310	200	ug/l	---	2000	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	80500	200	ug/l	---	53600	200	ug/l	---	77400	200	ug/l	---
	Sodium - Dissolved	7440-23-5	83200	200	ug/l	---	58300	200	ug/l	---	83600	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	1.4	4.0	ug/l	J	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	1070	16.0	ug/l	---	4260	40.0	ug/l	---	65.7	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	46.0	16.0	ug/l	---	532	16.0	ug/l	---	25.0	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	146	12.0	mg/l	---	85.9	12.0	mg/l	---	142	12.0	mg/l	---
	Sulfate	14808-79-8	6.50	0.60	mg/l	---	0.71	0.60	mg/l	---	13.6	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	125	5.0	mg/l	---	352	5.0	mg/l	---	107	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	125	5.0	mg/l	---	352	5.0	mg/l	---	107	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	TB-05-082216				SW-PMB-01-082316				Dup-03-082216			
		Lab Sample ID:	46011902515				46011902516				4601190252			
		Sample Date:	8/22/2016				8/23/2016				8/22/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC														
OSW-8260C														
1,1,1-Trichloroethane	71-55-6		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3		ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6		ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1		ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1		5.6	5.0	ug/l	---	6.8	5.0	ug/l	B	5.9	5.0	ug/l	B
Benzene	71-43-2		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2		ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Bromomethane	74-83-9		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9		ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7		ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM														
1,2,3-Trichloropropane	96-18-4		ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8		ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4		ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	TB-05-082216				SW-PMB-01-082316				Dup-03-082216			
		Lab Sample ID:	46011902515				46011902516				4601190252			
		Sample Date:	8/22/2016				8/23/2016				8/22/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4					ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3					ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1					ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2					ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4					ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2					ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2					ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9					ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5					ND	21	ug/l	---	ND	20	ug/l	---
	2,4-Dinitrotoluene	121-14-2					ND	2.1	ug/l	---	ND	2.0	ug/l	---
	2,6-Dinitrotoluene	606-20-2					ND	2.1	ug/l	---	ND	2.0	ug/l	---
	2-Chloronaphthalene	91-58-7					ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8					ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6					ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7					ND	10	ug/l	UJ	ND	10	ug/l	UJ
	2-Nitroaniline	88-74-4					ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5					ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1					ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2					ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1					ND	21	ug/l	---	ND	20	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3					ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7					ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8					ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3					ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5					ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6					ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7					ND	21	ug/l	---	ND	20	ug/l	---
	Acenaphthene	83-32-9					ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8					ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2					ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7					ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9					ND	2.1	ug/l	---	ND	2.0	ug/l	---
	Benzaldehyde	100-52-7					ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2					ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1					ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7					4.0	2.1	ug/l	---	1.9	2.0	ug/l	J
	Butyl benzyl phthalate	85-68-7					ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2					ND	10	ug/l	UJ	ND	10	ug/l	UJ
	Carbazole	86-74-8					ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9					ND	2.1	ug/l	---	ND	2.0	ug/l	---
	Di-n-butyl phthalate	84-74-2					2.7	10	ug/l	UB	1.4	10	ug/l	UB
	Di-n-octyl phthalate	117-84-0					ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9					ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2					ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3					ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0					ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7					ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4					ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1					ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6					ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3					ND	10	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8					ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2					ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0					ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3					ND	0.052	ug/l	---	ND	0.050	ug/l	---
	Benzo[a]pyrene	50-32-8					ND	0.052	ug/l	---	ND	0.050	ug/l	---
	Benzo[b]fluoranthene	205-99-2					ND	0.052	ug/l	---	ND	0.050	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4					ND	0.021	ug/l	---	ND	0.020	ug/l	---
	Dibenz(a,h)anthracene	53-70-3					ND	0.052	ug/l	---	ND	0.050	ug/l	---
	Hexachlorobenzene	118-74-1					ND	0.021	ug/l	---	ND	0.020	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5					ND	0.052	ug/l	---	ND	0.050	ug/l	---
	Pentachlorophenol	87-86-5					0.12	0.21	ug/l	J	ND	0.20	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	TB-05-082216				SW-PMB-01-082316				Dup-03-082216			
		Lab Sample ID:	46011902515				46011902516				4601190252			
		Sample Date:	8/22/2016				8/23/2016				8/22/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3					ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5					610	40.0	ug/l	---	20.1	40.0	ug/l	J
	Aluminum - Dissolved	7429-90-5					ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2					3.5	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3					345	4.0	ug/l	---	101	4.0	ug/l	---
	Barium - Dissolved	7440-39-3					37.7	4.0	ug/l	---	102	4.0	ug/l	---
	Beryllium	7440-41-7					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2					58900	200	ug/l	---	19900	200	ug/l	---
	Calcium - Dissolved	7440-70-2					61400	200	ug/l	---	20900	200	ug/l	---
	Chromium	7440-47-3					1.6	4.0	ug/l	J	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4					4.0	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8					8.0	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6					46800	120	ug/l	---	1770	120	ug/l	---
	Iron - Dissolved	7439-89-6					62.5	120	ug/l	J	ND	120	ug/l	---
	Lead	7439-92-1					3.2	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1					ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4					11100	200	ug/l	---	3310	200	ug/l	---
	Magnesium - Dissolved	7439-95-4					12600	200	ug/l	---	3300	200	ug/l	---
	Manganese	7439-96-5					17400	8.0	ug/l	---	220	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5					901	8.0	ug/l	---	148	8.0	ug/l	---
	Nickel	7440-02-0					3.2	4.0	ug/l	J	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7					10200	200	ug/l	---	5130	200	ug/l	---
	Potassium - Dissolved	7440-09-7					10700	200	ug/l	---	5090	200	ug/l	---
	Selenium	7782-49-2					ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2					ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5					71400	200	ug/l	---	2330	200	ug/l	---
	Sodium - Dissolved	7440-23-5					82100	200	ug/l	---	2260	200	ug/l	---
	Thallium	7440-28-0					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2					2.5	4.0	ug/l	J	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6					25.7	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6					ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6					ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6					ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5					0.0061	0.010	mg/l	J	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6					139	12.0	mg/l	---	1.67	0.12	mg/l	---
	Sulfate	14808-79-8					1.99	0.60	mg/l	---	ND	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506					205	5.0	mg/l	---	76.4	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508					205	5.0	mg/l	---	76.4	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	SW-PAB-02-082216				SW-PAB-03-082216				SW-PMB-02-082216			
		Lab Sample ID:	4601190253				4601190254				4601190255			
		Sample Date:	8/22/2016				8/22/2016				8/22/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	7.9	5.0	ug/l	B	4.6	5.0	ug/l	UB	4.2	5.0	ug/l	UB
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	0.0091	0.020	ug/l	J
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	SW-PAB-02-082216				SW-PAB-03-082216				SW-PMB-02-082216			
		Lab Sample ID:	4601190253				4601190254				4601190255			
		Sample Date:	8/22/2016				8/22/2016				8/22/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	20	ug/l	---	ND	20	ug/l	---	ND	23	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.3	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.3	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	11	ug/l	UJ
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	20	ug/l	---	ND	20	ug/l	---	ND	23	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	4-Nitrophenol	100-02-7	ND	20	ug/l	---	ND	20	ug/l	---	ND	23	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Atrazine	1912-24-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.3	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.1	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	3.2	2.0	ug/l	---	1.9	2.0	ug/l	J	2.2	2.3	ug/l	J
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	11	ug/l	UJ
	Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Chrysene	218-01-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.3	ug/l	---
	Di-n-butyl phthalate	84-74-2	2.8	10	ug/l	UB	1.9	10	ug/l	UB	2.0	11	ug/l	UB
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.1	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.1	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.1	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.1	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
	Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	11	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.050	ug/l	---	ND	0.050	ug/l	---	ND	0.057	ug/l	---
	Benzo[a]pyrene	50-32-8	ND	0.050	ug/l	---	ND	0.050	ug/l	---	ND	0.057	ug/l	---
	Benzo[b]fluoranthene	205-99-2	ND	0.050	ug/l	---	ND	0.050	ug/l	---	ND	0.057	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.023	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.050	ug/l	---	ND	0.050	ug/l	---	ND	0.057	ug/l	---
	Hexachlorobenzene	118-74-1	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.023	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.050	ug/l	---	ND	0.050	ug/l	---	ND	0.057	ug/l	---
	Pentachlorophenol	87-86-5	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.23	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

			Sample Name:	SW-PAB-02-082216				SW-PAB-03-082216				SW-PMB-02-082216			
			Lab Sample ID:	4601190253				4601190254				4601190255			
			Sample Date:	8/22/2016				8/22/2016				8/22/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	26.0	40.0	ug/l	J	43.6	40.0	ug/l	---	72.9	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	ND	2.0	ug/l	---	0.86	2.0	ug/l	J	ND	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Barium	7440-39-3	103	4.0	ug/l	---	113	4.0	ug/l	---	19.2	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	84.2	4.0	ug/l	---	100	4.0	ug/l	---	19.0	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	28100	200	ug/l	---	31100	200	ug/l	---	43300	200	ug/l	---
	Calcium - Dissolved	7440-70-2	28200	200	ug/l	---	31400	200	ug/l	---	46500	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	5790	120	ug/l	---	12700	120	ug/l	---	692	120	ug/l	---
	Iron - Dissolved	7439-89-6	182	120	ug/l	---	61.4	120	ug/l	J	ND	120	ug/l	---
	Lead	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	4790	200	ug/l	---	5390	200	ug/l	---	11600	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	4610	200	ug/l	---	5260	200	ug/l	---	13100	200	ug/l	---
	Manganese	7439-96-5	1800	8.0	ug/l	---	3200	8.0	ug/l	---	247	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	1110	8.0	ug/l	---	3360	8.0	ug/l	---	159	8.0	ug/l	---
	Nickel	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Potassium	7440-09-7	1640	200	ug/l	---	637	200	ug/l	---	4630	200	ug/l	---
	Potassium - Dissolved	7440-09-7	1480	200	ug/l	---	658	200	ug/l	---	4820	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	6300	200	ug/l	---	6680	200	ug/l	---	44700	200	ug/l	---
	Sodium - Dissolved	7440-23-5	6480	200	ug/l	---	6950	200	ug/l	---	49300	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6	6.6	16.0	ug/l	J	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	5.96	0.24	mg/l	J	7.19	0.24	mg/l	---	85.4	6.00	mg/l	---
	Sulfate	14808-79-8	0.93	0.60	mg/l	---	0.80	0.60	mg/l	---	6.74	0.60	mg/l	---
	APHA-2320B													
	Alkalinity	E-14506	94.5	5.0	mg/l	---	105	5.0	mg/l	---	147	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	94.5	5.0	mg/l	---	105	5.0	mg/l	---	147	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	SW-MRB-01-082216				SW-NOB-01-082216				RW-12(55-65)-082216			
		Lab Sample ID:	4601190256				4601190257				4601190258			
		Sample Date:	8/22/2016				8/22/2016				8/22/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC														
OSW-8260C														
	1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
	2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
	4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
	Acetone	67-64-1	4.2	5.0	ug/l	UB	5.5	5.0	ug/l	B	12	5.0	ug/l	B
	Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
	Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	1.1	1.0	ug/l	---
	Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
	Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	1.9	1.0	ug/l	---
	trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM														
	1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
	1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
	Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	SW-MRB-01-082216				SW-NOB-01-082216				RW-12(55-65)-082216			
		Lab Sample ID:	4601190256				4601190257				4601190258			
		Sample Date:	8/22/2016				8/22/2016				8/22/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	1.1	2.1	ug/l	J	2.3	2.1	ug/l	---	2.2	2.1	ug/l	---
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
	Carbazole	86-74-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2	ND	10	ug/l	---	2.2	10	ug/l	UB	1.9	10	ug/l	UB
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	---	ND	10	ug/l	---	2.1	10	ug/l	J
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	10	ug/l	---	6.3	10	ug/l	J
	Pyrene	129-00-0	ND	10	ug/l	---	ND	10	ug/l	---	ND	10	ug/l	---
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	---	ND	0.052	ug/l	---	ND	0.052	ug/l	---
	Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.21	ug/l	---	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

			Sample Name:	SW-MRB-01-082216				SW-NOB-01-082216				RW-12(55-65)-082216			
			Lab Sample ID:	4601190256				4601190257				4601190258			
			Sample Date:	8/22/2016				8/22/2016				8/22/2016			
		Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other															
	OSW-8082A														
		PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
		PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
		PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
		PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
		PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.40	ug/l	---	0.33	0.40	ug/l	J
		PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
		PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
		PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
		PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.40	ug/l	---	ND	0.40	ug/l	---
		Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.40	ug/l	---	0.33	0.40	ug/l	J
Metals															
	OSW-6020A														
		Aluminum	7429-90-5	121	40.0	ug/l	---	247	40.0	ug/l	---	156	40.0	ug/l	---
		Aluminum - Dissolved	7429-90-5	15.2	40.0	ug/l	J	70.6	40.0	ug/l	---	150	40.0	ug/l	---
		Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
		Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
		Arsenic	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	12.0	2.0	ug/l	---
		Arsenic - Dissolved	7440-38-2	ND	2.0	ug/l	---	ND	2.0	ug/l	---	13.9	2.0	ug/l	---
		Barium	7440-39-3	11.4	4.0	ug/l	---	14.6	4.0	ug/l	---	20.6	4.0	ug/l	---
		Barium - Dissolved	7440-39-3	10.4	4.0	ug/l	---	13.6	4.0	ug/l	---	22.1	4.0	ug/l	---
		Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
		Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
		Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
		Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
		Calcium	7440-70-2	4450	200	ug/l	---	8800	200	ug/l	---	61800	200	ug/l	---
		Calcium - Dissolved	7440-70-2	4500	200	ug/l	---	8830	200	ug/l	---	64100	200	ug/l	---
		Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
		Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
		Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
		Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
		Copper	7440-50-8	2.1	4.0	ug/l	J	1.9	4.0	ug/l	J	ND	4.0	ug/l	---
		Copper - Dissolved	7440-50-8	1.6	4.0	ug/l	J	1.6	4.0	ug/l	J	ND	4.0	ug/l	---
		Iron	7439-89-6	502	120	ug/l	---	536	120	ug/l	---	ND	120	ug/l	---
		Iron - Dissolved	7439-89-6	112	120	ug/l	J	201	120	ug/l	---	ND	120	ug/l	---
		Lead	7439-92-1	ND	1.2	ug/l	---	0.67	1.2	ug/l	J	ND	1.2	ug/l	---
		Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
		Magnesium	7439-95-4	1610	200	ug/l	---	3130	200	ug/l	---	484	200	ug/l	---
		Magnesium - Dissolved	7439-95-4	1560	200	ug/l	---	3110	200	ug/l	---	590	200	ug/l	---
		Manganese	7439-96-5	78.3	8.0	ug/l	---	44.9	8.0	ug/l	---	ND	8.0	ug/l	---
		Manganese - Dissolved	7439-96-5	4.1	8.0	ug/l	J	15.9	8.0	ug/l	---	ND	8.0	ug/l	---
		Nickel	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	2.1	4.0	ug/l	J
		Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	ND	4.0	ug/l	---	1.7	4.0	ug/l	J
		Potassium	7440-09-7	532	200	ug/l	---	749	200	ug/l	---	23800	200	ug/l	---
		Potassium - Dissolved	7440-09-7	503	200	ug/l	---	713	200	ug/l	---	23600	200	ug/l	---
		Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	6.3	10.0	ug/l	J
		Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	7.1	10.0	ug/l	J
		Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
		Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
		Sodium	7440-23-5	2520	200	ug/l	---	2580	200	ug/l	---	128000	200	ug/l	---
		Sodium - Dissolved	7440-23-5	2410	200	ug/l	---	2520	200	ug/l	---	140000	200	ug/l	---
		Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
		Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
		Vanadium	7440-62-2	ND	4.0	ug/l	---	1.7	4.0	ug/l	J	2.3	4.0	ug/l	J
		Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	2.0	4.0	ug/l	J
		Zinc	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
		Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A														
		Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
		Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry															
	OSW-9012B														
		Cyanide, Total	57-12-5	ND	0.010	mg/l	---	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A														
		Chloride	16887-00-6	1.83	0.12	mg/l	---	1.65	0.12	mg/l	---	51.1	6.00	mg/l	---
		Sulfate	14808-79-8	4.97	0.60	mg/l	---	5.05	0.60	mg/l	---	291	30.0	mg/l	---
	APHA-2320B														
		Alkalinity	E-14506	24.1	5.0	mg/l	---	30.2	5.0	mg/l	---	98.5	5.0	mg/l	---
		Bicarbonate Alkalinity as CaCO3	E-14508	24.1	5.0	mg/l	---	30.2	5.0	mg/l	---	ND	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

Sample Name: RW-2(452-462)-082216
Lab Sample ID: 4601190259
Sample Date: 8/22/2016

Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC					
OSW-8260C					
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---
Acetone	67-64-1	16	5.0	ug/l	B
Benzene	71-43-2	0.20	1.0	ug/l	J
Bromoform	75-25-2	ND	1.0	ug/l	UJ
Bromomethane	74-83-9	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	0.70	1.0	ug/l	J
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---
Chloromethane	74-87-3	0.32	1.0	ug/l	J
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	0.32	1.0	ug/l	J
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---
Toluene	108-88-3	0.69	1.0	ug/l	J
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	0.20	1.0	ug/l	J
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---
OSW-8260CSIM					
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

Sample Name: RW-2(452-462)-082216
Lab Sample ID: 4601190259
Sample Date: 8/22/2016

Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC					
OSW-8270D					
1,1'-Biphenyl	92-52-4	ND	10	ug/l	---
1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---
2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---
2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---
2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---
2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---
2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---
2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---
2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---
2-Chloronaphthalene	91-58-7	ND	10	ug/l	---
2-Chlorophenol	95-57-8	ND	10	ug/l	---
2-Methylnaphthalene	91-57-6	ND	10	ug/l	---
2-Methylphenol	95-48-7	ND	10	ug/l	UJ
2-Nitroaniline	88-74-4	ND	10	ug/l	---
2-Nitrophenol	88-75-5	ND	10	ug/l	---
3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---
3-Nitroaniline	99-09-2	ND	10	ug/l	---
4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---
4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---
4-Chloroaniline	106-47-8	ND	10	ug/l	---
4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---
4-Methylphenol	106-44-5	ND	10	ug/l	---
4-Nitroaniline	100-01-6	ND	10	ug/l	---
4-Nitrophenol	100-02-7	ND	21	ug/l	---
Acenaphthene	83-32-9	ND	10	ug/l	---
Acenaphthylene	208-96-8	ND	10	ug/l	---
Acetophenone	98-86-2	ND	10	ug/l	---
Anthracene	120-12-7	ND	10	ug/l	---
Atrazine	1912-24-9	ND	2.1	ug/l	---
Benzaldehyde	100-52-7	ND	10	ug/l	---
Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---
Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---
Bis(2-ethylhexyl) phthalate	117-81-7	1.5	2.1	ug/l	J
Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---
Caprolactam	105-60-2	ND	10	ug/l	UJ
Carbazole	86-74-8	ND	10	ug/l	---
Chrysene	218-01-9	ND	2.1	ug/l	---
Di-n-butyl phthalate	84-74-2	1.5	10	ug/l	UB
Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---
Dibenzofuran	132-64-9	ND	10	ug/l	---
Diethyl phthalate	84-66-2	ND	10	ug/l	---
Dimethyl phthalate	131-11-3	ND	10	ug/l	---
Fluoranthene	206-44-0	ND	10	ug/l	---
Fluorene	86-73-7	ND	10	ug/l	---
Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	---
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---
Hexachloroethane	67-72-1	ND	1.0	ug/l	---
Isophorone	78-59-1	ND	10	ug/l	---
N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---
Naphthalene	91-20-3	ND	10	ug/l	---
Nitrobenzene	98-95-3	ND	1.0	ug/l	---
Phenanthrene	85-01-8	ND	10	ug/l	---
Phenol	108-95-2	11	10	ug/l	---
Pyrene	129-00-0	ND	10	ug/l	---
OSW-8270DSIM					
Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	---
Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	---
Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	---
Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---
Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	---
Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---
Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	---
Pentachlorophenol	87-86-5	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

Sample Name: RW-2(452-462)-082216
Lab Sample ID: 4601190259
Sample Date: 8/22/2016

Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier
GC Other					
OSW-8082A					
PCB-1016	12674-11-2	ND	0.40	ug/l	---
PCB-1221	11104-28-2	ND	0.40	ug/l	---
PCB-1232	11141-16-5	ND	0.40	ug/l	---
PCB-1242	53469-21-9	ND	0.40	ug/l	---
PCB-1248	12672-29-6	0.77	0.40	ug/l	---
PCB-1254	11097-69-1	ND	0.40	ug/l	---
PCB-1260	11096-82-5	ND	0.40	ug/l	---
PCB-1262	37324-23-5	ND	0.40	ug/l	---
PCB-1268	11100-14-4	ND	0.40	ug/l	---
Polychlorinated biphenyls, Total	1336-36-3	0.77	0.40	ug/l	---
Metals					
OSW-6020A					
Aluminum	7429-90-5	114	40.0	ug/l	---
Aluminum - Dissolved	7429-90-5	97.9	40.0	ug/l	---
Antimony	7440-36-0	ND	2.0	ug/l	---
Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---
Arsenic	7440-38-2	4.3	2.0	ug/l	---
Arsenic - Dissolved	7440-38-2	4.8	2.0	ug/l	---
Barium	7440-39-3	53.5	4.0	ug/l	---
Barium - Dissolved	7440-39-3	58.6	4.0	ug/l	---
Beryllium	7440-41-7	ND	0.80	ug/l	---
Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---
Cadmium	7440-43-9	ND	2.0	ug/l	---
Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---
Calcium	7440-70-2	115000	200	ug/l	---
Calcium - Dissolved	7440-70-2	122000	200	ug/l	---
Chromium	7440-47-3	ND	4.0	ug/l	---
Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---
Cobalt	7440-48-4	ND	4.0	ug/l	---
Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---
Copper	7440-50-8	ND	4.0	ug/l	---
Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---
Iron	7439-89-6	56.4	120	ug/l	J
Iron - Dissolved	7439-89-6	ND	120	ug/l	---
Lead	7439-92-1	ND	1.2	ug/l	---
Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---
Magnesium	7439-95-4	ND	200	ug/l	---
Magnesium - Dissolved	7439-95-4	ND	200	ug/l	---
Manganese	7439-96-5	ND	8.0	ug/l	---
Manganese - Dissolved	7439-96-5	ND	8.0	ug/l	---
Nickel	7440-02-0	6.6	4.0	ug/l	---
Nickel - Dissolved	7440-02-0	6.5	4.0	ug/l	---
Potassium	7440-09-7	97500	200	ug/l	---
Potassium - Dissolved	7440-09-7	93500	200	ug/l	---
Selenium	7782-49-2	3.1	10.0	ug/l	J
Selenium - Dissolved	7782-49-2	3.6	10.0	ug/l	J
Silver	7440-22-4	ND	2.0	ug/l	---
Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---
Sodium	7440-23-5	297000	200	ug/l	---
Sodium - Dissolved	7440-23-5	332000	200	ug/l	---
Thallium	7440-28-0	ND	0.80	ug/l	---
Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---
Vanadium	7440-62-2	30.8	4.0	ug/l	---
Vanadium - Dissolved	7440-62-2	31.3	4.0	ug/l	---
Zinc	7440-66-6	ND	16.0	ug/l	---
Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---
OSW-7470A					
Mercury	7439-97-6	ND	0.20	ug/l	---
Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---
General Chemistry					
OSW-9012B					
Cyanide, Total	57-12-5	ND	0.010	mg/l	---
OSW-9056A					
Chloride	16887-00-6	636	24.0	mg/l	J
Sulfate	14808-79-8	375	120	mg/l	J
APHA-2320B					
Alkalinity	E-14506	127	5.0	mg/l	---
Bicarbonate Alkalinity as CaCO3	E-14508	ND	5.0	mg/l	---

APPENDIX 4

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	PMP-Pond-082216				RW-2(279-289)-082216				CMP-160-082216				CMP-100-082216				CMP-275-082216			
		Lab Sample ID:	4601190251				46011902510				46011902511				46011902512				46011902513			
		Sample Date:	8/22/2016				8/22/2016				8/22/2016				8/22/2016				8/22/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC																					
OSW-8260C																					
Acetone	67-64-1	4.8	5.0	ug/l	UB	13	5.0	ug/l	B	6.4	5.0	ug/l	B	5.6	5.0	ug/l	B	5.6	5.0	ug/l	B
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
GC/MS SVOC																					
OSW-8270D																					
2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
Caprolactam	105-60-2	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
Di-n-butyl phthalate	84-74-2	1.9	10	ug/l	UB					1.5	10	ug/l	UB					2.5	10	ug/l	UB
General Chemistry																					
OSW-9056A																					
Chloride	16887-00-6																				
Sulfate	14808-79-8																				

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	CMP-50-082216				TB-05-082216				SW-PMB-01-082316				Dup-03-082216				SW-PAB-02-082216			
		Lab Sample ID:	46011902514				46011902515				46011902516				4601190252				4601190253			
		Sample Date:	8/22/2016				8/22/2016				8/23/2016				8/22/2016				8/22/2016			
Analyte	**Cas No.**		**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS VOC																						
OSW-8260C																						
Acetone	67-64-1		2.9	5.0	ug/l	UB					6.8	5.0	ug/l	B	5.9	5.0	ug/l	B	7.9	5.0	ug/l	B
Bromoform	75-25-2		ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
GC/MS SVOC																						
OSW-8270D																						
2-Methylphenol	95-48-7		ND	10	ug/l	UJ					ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
Caprolactam	105-60-2		ND	10	ug/l	UJ					ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
Di-n-butyl phthalate	84-74-2		1.7	10	ug/l	UB					2.7	10	ug/l	UB	1.4	10	ug/l	UB	2.8	10	ug/l	UB
General Chemistry																						
OSW-9056A																						
Chloride	16887-00-6																		5.96	0.24	mg/l	J
Sulfate	14808-79-8																					

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

		Sample Name:	SW-PAB-03-082216				SW-PMB-02-082216				SW-MRB-01-082216				SW-NOB-01-082216				RW-12(55-65)-082216			
		Lab Sample ID:	4601190254				4601190255				4601190256				4601190257				4601190258			
		Sample Date:	8/22/2016				8/22/2016				8/22/2016				8/22/2016				8/22/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC																						
OSW-8260C																						
Acetone	67-64-1		4.6	5.0	ug/l	UB	4.2	5.0	ug/l	UB	4.2	5.0	ug/l	UB	5.5	5.0	ug/l	B	12	5.0	ug/l	B
Bromoform	75-25-2		ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
GC/MS SVOC																						
OSW-8270D																						
2-Methylphenol	95-48-7		ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
Caprolactam	105-60-2		ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ
Di-n-butyl phthalate	84-74-2		1.9	10	ug/l	UB	2.0	11	ug/l	UB					2.2	10	ug/l	UB	1.9	10	ug/l	UB
General Chemistry																						
OSW-9056A																						
Chloride	16887-00-6																					
Sulfate	14808-79-8																					

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119025-1

Sample Name: RW-2(452-462)-082216
Lab Sample ID: 4601190259
Sample Date: 8/22/2016

Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC					
OSW-8260C					
Acetone	67-64-1	16	5.0	ug/l	B
Bromoform	75-25-2	ND	1.0	ug/l	UJ
GC/MS SVOC					
OSW-8270D					
2-Methylphenol	95-48-7	ND	10	ug/l	UJ
Caprolactam	105-60-2	ND	10	ug/l	UJ
Di-n-butyl phthalate	84-74-2	1.5	10	ug/l	UB
General Chemistry					
OSW-9056A					
Chloride	16887-00-6	636	24.0	mg/l	J
Sulfate	14808-79-8	375	120	mg/l	J

APPENDIX 5

September 07, 2016

Tim Roeper
Cornerstone EG
100 Crystal Run Road
Suite 101
Middletown, NY 10941

CADENA project ID: E203361
Project: Ford Ringwood Mines Project
Project number:
Client project scope reference: Sample COC only was used to define project analytical requirements.
Laboratory: TestAmerica - Edison
Laboratory submittal: 119025-1
Sample date: 2016-08-22 2016-08-23
Report received by CADENA: 2016-09-07
Initial Data Verification completed by CADENA: 2016-09-08

The following minor QC exceptions or missing information were noted:

LCS - GCMS SVOC QC batch 387194 LCS recoveries were outliers biased low for the following analytes: 2-METHYLPHENOL, CAPROLACTAM. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: 2-METHYLPHENOL and CAPROLACTAM - ALL samples.

MBK - GCMS SVOC QC batch 387194 method blanks had detections below the RL for the following analytes: DI-N-BUTYLPHTHALATE. The following client sample results should be considered to be non-detect at the RL and qualified with UB flags: DI-N-BUTYLPHTHALATE - samples ALL.

TBK - GCMS VOC TRIP blanks had detections above the RL for the following analytes: ACETONE. The following client sample results should be considered to be non-detect at the RL and qualified with UB flags: ACETONE - samples -001, -004, -005, -006, -014. The following client sample results should be considered to be non-detect at the concentration reported and qualified with B flags: ACETONE - samples -002, -003, -007, -008, -009, -010, -011, -012, -013, -016. NOTE: Sample dilution factors are not included when assigning qualification based on trip blank detections.

MSD - CHLORIDE sample -003 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased high. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected.

GCMS VOC QC batch 386589 CCV response outliers as noted in the laboratory submittal case narrative were not used to qualify client sample results as part of this level 2 data package verification review.

GCMS SVOC batch 387194 LCS or LCSD recoveries but not both or RPD only were outliers so for 2,4,6-TRICHLOROPHENOL so were not used to qualify client sample results based on these QC outliers alone.

PCB QC batch 386469, 386833 LCS recoveries were outliers biased high for the following analytes: AROCLOR 1260. Associated client sample results were non-detect so qualification was not required based on these high bias QC outliers.

METALS QC batch 388296, 387370 MS/MSD recovery outliers or sample duplicate RPD outliers were not determined using a client sample so qualification was not required based on these sample-specific QC outliers.

METALS sample -008 MS and or MSD recovery outliers were not used to qualify results for SODIUM, CALCIUM, POTASSIUM due to high levels of these target analytes in the original sample relative to the spike concentration (4X rule).

SULFATE and CHLORIDE sample -009 MS and or MSD recoveries were diluted to below reliably quantifiable levels so were not used to qualify client sample results.

SULFATE sample -003 MS or MSD recoveries but not both or RPD only were outliers so client sample results were not qualified based on these QC outliers alone.

FLUORIDE sample -003 duplicate RPD outlier as noted in the laboratory submittal case narrative was not supported by batch QC data so was not used to qualify client sample results.

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

15 Water sample(s) were analyzed for GCMS VOC, GCMS SVOC, GC Other, Metals, General Chemistry and MISC parameter(s). 1 Trip blank was analyzed for GCMS VOC parameters.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, LCS/LCD RPD, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Qualifiers added during verification have been added to the electronic data which is available for download from the CADENA CLMS. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory analytical report access the CADENA CLMS at http://clms.cadenaco.com/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
J-	The result is an estimated quantity, but the result may be biased low.
JB	NON-DETECT AT THE CONCENTRATION REPORTED AND ESTIMATED
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
JUB	NON-DETECT AT THE REPORTING LIMIT AND ESTIMATED
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CU

460-119025 Chain of Custody

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Name (for report and invoice) Tim Roepe	Samplers Name (Printed) Robert Lautenberg	Site/Project Identification Ford - Ringwood
Company Cornerstone Environmental Group	P. O. # 140802-015	State (Location of site): NJ: NY: Other:
Address 100 Crystal Run Rd. Suite 101	Analysis Turnaround Time: Standard [X]	Regulatory Program: DKQP:
City Middletown State NY 10941	Rush Charges Authorized For: 2 Week [ ] 1 Week [ ] Other [ ]	LAB USE ONLY Project No:
Phone 845 695 0200 Fax		Job No: 119025

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + 15 TICs 8260B	TCL SVOC + 15 TICs 8270B	TAL Metals - Total & Filtered - 6010B/7470A	PCB's	Alkalinity, Total as CaCO3 2320B	Chloride 300/9056	Sulfate 300/9056	Cyanide	Sample Numbers
PMP-Pond-082216	8/22/16	08:30	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-1
Dup-03-082216	8/22/16	12:00	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-2
SW-PAB-02-082216	8/22/16	14:45	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-3
SW-PAB-03-082216	8/22/16	13:00	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-4
SW-PMB-02-082216	8/22/16	17:45	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-5
SW-MRB-01-082216	8/22/16	16:00	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-6
SW-NOB-01-082216	8/22/16	10:00	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-7
RW-12(55-65)-082216	8/22/16	16:10	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-8
RW-2(452-462)-082216	8/22/16	13:00	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-9
RW-2(279-289)-082216	8/22/16	11:05	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-10
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH				Soil:									
6 = Other _____, 7 = Other _____				Water:									

Special Instructions: Do not report 1,4 Dioxane for VOC's + SVOC's

Water Metals Filtered (Yes/No)? No

Relinquished by	Company Cornerstone	Date / Time 8/23/16 820	Received by 1)	Company TA
Relinquished by 2)	Company TA	Date / Time 8/23/16 1145	Received by 2)	Company TA Edison
Relinquished by 3)	Company	Date / Time	Received by 3)	Company 8/23/16 1145
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

Massachusetts (M-NJ312), North Carolina (No. 578)

TAL - 0016 (0715)

IR-1 ~ NJ-05

06/04/06/07/09

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

09/07/2016

Name (for report and invoice): Tim Roeper	Samplers Name (Printed): Robert Lustenberg	Site/Project Identification: Ford - Ringwood
Company: Cornerstone Environmental Group	P. O. #: 140802-015	State (Location of site): NJ: ☒ NY: ☐ Other:
Address: 100 Crystal Run Rd. Suite 101	Analysis Turnaround Time: Standard ☒	Regulatory Program: DKQP: ☐
City: Middletown State: NY 10941	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐	LAB USE ONLY Project No:
Phone: 845 695 0200 Fax:		Job No: 119025

ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOCs + 15 TICs 8260B	TCL SVOCs + 15 TICs 8270B	TAL Metals - Total + Filtered - Chromium	PCB's	Alkalinity, Total as $CaCO_3$ 2320B	Chloride 300.0/9056	Sulfate 300.0/9056	Cyanide	Sample Numbers
CMP-160-082216	8/22/16	13:20	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-11
CMP-100-082216	8/22/16	11:40	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-12
CMP-275-082216	8/22/16	14:50	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	-13
CMP-50-082216	8/22/16	10:30	GW	13	✓	✓	✓	✓	✓	✓	✓	✓	14
TB-05-082216	8/22/16	—	BW	3	✓								-15
SW-PMB-01-082316	8/23/16	07:30	SW	13	✓	✓	✓	✓	✓	✓	✓	✓	-16

Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH, 6 = Other _____, 7 = Other _____ Soil: Water:

Special Instructions Do not report 1,4 Dioxane for VOCs + SVOCs Water Metals Filtered (Yes/No)? No

Relinquished by	Company	Date / Time	Received by	Company
1)	Cornerstone	8/23/16 P20	1)	TA
2)	TA	8/23/16 1145	2)	TA Edison
3)			3)	
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578) FR7 - NOC5 06/04/06/07/09

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
SOW available?				**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**
Scope validation criteria referenced				**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**
Lab certifications required				**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**
Lab single blind PE samples completed				**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**
SAMPLING ISSUES				NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS															
holding times				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
preservation				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
temperature of cooler - degrees C				**0.4 to 0.9**	**0.4 to 0.9**	**0.4 to 0.9**	**0.4 to 0.9**	**0.4 to 0.9**	**0.4 to 0.9**	**0.4 to 0.9**	**0.4 to 0.9**	**0.4 to 0.9**	**0.4 to 0.9**	**0.4 to 0.9**	**0.4 to 0.9**
COC discrepancies				**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**
sample integrity (containers, amounts)				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
ANALYTICAL/PREP GENERAL				**8260C**	**8260C SIM**	**8270D**	**SVOC-SIM**	**PCB**	**METALS-D**	**METALS -T**	**MERCURY-D**	**MERCURY-T**	**CYANIDE**	**CL/SO4**	**ALK**
prep batch		LAB		**NA**	**NA**	**387194**	**387194**	**386833 386713**	**387601 387604**	**387370**	**387639 387697 387480 388137**	**386973 386760**	**388435**	**NA**	**NA**
prep date		LAB		**NA**	**NA**	**27-Aug**	**27-Aug**	**25-Aug**	**30-Aug**	**29-Aug**	**29-Aug**	**25-Aug**	**2-Sep**	**NA**	**NA**
analytical batch		LAB		**386589**	**386835 386888 387169**	**387913**	**387918 388052**	**386920 386921**	**387734 388223**	**388293 389030 388143**	**387632 388129**	**386756 386973**	**388488**	**387412 387602 388332**	**388480**
analytical date		LAB		**25-Aug**	**8/26/2016 8/27**	**31-Aug**	**31-Aug**	**26-Aug**	**30-Aug**	**9/2/2016 9/6**	**1-Sep**	**8/25/2016 8/26 8/30**	**2-Sep**	**29-Aug**	**2-Sep**
instrument ID		LAB		**CVOMS8**	**CVOAMS11**	**CBNAMS6**	**CBNAMS9 CBNAMS4**	**CPESTGC11 CPESTGC9**	**ICPMS2 ICPMS1**	**ICPMS3 ICPMS2**	**LEEMAN6**	**LEEMAN6**	**LACHAT3**	**IC A**	**NA**
Instrument Tune		METHOD	tune	**OK**	**OK**	**OK**	**OK**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**
Instrument Performance Checks		METHOD	tailing, degradation	**NA**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
ICAL (Initial Calibration Curve)	CURVE ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	**57218**	**57303**	**57491 57159**	**57611 57255**	**56313**	**OK**	**OK**	**OK**	**OK**	**OK**	**57277**	**NA**
ICAL (Initial Calibration Curve)	CURVE DATE	METHOD		**10-Aug**	**19-Aug**	**8/9/2016 8/23**	**8/30/2016 8/15**	**17-Jun**	**OK**	**OK**	**OK**	**OK**	**OK**	**17-Aug**	**NA**
ICV (Initial Calibration Verification)		METHOD	max 30%	**OK**	**OK**	**NO RAW DATA**	**NO RAW DATA**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**NA**
CCV (Continuing Calibration Verification)		METHOD	max 20%/50%	**386589-BF-LOW**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Target Compound Lists		SCOPE/COC		**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
Reporting Limits (RL/PQL/LOQ) compliant		SCOPE	1.0 ug/l	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Blanks-method/calibration	method blank	NFG		**OK**	**OK**	**387194-DNBP**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
LCS (Laboratory Control Spikes)		lab control limits	by method	**OK**	**OK**	**387194-LCS/LCSDUP-LOW-2MP, CAPROLACTAM. RPD-246TCP**	**OK**	**386833-LCSD HIGH-1260**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
MS/MSD (Matrix Spikes)		lab control limits	by method	**OK**	**OK**	**NONE**	**NONE**	**NONE**	**SAMP-008-4X-NA,K,CA**	**388293-NCS**	**OK**	**OK**	**OK**	**SAMP-03-MS/MSD HIGH-CL SO4-LOW-MSD SAMP-09-CL-HIGH-MS/MSD, SO4 LOW-MS/MSD**	**NA**
Sample duplicates		lab control limits	NA	**NA**	**NA**	**NA**	**NA**	**NA**	**OK**	**OK**	**OK**	**OK**	**NA**	**OK**	**OK**
Internal standard reponses/RRT		METHOD	50-200%	**OK**	**OK**	**OK**	**OK**	**1 INTERNAL STANDARD - ALL OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Surrogate recoveries		lab control limits	SVOC BN surrogates	**OK**	**OK**	**OK**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Qualitative criteria met		METHOD		**OK**	**OK**	**OK**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
TICS (Tentatively Identified Compounds)		METHOD		**YES**	**NO**	**NO**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
TIC blanks		NFG		**NA**	**NA**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Trip blanks		NFG		**ACETONE**	**ND**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Field blanks		NFG		**OK**	**OK**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Field duplicates		SCOPE		**NA**	**NA**	**NA**	**NO**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Post Digestion Spikes (PDS)		METHOD		**NA**	**NA**	**NA**	**NA**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**
Serial Dilution (SD)		METHOD		**NA**	**NA**	**NA**	**NA**	**NA**	**SAMP-08-K - OUT**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**
CRQL checks performed?		SCOPE		**NA**	**NA**	**NA**	**NA**	**NA**	**OK**	**OK**	**OK**	**OK**	**NA**	**NA**	**NA**
E flagging required		LAB		**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
GENERAL QC TRACKING															
Control Limits		SCOPE	see above	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**	**LAB**
Certificates of Analysis for primary standards		VENDOR	required for NIST trace	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**	**NOT PROVIDED**
Working/Intermediate standard prep calculations		LAB	prep log	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Prep technique		not specified	VARIES	**5030**	**5030**	**3510C**	**3510C**	**3510C**	**3010A**	**3010A**	**NA**	**NA**	**NA**	**NA**	**NA**
Prep sample volumes/mass		not specified	VARIES	**5**	**5**	**250**	**250**	**250**	**50 10**	**50 10**	**50 30**	**30**	**5**	**NA**	**50**
OVERALL							**NO**								
Data Reportable?				**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**
Comments (other)						**LVE/HVI - 250ML/2ML-5UL**	**LVE/HVI - 250ML/2ML-5UL**	**LVE - 250 ML**							

E-Mail Date: 2016-10-03
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ANALYTICAL DATA VALIDATION REPORT

Ringwood Mines/Landfill
Ford Motor Company
PROJECT 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED August 29, 2016
DATA PACKAGE RECEIVED September 14, 2016
SUBMITTAL #: 460-119489-1

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TABLE OF CONTENTS

LISTS OF APPNEDICES

(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by TestAmerica-Edison Laboratory the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	GCMS VOC	GCMS VOC SIM	OSW-SVOC	GCMS SVOC SIM	OSW-PCB	Dissolved Metals by ICP MS	Total Metals by ICP MS	Mercury (Manual Cold Vapor) (D)	Mercury (Manual Cold Vapor) (T)	TOTAL CYANIDE	SULFATE CHLORIDE by IC	Alkalinity
4601194891	TB-09-082916	8/29/2016	x	x										
4601194892	FB-05-082916	8/29/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601194893	RW-14S(135-155)-082916	8/29/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601194894	RW-14D(175-185)-082916	8/29/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601194895	RW-10A(51-61)-082916	8/29/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601194896	RW-10S(120-130)-082916	8/29/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601194897	RW-9A(85-95)-083016	8/30/2016	x	x	x	x	x	x	x	x	x	x	x	x
4601194898	RW-9(206-216)-083016	8/30/2016	x	x	x	x			x		x	x		

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	*Reference Method*	*Analyte Listing*
GCMS VOC Organics	OSW-8260C	Target Compound List
GCMS VOC Organics-SIM	OSW-8260C-SIM	1,2-Dibromo-3-chloropropane and EDB
Semi-Volatile Organics	OSW-8270D	Target Compound List
Semi-Volatile Organics	OSW-8270D/SIM	PAH, PCP, HCB, B2CEE
GC ECD Semi-Volatiles	OSW-8082A	PCB's
Metals by ICP/MS	OSW-6020A	Target Analyte List(total,dissolved)
Mercury by Cold Vapor	OSW-7470A	Mercury(total, dissolved)
Total Cyanide	OSW-9012B	Total Cyanide
Ion Chromatography	OSW-9056A	Chloride, Sulfate
Alkalinity	APHA-2320B	Alkalinity, Bicarbonate Alkalinity

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.

NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

Additional data qualifications based on review of the level 4 data package using laboratory criteria provided if required are noted below. Qualifications that would be required based on comparison to NFG criteria are noted where applicable. These qualifications would be added to the database and associated summary tables in the appendices if applicable.

GCMS SVOC

Continuing Calibration Verification (CCV)388875 response was outside of lab and method criteria biased low for CAPROLACTAM, ATRAZINE. Client samples -007 and -008 ATRAZINE results should be considered to be estimated and qualified with UJ flags (associated results were non-detect). Caprolactam results were already qualified as estimated due to associated LCS recovery low bias outliers.

The following observations **DID NOT** result in qualification but were noted during the validation review:

ALL TEST DATA

Certificates of analysis for standards and all working/primary standard concentrations that are required to verify calibration standard concentrations and spike levels were not available in the laboratory data package for review.

GC/MS SVOC and GCMS SVOC-SIM

Initial Calibration Verification (ICV) raw data was not available for reconstruction/re-calculation of ICV results.

GCMS VOC

Continuing Calibration Verification (CCV) 388349 responses were outliers biased high for trichlorofluoromethane. Qualification of client sample results was not required based on this high bias CCV outlier (all associated results were non-detect).

GC/MS SVOC-SIM

Continuing Calibration Verification (CCV) 388366 responses were outliers biased high for bis-2-chloroethyl ether as well as 1 base-neutral fraction surrogate. Qualification of client sample results was not required based on this high bias CCV outlier (all associated results were non-detect).

METALS

SERIAL DILUTION (SD) for sample -008 POTASSIUM was reported on the QC summary form in the level 4 data package as being an outlier. Evaluation of the associated raw data revealed that the dilution factor (5x) was not included for the serial dilution calcualtion so the reported SD result was not correct. The serial dilution result for POTASSIUM was within acceptable method criteria once re-quantified with the dilution factor included so qualification was not required based on this reported outlier.

VERIFICATION SUMMARY

The following qualifications and associated data flags were applied based on the initial level 2 review of this data package.

TBK - GCMS VOC TRIP blanks had detections above the RL for the following analytes: ACETONE. The following client sample results should be considered to be non-detect at the concentration reported and qualified with B flags: ACETONE - samples -002, -003, -004, -005, -006, -007, -008. NOTE: Sample dilution factors are not included when assigning qualification based on trip blank detections.

MSD - GCMS VOC sample -004 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased low for the following analytes: BROMOFORM. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

TIC - GCMS VOC, GCMS SVOC Tentatively Identified Compounds (TIC's) detected results should be considered to be estimated and qualified with NJ flags.

LCS - GCMS SVOC QC batch 388379 LCS recoveries were outliers biased low for the following analytes: CAPROLACTAM, 2-METHYLPHENOL, NAPHTHALENE, HEXACHLOROBUTADIENE, 2-METHYLNAPHTHALENE. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: CAPROLACTAM, 2-METHYLPHENOL, NAPHTHALENE, HEXACHLOROBUTADIENE, 2-METHYLNAPHTHALENE - samples -002, -003, -004, -005, -006, -007, -008.

MSD - GCMS SVOC sample -004 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased low for the following analytes: MULTIPLE - SEE QAR TABLE ATTACHED. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

MSD - METALS sample -004 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased low for the following analytes: DISSOLVED IRON. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

GCMS VOC QC batch 388349, GCMS SVOC QC batch 388379, GCMS SVOC-SIM QC batch 388366 CCV response outliers as noted in the laboratory submittal case narrative were not used to qualify client sample results as part of this level 2 data package verification review.

GCMS SVOC QC batch 388379 LCS surrogate recovery outliers did not result in qualification of client sample data.

PCB QC batch 388507 LCS recoveries were outliers biased high for the following analytes: AROCLOR 1260 and 1016. Associated client sample results were non-detect so qualification was not required based on these high bias QC outliers.

PCB sample -004 MS or MSD recoveries but not both or RPD only were outliers for AROCLOR 1016, AROCLOR 1260 so client sample results were not qualified based on these QC outliers alone.

METALS sample -004 MS and or MSD recovery outliers were not used to qualify results for SODIUM, CALCIUM, MANGANESE, MAGNESIUM, POTASSIUM due to high levels of these target analytes in the original sample relative to the spike concentration (4X rule).

SULFATE sample -006 MS or MSD recoveries but not both or RPD only were outliers so client sample results were not qualified based on these QC outliers alone.

SULFATE sample -006 duplicate RPD outliers were not used to qualify results since the sample duplicate value was considered to be estimated since it was above the upper calibration range of the instrument and qualified with an E flag by the lab.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

2.0 VOLATILE ORGANIC COMPOUNDS (VOCs) – METHOD SW846 8260C and SIM ANALYSIS

See Attachments for submittal-specific review summary of QC requirements noted below.
The target analyte list was defined by the client-project as TCL List OLM4.2 for 8260C full scan and as noted in section 1 above for SIM analysis.

2.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) VOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS VOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS VOCs

Initial calibration data for VOCs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS VOCs

Initial calibration data for VOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

2.2 CONTINUING CALIBRATION – GC/MS VOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless otherwise noted in the executive summary noted above and qualified in the data tables. Target analytes associated with CCV compounds outside of method criteria were qualified as estimated with J flags if sample results were non-detect and estimated with UJ flags if CCV bias was low and sample results was

non-detect and J flags if sample results were detections. Non-detect results were not qualified if CCV bias was high and sample results were non-detect.

2.3 INTERNAL STANDARDS – GC/MS VOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS VOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS VOCs

A laboratory control sample (LCS) was prepared and analyzed for VOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless otherwise noted in the executive summary and as qualified the QAR and ARS data tables found in the appendices.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS VOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS VOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS VOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS VOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS VOCs

Tentatively Identified Compounds (TIC) searches were associated with each sample analysis and should all be considered to be estimated and qualified with NJ flags when detected.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS VOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D and SIM analysis – GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

3.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

3.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

3.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

3.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

3.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response without exception.

3.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

3.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) was prepared and analyzed for the target analyte SVOCs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

3.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

The MS/MSD recoveries and RPD's – unless otherwise not evaluated as noted above - were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

3.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

3.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

3.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

3.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

3.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal..

4.0 POLYCHLORINATED BIPHENYLS (PCBs) – METHOD SW846 8082A

The target analyte list was defined by the client as the standard 7 aroclors.

4.1 CALIBRATION – GAS CHROMATOGRAPH-ECD

4.1.1 TUNING AND MASS CALIBRATION – PCB

Not applicable for this analysis.

4.1.2 INITIAL CALIBRATION – PCB

Initial calibration data for PCBs were reviewed and met the criteria for instrument sensitivity and linearity of response without exception.

4.1.3 INITIAL CALIBRATION VERIFICATION – PCB

Initial calibration verification (ICV) standards for PCB analyses were reviewed and met criteria specified by the laboratory with no exceptions.

4.2 CONTINUING CALIBRATION – PCBs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary.

4.3 INTERNAL STANDARDS – PCB

Internal standard (IS) data were reviewed and met criteria unless noted otherwise in verification/validation summary. (NOTE: Lab quantitation approach DID use internal standard quantitation for this submittal).

4.4 SURROGATE SPIKE RECOVERIES – PCB

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were within the established laboratory control limits unless noted otherwise in verification/validation summary.

4.5 LABORATORY CONTROL SAMPLE ANALYSES - PCB

A laboratory control sample (LCS) was prepared and analyzed for PCBs. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

4.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - PCB

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

CADENA does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

4.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - PCB

There were no field duplicate comparisons performed as part of this validation request.

4.8 EXTRACT CLEANUP - PCB

Extract cleanups were performed in accordance with laboratory SOP's and as noted in level 4 data package prep logs.

4.9 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - PCB

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

4.10 TENTATIVELY IDENTIFIED COMPOUNDS - PCB

Not requested for this analytical procedure.

4.11 BLANKS – METHOD/FIELD/CALIBRATION - PCB

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

5.0 HPLC/IC – METHOD SW846 9056A – CHLORIDE AND SULFATE

5.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

5.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

5.3 CONTINUTING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

5.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

5.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD's were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

5.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

5.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

5.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

6.0 METALS – ICPMS by Method 6020A TOTAL AND DISSOLVED and Mercury by Method 7470A

The following samples provided in this SDG underwent a Level IV review for either/and metals or mercury analyses:

- Method 6020A: ALL
- Method 7470A: ALL

6.1 ICP/MS TUNING AND MASS CALIBRATION

Instrument tuning data were reviewed. Tuning elements were analyzed. All tuning criteria were met for the analyses, indicating proper optimization of the instrumentation.

6.2 INITIAL CALIBRATION

Initial calibration data for metals and mercury were reviewed and met the criteria for linearity of response without exception.

6.3 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards for metals and mercury analyses were reviewed and met criteria unless otherwise noted in verification/validation summary section of this document.

An initial calibration blank (ICB) was analyzed for metals and mercury analyses. Metals and mercury were reported as non-detect in each ICB analysis unless noted otherwise in verification/validation summary.

6.4 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for metals and mercury analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

6.5 INTERFERENCE CHECK STANDARD

The interference check standard results were reviewed and found to meet criteria.

6.6 INTERNAL STANDARDS

Internal standard (IS) data were reviewed and found to meet criteria unless noted otherwise in verification/validation summary.

6.7 LABORATORY CONTROL SAMPLE ANALYSIS

A laboratory control sample (LCS) was prepared and analyzed for metals and mercury. The LCS recoveries were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

6.8 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE (MS/MSD) ANALYSES

The MS/MSD recoveries and RPD's were either not performed using a client sample or were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

6.9 CONTRACT REQUIRED DETECTION LIMIT STANDARD ANALYSES

Each contract required detection limit (CRDL) standard was analyzed at the proper frequency and were within laboratory control limits unless noted otherwise in verification/validation summary.

6.10 ICP SERIAL DILUTION

Serial dilutions were analyzed at the proper frequency and were either not performed using the client sample or were within laboratory control limits unless noted otherwise in verification/validation summary.

6.11 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

6.12 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

6.13 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

7.0 GENERAL CHEMISTRY- TOTAL AND AMENABLE CYANIDE AND ALKALINITY – METHODS 9012B and 2320B

7.1 INITIAL CALIBRATION

Initial calibration data were reviewed and met the criteria for linearity of response unless noted otherwise in verification/validation summary.

7.2 INITIAL CALIBRATION VERIFICATION

Initial calibration verification (ICV) standards reviewed and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

7.3 CONTINUING CALIBRATION

Continuing calibration verification (CCV) standards for these analyses were analyzed at the required frequency and met criteria specified by the laboratory unless noted otherwise in verification/validation summary.

The continuing calibration blanks (CCB) were analyzed at the proper frequency and were reported as non-detect unless noted otherwise in verification/validation summary.

7.4 LABORTORY CONTROL SAMPLE ANALYSES

A laboratory control sample (LCS) was prepared and analyzed for these analyses. The LCS recoveries were within the laboratory control limits unless noted otherwise in verification/validation summary.

7.5 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES

The MS/MSD recoveries and RPD’s were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

Cadena does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

7.6 FIELD QA/QC – FIELD DUPLICATE ANALYSES

There were no field duplicate comparisons performed as part of this validation request.

7.7 TARGET ANALYTES AND REQUIRED LIMITS OF DETECTION

Target analyte lists were based on project specific requirements. Limits of detection were not specifically provided for water matrices. Analyte lists reported by laboratory were in compliance with available reference documents (COC).

7.8 BLANKS – METHOD/FIELD/CALIBRATION

The method blank results for samples from the SDG covered in this evaluation were all non-detect at the method detection limit unless noted otherwise in verification/validation summary.

8.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

8.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

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All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	***Reference Method***	***Matrix***	***Preservation & Storage***	***Holding Times***
Volatile Organics by GCMS	OSW-8260C/SIM	Water	Acidify ph<2 Refrigeration 0-6oC	14 days
Semivolatile Organics by GCMS	OSW-8270D/SIM	Water	Refrigeration 0-6oC	7 days Extraction 40 days Analysis
Polychlorinated Biphenyls by GC/ECD	OSW-8082A	Water	Refrigeration 0-6oC	365 days - Extraction - Analysis
Metals by ICP/ICPMS Spectroscopy	OSW-6010B OSW-6020A	Water	Acidify pH<2 Refrigeration 0-6oC	180 days
Mercury in Aqueous Waste	OSW-7470A	Water	Acidify pH<2 Refrigeration 0-6oC	28 days
Alkalinity	EPA 2320B	Water	Refrigeration 0-6oC	14 days
Chloride and Sulfate	OSW-9056A	Water	Refrigeration 0-6oC	28 days
Total and Amenable Cyanide	OSW-9012B	Water	Test for presence of Sulfide – if unknown collect two samples and treat one with Lead Carbonate. Then adjust sample to pH of greater than or equal to 12with NaOH. Refrigeration at 0-4C –(also may require treatment for aldehydes and chlorine/hypochlorite/sulfite)	14 days if preserved. 24 hours or sooner if unpreserved

8.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

9.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

10.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: TestAmerica-Edison
Laboratory Submittal: 119489-1

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS VOC Volatiles	GCMS VOC SIM	OSW-8270D	GCMS SVOC SIM	OSW-8082A	Metals by ICP Mass Spectroscopy(D)	Metals by ICP Mass Spectroscopy	Mercury (Manual Cold Vapor)(D)	Mercury (Manual Cold Vapor)	TOTAL AND AMENABLE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Anions by IC	Alkalinity Prep
4601194891	TB-09-082916	8/29/2016	12:00:00	X	X										
4601194892	FB-05-082916	8/29/2016	7:20:00	X	X	X	X	X	X	X	X	X	X	X	X
4601194893	RW-14S(135-155)-082916	8/29/2016	8:45:00	X	X	X	X	X	X	X	X	X	X	X	X
4601194894	RW-14D(175-185)-082916	8/29/2016	9:40:00	X	X	X	X	X	X	X	X	X	X	X	X
4601194895	RW-10A(51-61)-082916	8/29/2016	12:20:00	X	X	X	X	X	X	X	X	X	X	X	X
4601194896	RW-10S(120-130)-082916	8/29/2016	2:30:00	X	X	X	X	X	X	X	X	X	X	X	X
4601194897	RW-9A(85-95)-083016	8/30/2016	7:50:00	X	X	X	X	X	X	X	X	X	X	X	X
4601194898	RW-9(206-216)-083016	8/30/2016	9:45:00	X	X	X	X			X		X	X		

APPENDIX 2

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

Standard Report Cover page
Table of Contents
SDG Case Narrative
Sample Summary
Executive Summary detection highlights
Method Summary
Method/Analyst Summary
Analytical Results
Surrogate Summary
Quality Control Results
Data Qualifiers
QC Summary Association
Lab Chronicle
GCMS Volatiles Data - Method 8260C and SIM
- QC Summary Data
  - Surrogate recoveries (form II)
  - Check Sample recoveries (form III)
  - Matrix spike/Matrix spike duplicate report (form III)
  - Method blank report (form IV)
  - Tuning and mass calibrations (form V)
  - Internal Standard and RT area summary (form VIII)
- Sample Data
  - GCMS VOA Organics Analysis Data Sheet (Form I)
  - Raw integration data from instrument
  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report (Form VII)
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not included with SIM package)
  - FORM I - QC data
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
  - MS and MSD integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Run logs

APPENDIX 2
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NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
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Description

GCMS Semivolatiles Data - Method 8270D and SIM

- QC Summary Data
  - Surrogate recoveries (form II)
  - Check Sample recoveries (form III)
  - Method blank report (form IV)
  - Tuning and mass calibrations (form V) (not applicable for SIM)
  - Internal Standard and RT area summary (form VIII)
- Sample Data
  - GCMS VOA Organics Analysis Data Sheet (Form I)
  - Raw integration data from instrument
  - Total Ion Profile Chromatogram
  - Ion profiles of detected target analyte peaks
  - Manual integration if applicable
  - Tentatively Identified Compound Reports (if applicable)
- Standards Data
  - GCMS VOA Initial Calibration Data Internal Standard Curve Evaluation (Form VI)
  - ICAL Raw integration data from instrument
  - ICAL Total Ion Profile Chromatogram
  - ICV check standard recovery report
  - ICV check standard total ion profile with integration
  - GCMS VOA Continuing Calibration Data (Form VII)
  - CCV raw integration data from instrument
  - CCV Total Ion Profile Chromatogram
  - Manual integration if applicable
- Raw QC Data
  - Tune information (not applicable for SIM)
  - Method Blank integration/internal standard and total ion profile raw data
  - LCS and LCSDuplicate integration/internal standard and total ion profile raw data
- Miscellaneous Data
  - Instrument run logs
  - Extraction bench sheets

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
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NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

- Polychlorinated Biphenyls Data (PCB)
  - QC Summary data
    - Surrogate recoveries (form II)
    - Check Sample Recovery data (form III)
    - Method Blank data (form IV)
    - Analytical sequence with RT check (Form VIII)
    - Identification Summary (Form X)
  - Sample Data
    - Organics Analysis Data Sheet (Form I)
    - Raw integration data from instrument
    - Chromatogram
  - Standards Data (both columns)
    - Initial Calibration Data External Standard RT Summary (Form VI)
    - Initial Calibration Data Summary with average RF
    - Raw integration data from instrument with manual integrations where applicable
    - ICAL chromatograms
    - Continuing Calibration Data (Form VII) with RT Summaries
    - ICV raw integration and chromatograms
    - CCV raw integration data from instrument
    - CCV chromatogram
  - Raw QC Data
    - LCS/LCSD sample data report and integration and chromatograms
    - Method blank integration and chromatograms
  - Miscellaneous Data
    - Sequence table (run log)
    - PCB Batch Worksheet
- HPLC/IC - 9056A ORGFM_28D - Anions, Ion Chromatography - Sulfate and Chloride
  - Raw Data and Data Summaries for:
    - LCS/LCSD (form III)
    - MS/MSD (form III)
    - METHOD BLANKS (Form IV)
    - SAMPLE DATA (Form I)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - ICAL (Form VI)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - ICAL (Form VII)
      - Raw instrument data and chromatography
      - Manual Integration (if applicable)
    - QC DATA (Form I)
      - Raw instrument data and chromatography
    - Analysis Run Logs

APPENDIX 2
LABORATORY DOCUMENTS SUBMITTED FOR REVIEW
FORD RINGWOOD MINES PROJECT
NEW JERSEY FULL PACKAGE MINI FINAL REPORT - LEVEL 4
E203361

Description

METALS DATA (ICPMS and mercury)
- Forms Data
  - Cover Page
  - Inorganic Analysis Data Sheet - Metals Dissolved/Total Recoverable (1A-IN)
  - CCV standard report - mercury and ICPMS (2A-IN)
  - CRQL report - mercury and ICPMS (2B-IN)
  - ICB report - mercury and ICPMS (3-IN)
  - Method blank report (3-IN)
  - Interference check standard A - ICPMS (4A-IN)
  - Interference check standard AB - ICPMS (4A-IN)
  - MS/MSD Sample recovery (5A-IN)
  - PDS Summary (5B-IN)
  - LCS Recovery form (7A-IN)
  - LCS Duplicate Recover (7D-IN)
  - ICP-MS Serial Dilutions (8-IN)
  - Detection Limits Form (9-IN)
  - Linear dynamic ranges - ICPMS (11-IN)
  - Prep log - mercury and ICPMS (12-IN)
  - Run log - ICPMS and Mercury (13-IN)
  - ICP-MS TUNE (14-IN)
  - ICPMS Internal Standards Relative Intensity Summary (15-IN)
- Instrument Printouts
  - ICP-MS Raw instrument data
  - Mercury raw instrument data, run logs and calibrations
- Miscellaneous Data
  - Metals Batch Worksheet

GENERAL CHEMISTRY - Total and Amenable Cyanide and Alkalinity
- Cover Page
- Raw Data and Data Summaries for:
  - Sample Data (Form 1B-IN)
  - CCV/CCB (Form 2-IN)
  - METHOD BLANKS (Form 3-IN)
  - MATRIX SPIKES (Form 5-IN)
  - Sample DUPLICATES (Form 6-IN)
  - LCS/LCSD (Form 7-IN)
  - Detection Limits Form (9-IN)
  - Prep log (12-IN)
  - Analysis Run Logs (13-IN)
  - Raw Data - instrument sample sequence and calibration curve
  - Alkalinity Reagents
  - Alkalinity pH meter calibration
  - Alkalinity sequence log and raw data
  - General Chemistry Batch Worksheets

Shipping and Receiving Documents
- COC forms
- Cooler Receipt Form, checklist and narrative

APPENDIX 3

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119489-1

		Sample Name:	TB-09-082916				FB-05-082916				RW-14S(135-155)-082916			
		Lab Sample ID:	4601194891				4601194892				4601194893			
		Sample Date:	8/29/2016				8/29/2016				8/29/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	7.4	5.0	ug/l	---	7.4	5.0	ug/l	B	13	5.0	ug/l	B
Benzene	71-43-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.56	1.0	ug/l	J
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	0.87	1.0	ug/l	J	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Sulfur dioxide - TIC	7446-09-5												
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	0.96	1.0	ug/l	J
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	0.26	1.0	ug/l	J	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4					ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119489-1

		Sample Name:	TB-09-082916				FB-05-082916				RW-14S(135-155)-082916			
		Lab Sample ID:	4601194891				4601194892				4601194893			
		Sample Date:	8/29/2016				8/29/2016				8/29/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4					ND	10	ug/l	---	ND	10	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3					ND	10	ug/l	---	ND	10	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1					ND	10	ug/l	---	ND	10	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2					ND	10	ug/l	---	ND	10	ug/l	---
	2,4,5-Trichlorophenol	95-95-4					ND	10	ug/l	---	ND	10	ug/l	---
	2,4,6-Trichlorophenol	88-06-2					ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dichlorophenol	120-83-2					ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dimethylphenol	105-67-9					ND	10	ug/l	---	ND	10	ug/l	---
	2,4-Dinitrophenol	51-28-5					ND	20	ug/l	---	ND	20	ug/l	---
	2,4-Dinitrotoluene	121-14-2					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	2,6-Dinitrotoluene	606-20-2					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	2-Chloronaphthalene	91-58-7					ND	10	ug/l	---	ND	10	ug/l	---
	2-Chlorophenol	95-57-8					ND	10	ug/l	---	ND	10	ug/l	---
	2-Methylnaphthalene	91-57-6					ND	10	ug/l	UJ	ND	10	ug/l	UJ
	2-Methylphenol	95-48-7					ND	10	ug/l	UJ	ND	10	ug/l	UJ
	2-Nitroaniline	88-74-4					ND	10	ug/l	---	ND	10	ug/l	---
	2-Nitrophenol	88-75-5					ND	10	ug/l	---	ND	10	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1					ND	10	ug/l	---	ND	10	ug/l	---
	3-Nitroaniline	99-09-2					ND	10	ug/l	---	ND	10	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1					ND	20	ug/l	---	ND	20	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3					ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloro-3-methylphenol	59-50-7					ND	10	ug/l	---	ND	10	ug/l	---
	4-Chloroaniline	106-47-8					ND	10	ug/l	---	ND	10	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3					ND	10	ug/l	---	ND	10	ug/l	---
	4-Methylphenol	106-44-5					ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitroaniline	100-01-6					ND	10	ug/l	---	ND	10	ug/l	---
	4-Nitrophenol	100-02-7					ND	20	ug/l	---	ND	20	ug/l	---
	Acenaphthene	83-32-9					ND	10	ug/l	---	ND	10	ug/l	---
	Acenaphthylene	208-96-8					ND	10	ug/l	---	ND	10	ug/l	---
	Acetophenone	98-86-2					ND	10	ug/l	---	ND	10	ug/l	---
	Anthracene	120-12-7					ND	10	ug/l	---	ND	10	ug/l	---
	Atrazine	1912-24-9					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Benzaldehyde	100-52-7					ND	10	ug/l	---	ND	10	ug/l	---
	Benzenesulfonamide, N-butyl- - TIC	3622-84-2									790	---	ug/l	NJ
	Benzo[g,h,i]perylene	191-24-2					ND	10	ug/l	---	ND	10	ug/l	---
	Benzo[k]fluoranthene	207-08-9					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1					ND	10	ug/l	---	ND	10	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Butyl benzyl phthalate	85-68-7					ND	10	ug/l	---	ND	10	ug/l	---
	Caprolactam	105-60-2					ND	10	ug/l	UJ	ND	10	ug/l	UJ
	Carbazole	86-74-8					ND	10	ug/l	---	ND	10	ug/l	---
	Chrysene	218-01-9					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Di-n-butyl phthalate	84-74-2					ND	10	ug/l	---	ND	10	ug/l	---
	Di-n-octyl phthalate	117-84-0					ND	10	ug/l	---	ND	10	ug/l	---
	Dibenzofuran	132-64-9					ND	10	ug/l	---	ND	10	ug/l	---
	Diethyl phthalate	84-66-2					ND	10	ug/l	---	ND	10	ug/l	---
	Dimethyl phthalate	131-11-3					ND	10	ug/l	---	ND	10	ug/l	---
	Fluoranthene	206-44-0					ND	10	ug/l	---	ND	10	ug/l	---
	Fluorene	86-73-7					ND	10	ug/l	---	ND	10	ug/l	---
	Hexachlorobutadiene	87-68-3					ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ
	Hexachlorocyclopentadiene	77-47-4					ND	10	ug/l	---	ND	10	ug/l	---
	Hexachloroethane	67-72-1					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isophorone	78-59-1					ND	10	ug/l	---	ND	10	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	N-Nitrosodiphenylamine	86-30-6					ND	10	ug/l	---	ND	10	ug/l	---
	Naphthalene	91-20-3					ND	10	ug/l	UJ	ND	10	ug/l	UJ
	Nitrobenzene	98-95-3					ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Phenanthrene	85-01-8					ND	10	ug/l	---	ND	10	ug/l	---
	Phenol	108-95-2					ND	10	ug/l	---	ND	10	ug/l	---
	Pyrene	129-00-0					ND	10	ug/l	---	ND	10	ug/l	---
	Unknown - TIC	Tic1									9.5	---	ug/l	NJ
	Unknown - TIC	Tic2												
	Unknown - TIC	Tic3												
	Unknown - TIC	Tic4												
	Unknown - TIC	Tic5												
	Unknown - TIC	Tic6												
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3					ND	0.050	ug/l	---	ND	0.050	ug/l	---
	Benzo[a]pyrene	50-32-8					ND	0.050	ug/l	---	ND	0.050	ug/l	---
	Benzo[b]fluoranthene	205-99-2					ND	0.050	ug/l	---	ND	0.050	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4					ND	0.020	ug/l	---	ND	0.020	ug/l	---
	Dibenz(a,h)anthracene	53-70-3					ND	0.050	ug/l	---	ND	0.050	ug/l	---
	Hexachlorobenzene	118-74-1					ND	0.020	ug/l	---	ND	0.020	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5					ND	0.050	ug/l	---	ND	0.050	ug/l	---
	Pentachlorophenol	87-86-5					ND	0.20	ug/l	---	ND	0.20	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119489-1

		Sample Name:	TB-09-082916				FB-05-082916				RW-14S(135-155)-082916			
		Lab Sample ID:	4601194891				4601194892				4601194893			
		Sample Date:	8/29/2016				8/29/2016				8/29/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1221	11104-28-2					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1232	11141-16-5					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1242	53469-21-9					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1248	12672-29-6					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1254	11097-69-1					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1260	11096-82-5					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1262	37324-23-5					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	PCB-1268	11100-14-4					ND	0.40	ug/l	---	ND	0.40	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3					ND	0.40	ug/l	---	ND	0.40	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5					ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5					ND	40.0	ug/l	---	ND	40.0	ug/l	---
	Antimony	7440-36-0					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2					ND	2.0	ug/l	---	14.0	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2					ND	2.0	ug/l	---	11.3	2.0	ug/l	---
	Barium	7440-39-3					ND	4.0	ug/l	---	18.1	4.0	ug/l	---
	Barium - Dissolved	7440-39-3					ND	4.0	ug/l	---	16.0	4.0	ug/l	---
	Beryllium	7440-41-7					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2					ND	200	ug/l	---	40000	200	ug/l	---
	Calcium - Dissolved	7440-70-2					ND	200	ug/l	---	41600	200	ug/l	---
	Chromium	7440-47-3					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper	7440-50-8					ND	4.0	ug/l	---	3.2	4.0	ug/l	J
	Copper - Dissolved	7440-50-8					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6					ND	120	ug/l	---	3400	120	ug/l	---
	Iron - Dissolved	7439-89-6					ND	120	ug/l	---	1890	120	ug/l	---
	Lead	7439-92-1					ND	1.2	ug/l	---	0.81	1.2	ug/l	J
	Lead - Dissolved	7439-92-1					ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4					ND	200	ug/l	---	8490	200	ug/l	---
	Magnesium - Dissolved	7439-95-4					ND	200	ug/l	---	8150	200	ug/l	---
	Manganese	7439-96-5					ND	8.0	ug/l	---	110	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5					ND	8.0	ug/l	---	101	8.0	ug/l	---
	Nickel	7440-02-0					ND	4.0	ug/l	---	2.5	4.0	ug/l	J
	Nickel - Dissolved	7440-02-0					ND	4.0	ug/l	---	1.4	4.0	ug/l	J
	Potassium	7440-09-7					ND	200	ug/l	---	4300	200	ug/l	---
	Potassium - Dissolved	7440-09-7					ND	200	ug/l	---	4230	200	ug/l	---
	Selenium	7782-49-2					ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2					ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Silver	7440-22-4					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4					ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5					ND	200	ug/l	---	58900	200	ug/l	---
	Sodium - Dissolved	7440-23-5					ND	200	ug/l	---	53900	200	ug/l	---
	Thallium	7440-28-0					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0					ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2					ND	4.0	ug/l	---	2.1	4.0	ug/l	J
	Vanadium - Dissolved	7440-62-2					ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Zinc	7440-66-6					ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6					ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6					ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6					ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5					ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6					0.15	0.12	mg/l	---	40.2	2.40	mg/l	---
	Sulfate	14808-79-8					ND	0.60	mg/l	---	75.5	12.0	mg/l	---
Prep														
	APHA-2320B													
	Alkalinity	E-14506					ND	5.0	mg/l	---	119	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508					ND	5.0	mg/l	---	119	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119489-1

		Sample Name:	RW-14D(175-185)-082916				RW-10A(51-61)-082916				RW-10S(120-130)-082916			
		Lab Sample ID:	4601194894				4601194895				4601194896			
		Sample Date:	8/29/2016				8/29/2016				8/29/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC													
OSW-8260C													
1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
2-Butanone (MEK)	78-93-3	3.5	5.0	ug/l	J	ND	5.0	ug/l	---	4.7	5.0	ug/l	J
2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---	0.75	5.0	ug/l	J
4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Acetone	67-64-1	15	5.0	ug/l	B	5.0	5.0	ug/l	B	48	5.0	ug/l	B
Benzene	71-43-2	0.31	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromoform	75-25-2	ND	1.0	ug/l	UJ	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Carbon disulfide	75-15-0	1.0	1.0	ug/l	---	ND	1.0	ug/l	---	0.53	1.0	ug/l	J
Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---	ND	5.0	ug/l	---
Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Sulfur dioxide - TIC	7446-09-5									27	---	ug/l	NJ
Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Toluene	108-88-3	0.85	1.0	ug/l	J	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	1.0	ug/l	---
Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM													
1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---	ND	0.030	ug/l	---
1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---
Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119489-1

		Sample Name:	RW-14D(175-185)-082916				RW-10A(51-61)-082916				RW-10S(120-130)-082916			
		Lab Sample ID:	4601194894				4601194895				4601194896			
		Sample Date:	8/29/2016				8/29/2016				8/29/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC														
OSW-8270D														
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	UJ	ND	11	ug/l	---	ND	11	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	UJ	ND	11	ug/l	---	ND	11	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	20	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.0	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.0	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	11	ug/l	UJ
	2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	11	ug/l	UJ
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	UJ	ND	11	ug/l	---	ND	11	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	20	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	UJ	ND	11	ug/l	---	ND	11	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	4-Nitrophenol	100-02-7	ND	20	ug/l	---	ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	UJ	ND	11	ug/l	---	ND	11	ug/l	---
	Atrazine	1912-24-9	ND	2.0	ug/l	UJ	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	Benzenesulfonamide, N-butyl- - TIC	3622-84-2	1500	---	ug/l	NJ								
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.1	ug/l	---	ND	1.1	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.0	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	11	ug/l	UJ
	Carbazole	86-74-8	ND	10	ug/l	UJ	ND	11	ug/l	---	ND	11	ug/l	---
	Chrysene	218-01-9	ND	2.0	ug/l	---	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2	ND	10	ug/l	UJ	ND	11	ug/l	---	ND	11	ug/l	---
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	UJ	ND	11	ug/l	---	ND	11	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	UJ	ND	1.1	ug/l	UJ	ND	1.1	ug/l	UJ
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.1	ug/l	---	ND	1.1	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	UJ	ND	11	ug/l	---	1.3	11	ug/l	J
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.1	ug/l	---	ND	1.1	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	UJ	ND	11	ug/l	---	ND	11	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	11	ug/l	UJ
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.1	ug/l	---	ND	1.1	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	11	ug/l	---	7.4	11	ug/l	J
	Pyrene	129-00-0	ND	10	ug/l	---	ND	11	ug/l	---	ND	11	ug/l	---
	Unknown - TIC	Tic1	8.3	---	ug/l	NJ								
	Unknown - TIC	Tic2	16	---	ug/l	NJ								
	Unknown - TIC	Tic3	10	---	ug/l	NJ								
	Unknown - TIC	Tic4	6.5	---	ug/l	NJ								
	Unknown - TIC	Tic5	8.8	---	ug/l	NJ								
	Unknown - TIC	Tic6	9.1	---	ug/l	NJ								
OSW-8270DSIM														
	Benzo[a]anthracene	56-55-3	ND	0.050	ug/l	---	ND	0.053	ug/l	---	ND	0.053	ug/l	---
	Benzo[a]pyrene	50-32-8	ND	0.050	ug/l	---	ND	0.053	ug/l	---	ND	0.053	ug/l	---
	Benzo[b]fluoranthene	205-99-2	ND	0.050	ug/l	---	ND	0.053	ug/l	---	ND	0.053	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4	ND	0.020	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.050	ug/l	---	ND	0.053	ug/l	---	ND	0.053	ug/l	---
	Hexachlorobenzene	118-74-1	ND	0.020	ug/l	---	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.050	ug/l	---	ND	0.053	ug/l	---	ND	0.053	ug/l	---
	Pentachlorophenol	87-86-5	ND	0.20	ug/l	---	ND	0.21	ug/l	---	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119489-1

		Sample Name:	RW-14D(175-185)-082916				RW-10A(51-61)-082916				RW-10S(120-130)-082916			
		Lab Sample ID:	4601194894				4601194895				4601194896			
		Sample Date:	8/29/2016				8/29/2016				8/29/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other														
	OSW-8082A													
	PCB-1016	12674-11-2	ND	0.40	ug/l	---	ND	0.51	ug/l	---	ND	0.49	ug/l	---
	PCB-1221	11104-28-2	ND	0.40	ug/l	---	ND	0.51	ug/l	---	ND	0.49	ug/l	---
	PCB-1232	11141-16-5	ND	0.40	ug/l	---	ND	0.51	ug/l	---	ND	0.49	ug/l	---
	PCB-1242	53469-21-9	ND	0.40	ug/l	---	ND	0.51	ug/l	---	ND	0.49	ug/l	---
	PCB-1248	12672-29-6	ND	0.40	ug/l	---	ND	0.51	ug/l	---	ND	0.49	ug/l	---
	PCB-1254	11097-69-1	ND	0.40	ug/l	---	ND	0.51	ug/l	---	ND	0.49	ug/l	---
	PCB-1260	11096-82-5	ND	0.40	ug/l	---	ND	0.51	ug/l	---	ND	0.49	ug/l	---
	PCB-1262	37324-23-5	ND	0.40	ug/l	---	ND	0.51	ug/l	---	ND	0.49	ug/l	---
	PCB-1268	11100-14-4	ND	0.40	ug/l	---	ND	0.51	ug/l	---	ND	0.49	ug/l	---
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.40	ug/l	---	ND	0.51	ug/l	---	ND	0.49	ug/l	---
Metals														
	OSW-6020A													
	Aluminum	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	114	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---	ND	40.0	ug/l	---	100	40.0	ug/l	---
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	0.88	2.0	ug/l	J
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Arsenic	7440-38-2	8.8	2.0	ug/l	---	0.86	2.0	ug/l	J	6.6	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	1.1	2.0	ug/l	J	0.79	2.0	ug/l	J	7.2	2.0	ug/l	---
	Barium	7440-39-3	30.9	4.0	ug/l	---	11.4	4.0	ug/l	---	13.1	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	31.6	4.0	ug/l	---	10.8	4.0	ug/l	---	12.5	4.0	ug/l	---
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Calcium	7440-70-2	64800	200	ug/l	---	53300	200	ug/l	---	44400	200	ug/l	---
	Calcium - Dissolved	7440-70-2	93400	200	ug/l	---	55400	200	ug/l	---	44100	200	ug/l	---
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt	7440-48-4	ND	4.0	ug/l	---	4.2	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---	3.4	4.0	ug/l	J	ND	4.0	ug/l	---
	Copper	7440-50-8	1.4	4.0	ug/l	J	2.9	4.0	ug/l	J	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Iron	7439-89-6	26000	120	ug/l	---	648	120	ug/l	---	ND	120	ug/l	---
	Iron - Dissolved	7439-89-6	3990	120	ug/l	J	ND	120	ug/l	---	ND	120	ug/l	---
	Lead	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Magnesium	7439-95-4	14300	200	ug/l	---	15100	200	ug/l	---	ND	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	18600	200	ug/l	---	14200	200	ug/l	---	ND	200	ug/l	---
	Manganese	7439-96-5	608	8.0	ug/l	---	2460	8.0	ug/l	---	ND	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	889	8.0	ug/l	---	2310	8.0	ug/l	---	ND	8.0	ug/l	---
	Nickel	7440-02-0	1.6	4.0	ug/l	J	18.2	4.0	ug/l	---	11.4	4.0	ug/l	---
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---	11.4	4.0	ug/l	---	9.3	4.0	ug/l	---
	Potassium	7440-09-7	3960	200	ug/l	---	2760	200	ug/l	---	21600	200	ug/l	---
	Potassium - Dissolved	7440-09-7	5690	200	ug/l	---	2750	200	ug/l	---	22600	200	ug/l	---
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	2.5	10.0	ug/l	J
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---	2.5	10.0	ug/l	J
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Sodium	7440-23-5	68200	200	ug/l	---	20300	200	ug/l	---	68800	200	ug/l	---
	Sodium - Dissolved	7440-23-5	115000	200	ug/l	---	17400	200	ug/l	---	63600	200	ug/l	---
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Vanadium	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	5.9	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---	5.8	4.0	ug/l	---
	Zinc	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	OSW-7470A													
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---	ND	0.20	ug/l	---
General Chemistry														
	OSW-9012B													
	Cyanide, Total	57-12-5	0.0022	0.010	mg/l	J	ND	0.010	mg/l	---	ND	0.010	mg/l	---
	OSW-9056A													
	Chloride	16887-00-6	43.4	2.40	mg/l	---	3.70	0.12	mg/l	---	11.0	1.20	mg/l	---
	Sulfate	14808-79-8	163	12.0	mg/l	---	50.9	3.00	mg/l	---	143	6.00	mg/l	---
Prep														
	APHA-2320B													
	Alkalinity	E-14506	146	5.0	mg/l	---	185	5.0	mg/l	---	130	5.0	mg/l	---
	Bicarbonate Alkalinity as CaCO3	E-14508	146	5.0	mg/l	---	185	5.0	mg/l	---	ND	5.0	mg/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119489-1

		Sample Name:	RW-9A(85-95)-083016				RW-9(206-216)-083016			
		Lab Sample ID:	4601194897				4601194898			
		Sample Date:	8/30/2016				8/30/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC										
OSW-8260C										
	1,1,1-Trichloroethane	71-55-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,1,2,2-Tetrachloroethane	79-34-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,1,2-Trichloroethane	79-00-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,1-Dichloroethane	75-34-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,1-Dichloroethene	75-35-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,2,3-Trichlorobenzene	87-61-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,2,4-Trichlorobenzene	120-82-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,2-Dichlorobenzene	95-50-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,2-Dichloroethane	107-06-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,2-Dichloropropane	78-87-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,3-Dichlorobenzene	541-73-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	1,4-Dichlorobenzene	106-46-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	2-Butanone (MEK)	78-93-3	ND	5.0	ug/l	---	ND	5.0	ug/l	---
	2-Hexanone	591-78-6	ND	5.0	ug/l	---	ND	5.0	ug/l	---
	4-Methyl-2-pentanone (MIBK)	108-10-1	ND	5.0	ug/l	---	ND	5.0	ug/l	---
	Acetone	67-64-1	6.7	5.0	ug/l	B	5.1	5.0	ug/l	B
	Benzene	71-43-2	ND	1.0	ug/l	---	0.15	1.0	ug/l	J
	Bromoform	75-25-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Bromomethane	74-83-9	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Carbon disulfide	75-15-0	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Carbon tetrachloride	56-23-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chlorobenzene	108-90-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chlorobromomethane	74-97-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chlorodibromomethane	124-48-1	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chloroethane	75-00-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chloroform	67-66-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Chloromethane	74-87-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	cis-1,2-Dichloroethene	156-59-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	cis-1,3-Dichloropropene	10061-01-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Cyclohexane	110-82-7	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Dichlorobromomethane	75-27-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Dichlorodifluoromethane	75-71-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Ethylbenzene	100-41-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Isopropylbenzene	98-82-8	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Methyl acetate	79-20-9	ND	5.0	ug/l	---	ND	5.0	ug/l	---
	Methyl tert-butyl ether	1634-04-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Methylcyclohexane	108-87-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Methylene Chloride	75-09-2	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Styrene	100-42-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Sulfur dioxide - TIC	7446-09-5								
	Tetrachloroethene	127-18-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Toluene	108-88-3	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	trans-1,2-Dichloroethene	156-60-5	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	trans-1,3-Dichloropropene	10061-02-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Trichloroethene	79-01-6	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Trichlorofluoromethane	75-69-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Vinyl chloride	75-01-4	ND	1.0	ug/l	---	ND	1.0	ug/l	---
	Xylenes, Total	1330-20-7	ND	2.0	ug/l	---	ND	2.0	ug/l	---
OSW-8260CSIM										
	1,2,3-Trichloropropane	96-18-4	ND	0.030	ug/l	---	ND	0.030	ug/l	---
	1,2-Dibromo-3-Chloropropane	96-12-8	ND	0.020	ug/l	---	ND	0.020	ug/l	---
	Ethylene Dibromide	106-93-4	ND	0.020	ug/l	---	ND	0.020	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119489-1

		Sample Name:	RW-9A(85-95)-083016				RW-9(206-216)-083016			
		Lab Sample ID:	4601194897				4601194898			
		Sample Date:	8/30/2016				8/30/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC										
OSW-8270D										
	1,1'-Biphenyl	92-52-4	ND	10	ug/l	---	ND	11	ug/l	---
	1,2,4,5-Tetrachlorobenzene	95-94-3	ND	10	ug/l	---	ND	11	ug/l	---
	2,2'-oxybis[1-chloropropane]	108-60-1	ND	10	ug/l	---	ND	11	ug/l	---
	2,3,4,6-Tetrachlorophenol	58-90-2	ND	10	ug/l	---	ND	11	ug/l	---
	2,4,5-Trichlorophenol	95-95-4	ND	10	ug/l	---	ND	11	ug/l	---
	2,4,6-Trichlorophenol	88-06-2	ND	10	ug/l	---	ND	11	ug/l	---
	2,4-Dichlorophenol	120-83-2	ND	10	ug/l	---	ND	11	ug/l	---
	2,4-Dimethylphenol	105-67-9	ND	10	ug/l	---	ND	11	ug/l	---
	2,4-Dinitrophenol	51-28-5	ND	21	ug/l	---	ND	21	ug/l	---
	2,4-Dinitrotoluene	121-14-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2,6-Dinitrotoluene	606-20-2	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	2-Chloronaphthalene	91-58-7	ND	10	ug/l	---	ND	11	ug/l	---
	2-Chlorophenol	95-57-8	ND	10	ug/l	---	ND	11	ug/l	---
	2-Methylnaphthalene	91-57-6	ND	10	ug/l	UJ	ND	11	ug/l	UJ
	2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	11	ug/l	UJ
	2-Nitroaniline	88-74-4	ND	10	ug/l	---	ND	11	ug/l	---
	2-Nitrophenol	88-75-5	ND	10	ug/l	---	ND	11	ug/l	---
	3,3'-Dichlorobenzidine	91-94-1	ND	10	ug/l	---	ND	11	ug/l	---
	3-Nitroaniline	99-09-2	ND	10	ug/l	---	ND	11	ug/l	---
	4,6-Dinitro-2-methylphenol	534-52-1	ND	21	ug/l	---	ND	21	ug/l	---
	4-Bromophenyl phenyl ether	101-55-3	ND	10	ug/l	---	ND	11	ug/l	---
	4-Chloro-3-methylphenol	59-50-7	ND	10	ug/l	---	ND	11	ug/l	---
	4-Chloroaniline	106-47-8	ND	10	ug/l	---	ND	11	ug/l	---
	4-Chlorophenyl phenyl ether	7005-72-3	ND	10	ug/l	---	ND	11	ug/l	---
	4-Methylphenol	106-44-5	ND	10	ug/l	---	ND	11	ug/l	---
	4-Nitroaniline	100-01-6	ND	10	ug/l	---	ND	11	ug/l	---
	4-Nitrophenol	100-02-7	ND	21	ug/l	---	ND	21	ug/l	---
	Acenaphthene	83-32-9	ND	10	ug/l	---	ND	11	ug/l	---
	Acenaphthylene	208-96-8	ND	10	ug/l	---	ND	11	ug/l	---
	Acetophenone	98-86-2	ND	10	ug/l	---	ND	11	ug/l	---
	Anthracene	120-12-7	ND	10	ug/l	---	ND	11	ug/l	---
	Atrazine	1912-24-9	ND	2.1	ug/l	UJ	ND	2.1	ug/l	UJ
	Benzaldehyde	100-52-7	ND	10	ug/l	---	ND	11	ug/l	---
	Benzenesulfonamide, N-butyl- - TIC	3622-84-2					17	---	ug/l	NJ
	Benzo[g,h,i]perylene	191-24-2	ND	10	ug/l	---	ND	11	ug/l	---
	Benzo[k]fluoranthene	207-08-9	ND	1.0	ug/l	---	ND	1.1	ug/l	---
	Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/l	---	ND	11	ug/l	---
	Bis(2-ethylhexyl) phthalate	117-81-7	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Butyl benzyl phthalate	85-68-7	ND	10	ug/l	---	ND	11	ug/l	---
	Caprolactam	105-60-2	ND	10	ug/l	UJ	ND	11	ug/l	UJ
	Carbazole	86-74-8	ND	10	ug/l	---	ND	11	ug/l	---
	Chrysene	218-01-9	ND	2.1	ug/l	---	ND	2.1	ug/l	---
	Di-n-butyl phthalate	84-74-2	ND	10	ug/l	---	ND	11	ug/l	---
	Di-n-octyl phthalate	117-84-0	ND	10	ug/l	---	ND	11	ug/l	---
	Dibenzofuran	132-64-9	ND	10	ug/l	---	ND	11	ug/l	---
	Diethyl phthalate	84-66-2	ND	10	ug/l	---	ND	11	ug/l	---
	Dimethyl phthalate	131-11-3	ND	10	ug/l	---	ND	11	ug/l	---
	Fluoranthene	206-44-0	ND	10	ug/l	---	ND	11	ug/l	---
	Fluorene	86-73-7	ND	10	ug/l	---	ND	11	ug/l	---
	Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	UJ	ND	1.1	ug/l	UJ
	Hexachlorocyclopentadiene	77-47-4	ND	10	ug/l	---	ND	11	ug/l	---
	Hexachloroethane	67-72-1	ND	1.0	ug/l	---	ND	1.1	ug/l	---
	Isophorone	78-59-1	ND	10	ug/l	---	ND	11	ug/l	---
	N-Nitrosodi-n-propylamine	621-64-7	ND	1.0	ug/l	---	ND	1.1	ug/l	---
	N-Nitrosodiphenylamine	86-30-6	ND	10	ug/l	---	ND	11	ug/l	---
	Naphthalene	91-20-3	ND	10	ug/l	UJ	ND	11	ug/l	UJ
	Nitrobenzene	98-95-3	ND	1.0	ug/l	---	ND	1.1	ug/l	---
	Phenanthrene	85-01-8	ND	10	ug/l	---	ND	11	ug/l	---
	Phenol	108-95-2	ND	10	ug/l	---	ND	11	ug/l	---
	Pyrene	129-00-0	ND	10	ug/l	---	ND	11	ug/l	---
	Unknown - TIC	Tic1	11	---	ug/l	NJ				
	Unknown - TIC	Tic2	7.7	---	ug/l	NJ				
	Unknown - TIC	Tic3								
	Unknown - TIC	Tic4								
	Unknown - TIC	Tic5								
	Unknown - TIC	Tic6								
OSW-8270DSIM										
	Benzo[a]anthracene	56-55-3	ND	0.052	ug/l	---	ND	0.053	ug/l	---
	Benzo[a]pyrene	50-32-8	ND	0.052	ug/l	---	ND	0.053	ug/l	---
	Benzo[b]fluoranthene	205-99-2	ND	0.052	ug/l	---	ND	0.053	ug/l	---
	Bis(2-chloroethyl)ether	111-44-4	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Dibenz(a,h)anthracene	53-70-3	ND	0.052	ug/l	---	ND	0.053	ug/l	---
	Hexachlorobenzene	118-74-1	ND	0.021	ug/l	---	ND	0.021	ug/l	---
	Indeno[1,2,3-cd]pyrene	193-39-5	ND	0.052	ug/l	---	ND	0.053	ug/l	---
	Pentachlorophenol	87-86-5	ND	0.21	ug/l	---	ND	0.21	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119489-1

			Sample Name:	RW-9A(85-95)-083016				RW-9(206-216)-083016			
			Lab Sample ID:	4601194897				4601194898			
			Sample Date:	8/30/2016				8/30/2016			
	Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC Other										
OSW-8082A										
	PCB-1016	12674-11-2	ND	0.47	ug/l	---				
	PCB-1221	11104-28-2	ND	0.47	ug/l	---				
	PCB-1232	11141-16-5	ND	0.47	ug/l	---				
	PCB-1242	53469-21-9	ND	0.47	ug/l	---				
	PCB-1248	12672-29-6	ND	0.47	ug/l	---				
	PCB-1254	11097-69-1	ND	0.47	ug/l	---				
	PCB-1260	11096-82-5	ND	0.47	ug/l	---				
	PCB-1262	37324-23-5	ND	0.47	ug/l	---				
	PCB-1268	11100-14-4	ND	0.47	ug/l	---				
	Polychlorinated biphenyls, Total	1336-36-3	ND	0.47	ug/l	---				
Metals										
OSW-6020A										
	Aluminum	7429-90-5	107	40.0	ug/l	---	62.3	40.0	ug/l	---
	Aluminum - Dissolved	7429-90-5	ND	40.0	ug/l	---				
	Antimony	7440-36-0	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Antimony - Dissolved	7440-36-0	ND	2.0	ug/l	---				
	Arsenic	7440-38-2	3.0	2.0	ug/l	---	2.8	2.0	ug/l	---
	Arsenic - Dissolved	7440-38-2	2.9	2.0	ug/l	---				
	Barium	7440-39-3	11.3	4.0	ug/l	---	59.6	4.0	ug/l	---
	Barium - Dissolved	7440-39-3	10.1	4.0	ug/l	---				
	Beryllium	7440-41-7	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Beryllium - Dissolved	7440-41-7	ND	0.80	ug/l	---				
	Cadmium	7440-43-9	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Cadmium - Dissolved	7440-43-9	ND	2.0	ug/l	---				
	Calcium	7440-70-2	23400	200	ug/l	---	82700	200	ug/l	---
	Calcium - Dissolved	7440-70-2	24000	200	ug/l	---				
	Chromium	7440-47-3	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Chromium - Dissolved	7440-47-3	ND	4.0	ug/l	---				
	Cobalt	7440-48-4	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Cobalt - Dissolved	7440-48-4	ND	4.0	ug/l	---				
	Copper	7440-50-8	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Copper - Dissolved	7440-50-8	ND	4.0	ug/l	---				
	Iron	7439-89-6	405	120	ug/l	---	663	120	ug/l	---
	Iron - Dissolved	7439-89-6	ND	120	ug/l	---				
	Lead	7439-92-1	ND	1.2	ug/l	---	ND	1.2	ug/l	---
	Lead - Dissolved	7439-92-1	ND	1.2	ug/l	---				
	Magnesium	7439-95-4	5710	200	ug/l	---	16300	200	ug/l	---
	Magnesium - Dissolved	7439-95-4	5390	200	ug/l	---				
	Manganese	7439-96-5	35.4	8.0	ug/l	---	316	8.0	ug/l	---
	Manganese - Dissolved	7439-96-5	31.6	8.0	ug/l	---				
	Nickel	7440-02-0	8.2	4.0	ug/l	---	2.3	4.0	ug/l	J
	Nickel - Dissolved	7440-02-0	ND	4.0	ug/l	---				
	Potassium	7440-09-7	2020	200	ug/l	---	16300	200	ug/l	---
	Potassium - Dissolved	7440-09-7	1910	200	ug/l	---				
	Selenium	7782-49-2	ND	10.0	ug/l	---	ND	10.0	ug/l	---
	Selenium - Dissolved	7782-49-2	ND	10.0	ug/l	---				
	Silver	7440-22-4	ND	2.0	ug/l	---	ND	2.0	ug/l	---
	Silver - Dissolved	7440-22-4	ND	2.0	ug/l	---				
	Sodium	7440-23-5	4830	200	ug/l	---	166000	200	ug/l	---
	Sodium - Dissolved	7440-23-5	4500	200	ug/l	---				
	Thallium	7440-28-0	ND	0.80	ug/l	---	ND	0.80	ug/l	---
	Thallium - Dissolved	7440-28-0	ND	0.80	ug/l	---				
	Vanadium	7440-62-2	ND	4.0	ug/l	---	ND	4.0	ug/l	---
	Vanadium - Dissolved	7440-62-2	ND	4.0	ug/l	---				
	Zinc	7440-66-6	ND	16.0	ug/l	---	ND	16.0	ug/l	---
	Zinc - Dissolved	7440-66-6	ND	16.0	ug/l	---				
OSW-7470A										
	Mercury	7439-97-6	ND	0.20	ug/l	---	ND	0.20	ug/l	---
	Mercury - Dissolved	7439-97-6	ND	0.20	ug/l	---				
General Chemistry										
OSW-9012B										
	Cyanide, Total	57-12-5	0.0065	0.010	mg/l	J	0.0068	0.010	mg/l	J
OSW-9056A										
	Chloride	16887-00-6	1.60	0.12	mg/l	---				
	Sulfate	14808-79-8	12.3	0.60	mg/l	---				
Prep										
APHA-2320B										
	Alkalinity	E-14506	81.4	5.0	mg/l	---				
	Bicarbonate Alkalinity as CaCO3	E-14508	81.4	5.0	mg/l	---				

APPENDIX 4

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: TestAmerica - Edison
Laboratory Submittal: 119489-1

	Sample Name:	FB-05-082916				RW-14S(135-155)-082916				RW-14D(175-185)-082916				RW-10A(51-61)-082916				RW-10S(120-130)-082916				RW-9A(85-95)-083016				RW-9(206-216)-083016			
	Lab Sample ID:	4601194892				4601194893				4601194894				4601194895				4601194896				4601194897				4601194898			
	Sample Date:	8/29/2016				8/29/2016				8/29/2016				8/29/2016				8/29/2016				8/30/2016				8/30/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC																													
OSW-8260C																													
Acetone	67-64-1	7.4	5.0	ug/l	B	13	5.0	ug/l	B	15	5.0	ug/l	B	5.0	5.0	ug/l	B	48	5.0	ug/l	B	6.7	5.0	ug/l	B	5.1	5.0	ug/l	B
Bromoform	75-25-2									ND	1.0	ug/l	UJ																
Sulfur dioxide - TIC	7446-09-5																	27	---	ug/l	NJ								
GC/MS SVOC																													
OSW-8270D																													
2,4-Dichlorophenol	120-83-2									ND	10	ug/l	UJ																
2,4-Dimethylphenol	105-67-9									ND	10	ug/l	UJ																
2-Methylnaphthalene	91-57-6	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	11	ug/l	UJ	ND	10	ug/l	UJ	ND	11	ug/l	UJ
2-Methylphenol	95-48-7	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	11	ug/l	UJ	ND	10	ug/l	UJ	ND	11	ug/l	UJ
2-Nitrophenol	88-75-5									ND	10	ug/l	UJ																
4-Bromophenyl phenyl ether	101-55-3									ND	10	ug/l	UJ																
Anthracene	120-12-7									ND	10	ug/l	UJ																
Atrazine	1912-24-9									ND	2.0	ug/l	UJ					ND	2.1	ug/l	UJ	ND	2.1	ug/l	UJ				
Benzenesulfonamide, N-butyl- - TIC	3622-84-2					790	---	ug/l	NJ	1500	---	ug/l	NJ													17	---	ug/l	NJ
Caprolactam	105-60-2	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	11	ug/l	UJ	ND	10	ug/l	UJ	ND	11	ug/l	UJ
Carbazole	86-74-8									ND	10	ug/l	UJ																
Di-n-butyl phthalate	84-74-2									ND	10	ug/l	UJ																
Fluoranthene	206-44-0									ND	10	ug/l	UJ																
Hexachlorobutadiene	87-68-3	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.1	ug/l	UJ	ND	1.1	ug/l	UJ	ND	1.0	ug/l	UJ	ND	1.1	ug/l	UJ
Isophorone	78-59-1									ND	10	ug/l	UJ																
N-Nitrosodiphenylamine	86-30-6									ND	10	ug/l	UJ																
Naphthalene	91-20-3	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	10	ug/l	UJ	ND	11	ug/l	UJ	ND	11	ug/l	UJ	ND	10	ug/l	UJ	ND	11	ug/l	UJ
Unknown - TIC	Tic1					9.5	---	ug/l	NJ	8.3	---	ug/l	NJ									11	---	ug/l	NJ				
Unknown - TIC	Tic2									16	---	ug/l	NJ									7.7	---	ug/l	NJ				
Unknown - TIC	Tic3									10	---	ug/l	NJ																
Unknown - TIC	Tic4									6.5	---	ug/l	NJ																
Unknown - TIC	Tic5									8.8	---	ug/l	NJ																
Unknown - TIC	Tic6									9.1	---	ug/l	NJ																
Metals																													
OSW-6020A																													
Iron - Dissolved	7439-89-6									3990	120	ug/l	J																

APPENDIX 5

September 18, 2016

Tim Roeper
Cornerstone EG
100 Crystal Run Road
Suite 101
Middletown, NY 10941

CADENA project ID: E203361
Project: Ford Ringwood Mines Project
Project number:
Client project scope reference: Sample COC only was used to define project analytical requirements.
Laboratory: TestAmerica - Edison
Laboratory submittal: 119489-1
Sample date: 2016-08-29 2016-08-30
Report received by CADENA: 2016-09-14
Initial Data Verification completed by CADENA: 2016-09-18

The following minor QC exceptions or missing information were noted:

TBK - GCMS VOC TRIP blanks had detections above the RL for the following analytes: ACETONE. The following client sample results should be considered to be non-detect at the concentration reported and qualified with B flags: ACETONE - samples -002, -003, -004, -005, -006, -007, -008. NOTE: Sample dilution factors are not included when assigning qualification based on trip blank detections.

MSD - GCMS VOC sample -004 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased low for the following analytes: BROMOFORM. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

TIC - GCMS VOC, GCMS SVOC Tentatively Identified Compounds (TIC's) detected results should be considered to be estimated and qualified with NJ flags.

LCS - GCMS SVOC QC batch 388379 LCS recoveries were outliers biased low for the following analytes: CAPROLACTAM, 2-METHYLPHENOL, NAPHTHALENE, HEXACHLOROBUTADIENE, 2-METHYLPHENOL. The following client sample results should be considered to be estimated and qualified with J flags if detected or UJ flags if non-detect: CAPROLACTAM, 2-METHYLPHENOL, NAPHTHALENE, HEXACHLOROBUTADIENE, 2-METHYLPHENOL - samples -002, -003, -004, -005, -006, -007, -008.

MSD - GCMS SVOC sample -004 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased low for the following analytes: MULTIPLE - SEE QAR TABLE ATTACHED. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

MSD - METALS sample -004 MS and MSD recovery outliers or one recovery along with the MS/MSD RPD were outliers with the recovery biased low for the following analytes: DISSOLVED IRON. Client sample results for these analytes should be considered to be estimated and qualified with a J flag if detected and UJ flags if non-detect.

GCMS VOC QC batch 388349, GCMS SVOC QC batch 388379, GCMS SVOC-SIM QC batch 388366 CCV response outliers as noted in the laboratory submittal case narrative were not used to qualify client sample results as part of this level 2 data package verification review.

GCMS SVOC QC batch 388379 LCS surrogate recovery outliers did not result in qualification of client sample data.

PCB QC batch 388507 LCS recoveries were outliers biased high for the following analytes: AROCLOR 1260. Associated client sample results were non-detect so qualification was not required based on these high bias QC outliers.

PCB sample -004 MS or MSD recoveries but not both or RPD only were outliers for AROCLOR 1016, AROCLOR 1260 so client sample results were not qualified based on these QC outliers alone.

METALS sample -004 MS and or MSD recovery outliers were not used to qualify results for SODIUM, CALCIUM, MANGANESE, MAGNESIUM, POTASSIUM due to high levels of these target analytes in the original sample relative to the spike concentration (4X rule).

SULFATE sample -006 MS or MSD recoveries but not both or RPD only were outliers so client sample results were not qualified based on these QC outliers alone.

SULFATE sample -006 duplicate RPD outliers were not used to qualify results since the sample duplicate value was considered to be estimated since it was above the upper calibration range of the instrument and qualified with an E flag by the lab.

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

7 Water sample(s) were analyzed for GCMS VOC, GCMS SVOC, GC Other, Metals, General Chemistry and MISC parameter(s). 1 Trip blank was analyzed for GCMS VOC parameters.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, LCS/LCD RPD, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

Qualifiers added during verification have been added to the electronic data which is available for download from the CADENA CLMS. Refer to the attached table of analytical results that have been qualified during verification.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory analytical report access the CADENA CLMS at http://clms.cadenaco.com/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
J-	The result is an estimated quantity, but the result may be biased low.
JB	NON-DETECT AT THE CONCENTRATION REPORTED AND ESTIMATED
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
JUB	NON-DETECT AT THE REPORTING LIMIT AND ESTIMATED
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CU 460-119489 Chain of Custody

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

Page ____ of ____

Name (for report and invoice) Tim Roeper	Samplers Name (Printed) John Kreiger / Dan Wheeler	Site/Project Identification Ringwood Mine	
Company Cornerstone Env. Group	P. O. # 140802-015	State (Location of site): NJ: ☒ NY: ☐ Other:	
Address 100 Crystal Run Rd Suite 101	Analysis Turnaround Time: Standard ☒	Regulatory Program:	DKQP: ☐
City Middletown State NY 10941	Rush Charges Authorized For: 2 Week ☐ 1 Week ☐ Other ☐		LAB USE ONLY Project No: Job No.: 119489
Phone 845-695-0200 Fax			

Sample Identification	Date	Time	Matrix	No. of Cont.	TCL VOC + TICs 8260B	TCL SVOC + 8270C	TAL Metals Filtered 6010B 7470A	PCBs 8082A	Alkalinity 2320B	Chloride	Sulfate	Cyanide 9012B	TAL Metals Unfiltered 6010B 7470A	Sample Numbers
TB-09-082916	08/29/16	-	BW	3	X									-1
FB-05-082916	08/29/16	0720	BW	13	X	X	X	X	X	X	X	X	X	-2
RW-MS (135-155)-082916	08/29/16	0845	GW	13	X	X	X	X	X	X	X	X	X	-3
RW-MD (175-185)-082916	08/29/16	0940	GW	13	X	X	X	X	X	X	X	X	X	-4
RW-MD (175-185)-082916-MS	08/29/16	0940	GW	13	X	X	X	X	X	X	X	X	X	-4
RW-MD (175-185)-082916-MSD	08/29/16	0940	GW	13	X	X	X	X	X	X	X	X	X	-4
RW-10A (51-61)-082916	08/29/16	1220	GW	13	X	X	X	X	X	X	X	X	X	-5
RW-10S (120-130)-082916	08/29/16	1430	GW	13	X	X	X	X	X	X	X	X	X	-6
RW-9A (85-95)-083016	08/30/16	0750	GW	13	X	X	X	X	X	X	X	X	X	-7
RW-9 (206-216)-083016	08/30/16	0945	GW	7	X	X	-					X	X	-8
Preservation Used: 1 = ICE, 2 = HCl, 3 = H_2SO_4, 4 = HNO_3, 5 = NaOH Soil:														
6 = Other ____, 7 = Other ____ Water:														

Special Instructions: DO NOT REPORT 1,4 DIOXANE FOR VOCS AND SVOCS Water Metals Filtered (Yes/No)? ____

	Relinquished by	Company	Date / Time	Received by	Company
1	Daniel Wheeler	Cornerstone	8/30/16 1515	Luisa Arieta	TA
2	Luisa Arieta	TA	8/30/16 1930	Kelly Kunsch	TA 8/30/16 1930
3					
4					

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132). TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578) NOCs #7 1.2, 1.6, 1.0

9/14/2016

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
SOW available?				**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**	**2009**
Scope validation criteria referenced				**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**	**CLP-2001 organics, CLP-1992 inorganics**
Lab certifications required				**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**	**New Jersey**
Lab single blind PE samples completed				**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**	**not reviewed**
SAMPLING ISSUES				NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED	NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS															
holding times				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
preservation				**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
temperature of cooler - degrees C				**1.0 to 1.6**	**1.0 to 1.6**	**1.0 to 1.6**	**1.0 to 1.6**	**1.0 to 1.6**	**1.0 to 1.6**	**1.0 to 1.6**	**1.0 to 1.6**	**1.0 to 1.6**	**1.0 to 1.6**	**1.0 to 1.6**	**1.0 to 1.6**
COC discrepancies				**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**	**none**
sample integrity (containers, amounts)				**OK**	**OK**	**limited sample volume sample -008**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
ANALYTICAL/PREP GENERAL				**8260C**	**8260C SIM**	**8270D**	**SVOC-SIM**	**PCB**	**METALS-D**	**METALS -T**	**MERCURY-D**	**MERCURY-T**	**CYANIDE**	**CL/SO4**	**ALK**
prep batch		LAB		**NA**	**NA**	**388379**	**388379**	**388507**	**389010 389040**	**388670 388801**	**389021 389272 388897**	**389018**	**389074**	**NA**	**NA**
prep date		LAB		**NA**	**NA**	**2-Sep**	**2-Sep**	**2-Sep**	**7-Sep**	**9/4, 9/6**	**9/8 9/7 9/6**	**7-Sep**	**7-Sep**	**NA**	**NA**
analytical batch		LAB		**388349**	**3882119**	**388720 388875**	**388366 388728**	**388760**	**389242 389484**	**389030 389774 389976**	**389018 389270**	**389018**	**389260**	**389772 390003 390225**	**389570**
analytical date		LAB		**2-Sep**	**1-Sep**	**6-Sep**	**9/4/2016 9/6**	**6-Sep**	**9/7/2016 9/8**	**9/6/2016 9/10 9/11**	**9/7/2016 9/8**	**7-Sep**	**8-Sep**	**9/11/2016 9/12 9/13**	**9-Sep**
instrument ID		LAB		**CVOAMS13**	**CVOAMS11**	**CBNAMS6**	**CBNAMS9 CBNAMS4**	**CPESTGC11**	**ICPMS1**	**ICPMS2 ICPMS3**	**LEEMAN6**	**LEEMAN6**	**LACHAT3**	**IC A**	**NA**
Instrument Tune		METHOD	tune	**OK**	**OK**	**OK**	**OK**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**
Instrument Performance Checks		METHOD	tailing, degradation	**NA**	**NA**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
ICAL (Initial Calibration Curve)	CURVE ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	**57218**	**57303**	**57491 57159**	**57611 57255**	**56313**	**OK**	**OK**	**OK**	**OK**	**OK**	**57277**	**NA**
ICAL (Initial Calibration Curve)	CURVE DATE	METHOD		**31-Aug**	**19-Aug**	**8/9/2016 8/23**	**8/30/2016 8/15**	**17-Jun**	**OK**	**OK**	**OK**	**OK**	**OK**	**17-Aug**	**NA**

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
ICV (Initial Calibration Verification)		METHOD	max 30%	**OK**	**OK**	**NO RAW DATA**	**NO RAW DATA**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**NA**
CCV (Continuing Calibration Verification)		METHOD	max 20%/50%	**388349-high - TCFM**	**OK**	**388875-HIGH - 11BP, HCCPD, LOW - CAPROLACTAM, ATRAZINE**	**388366-HIGH - B2CEE**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Target Compound Lists		SCOPE/COC		**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Reporting Limits (RL/PQL/LOQ) compliant		SCOPE	1.0 ug/l	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
Blanks-method/calibration	method blank	NFG		**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
LCS (Laboratory Control Spikes)		lab control limits	by method	**OK**	**OK**	**388379-LOW-NAP, 2MN, 2MP, HCBD, CAPROLACTAM**	**OK**	**388507-HIGH-1016, 1260**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**	**OK**
MS/MSD (Matrix Spikes)		lab control limits	by method	**SAMP-04-LOW BF-MS/MSD**	**NONE**	**SAMP-004 LOW-MS/MSD-24DNT(RPD), 2MP, 33DCB, 2CP,2NP,24DMP,24DCP,NAP,ISOPHORONE, HCBD,2MN,NNDPA,4BPPE,HCB,ANTHRACENE,CARBAZOLE,DNBP,FLUORANTHENE,CAPROLACTAM,ATRAZINE, B2CEM,B2CEE**	**NONE**	**SAMP-04 MSD HIGH 1016/1260**	**SAMP-04 - 4X-MN,NA,MG,K,CA MS LOW-FE**	**SAMP-04 - 4X-NA,MG,CA,FE**	**OK**	**OK**	**OK**	**SAMP-06-SO4 MSD HIGH- ALSO OVER RANGE**	**NA**
Sample duplicates		lab control limits	NA	**NA**	**NA**	**NA**	**NA**	**NA**	**OK**	**OK**	**OK**	**OK**	**NA**	**OK**	**OK**
Internal standard reponses/RRT		METHOD	50-200%	**OK**	**OK**	**OK**	**OK**	**1 INTERNAL STANDARD - ALL OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Surrogate recoveries		lab control limits	SVOC BN surrogates	**OK**	**OK**	**LCS388379-1 outlier-acid low no qual**	**CCV 1 BN SURR HIGH**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Qualitative criteria met		METHOD		**OK**	**OK**	**OK**	**OK**	**OK**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

VALIDATED DATA	sub item	criteria reference	general comments	VOC by GCMS	VOC by GCMS-SIM	SVOC by GCMS	SVOC by GCMS-SIM	PCB	Metals by ICP/Mass Spectroscopy(D)	Metals by ICP/Mass Spectroscopy(T)	Merucry (Cold Vapor)(D)	Mercury(Cold Vapor)(T)	TOTAL CYANIDE (AUTOMATED COLORIMETRIC, WITH OFF-LINE DISTILLATION)	Inorganic Ions by IC	Alkalinity
PROJECT SCOPE/LAB REQUIREMENTS				**8260C**	**8260C SIM**	**8270D**	**8270D SIM**	**8082A**	**6020A**	**6020A**	**7470A**	**7470A**	**9012B**	**9056**	**SM 2320B**
TICS (Tentatively Identified Compounds)		METHOD		YES	NO	YES	NO	NA	NA	NA	NA	NA	NA	NA	NA
TIC blanks		NFG		NA	NA	NA	NO	NA	NA	NA	NA	NA	NA	NA	NA
Trip blanks		NFG		ACETONE	ND	NA	NO	NA	NA	NA	NA	NA	NA	NA	NA
Field blanks		NFG		OK	OK	NA	NO	NA	NA	NA	NA	NA	NA	NA	NA
Field duplicates		SCOPE		NA	NA	NA	NO	NA	NA	NA	NA	NA	NA	NA	NA
Post Digestion Spikes (PDS)		METHOD		NA	NA	NA	NA	NA	OK	OK	NA	NA	NA	NA	NA
Serial Dilution (SD)		METHOD		NA	NA	NA	NA	NA	OK	OK	NA	NA	NA	NA	NA
CRQL checks performed?		SCOPE		NA	NA	NA	NA	NA	OK	OK	OK	OK	NA	NA	NA
E flagging required		LAB		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GENERAL QC TRACKING															
Control Limits		SCOPE	see above	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB	LAB
Certificates of Analysis for primary standards		VENDOR	required for NIST trace	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED	NOT PROVIDED
Working/Intermediate standard prep calculations		LAB	prep log	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Prep technique		not specified	VARIES	5030	5030	3510C	3510C	3510C	3010A	3010A	NA	NA	NA	NA	NA
Prep sample volumes/mass		not specified	VARIES	5	5	250	250	250	50 10	50 10	50 30	30	5	NA	50
OVERALL							NO								
Data Reportable?				YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Comments (other)						LVE/HVI - 250ML/2ML-5UL	LVE/HVI - 250ML/2ML-5UL	LVE - 250 ML							

E-Mail Date: 2016-09-30
E-Mail To: tim.roeper@cornerstoneeg.com
cc:

U.S. Mail: Tim Roeper
Cornerstone Environmental Group
100 Crystal Run Road, Suite 101
Middletown, NY 10941

ANALYTICAL DATA VALIDATION REPORT
Ringwood Mines/Landfill
Ford Motor Company
CLIENT PROJECT NUMBER – 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED AUGUST 2016
SUBMITTAL #: L1625725

PREPARED BY:
CADENA, INC.
1099 Highland Drive
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Date: 2016-09-30
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LISTS OF APPNEDICES

(Following Text)

LIST OF ATTACHMENTS

1.1 INTRODUCTION

The following document details an assessment of the analytical data reported by ALPHA Analytical Laboratory Mansfield and Westborough MA the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date	Collection Time	OSW-8270D
L1625725-01	FB-1-081616	8/16/2016		X
L1625725-02	OB-17-081616	8/16/2016		X
L1625725-03	OB-18-081616	8/16/2016		X
L1625725-04	OB-10-081616	8/16/2016		X
L1625725-05	OB-16-081616	8/16/2016		X
L1625725-06	OB-28-081616	8/16/2016		X
L1625725-07	DUP-1-081616	8/16/2016		X
L1625725-08	OB-29-081616	8/16/2016		X
L1625725-09	OB-13-081616	8/16/2016		X
L1625725-10	OB-14A-081616	8/16/2016		X
L1625725-11	OB-14B-081616	8/16/2016		X
L1625725-12	OB-24-081616	8/16/2016		X
L1625725-13	RW-16-081616	8/16/2016		X
L1625725-14	OB-03-081616	8/16/2016		X

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	***Reference Method***	***AnalyteListing***
Semi-Volatile Organics	OSW-8270D/SIM - ISOTOPE DILUTION	1,4-Dioxane only

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.

R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.2 VALIDATION QUALIFIER EXECUTIVE

SUMMARY <u>VALIDATION SUMMARY</u>

<u>GCMS SVOC/SIM</u>

The following observations **DID NOT** result in qualification but were noted during the validation review:

<u>GCMS SVOC-SIM</u>

Sample L1625725-11 was spiked with 1.0 ml of surrogate instead of the expected 0.5 ml. As expected the lab Quantitation Report indicates twice the normal 1,4-dioxane-d8 surrogate response with a percent recovery of 54%. Since in this case the surrogate doubles as the Internal Standard which is used to normalize the 1,4-dioxane concentration, the initial raw data indicated the sample concentration was half what would be expected for the 1,4-dioxane target analyte response at 0.14 ug/L. Upon request by the validator the data was manually re-calculated by the lab based on the known internal standard concentration (1000ng/ml instead of 500ng/ml) to generate the corrected surrogate recovery of 27% (previously 54%) and 1,4-dioxane concentration of 0.28ug/L. Data qualification was not required based on this laboratory protocol non-conformance but revised lab report was generated and CLMS database updated with a revised lab EDD.

Sample RW-155 (110-120) – 082416 was collected and analyzed in triplicate as L1626817-04, -05, and -06, and ran as the MS/MSD on L1626817-05.

CLARIFICATION - Issues arose finding the calibration curve identification, located possibly only in the Table of Contents and the analytical batch identification was derived from reviewing the sequence table. Although the data package was well organized and title pages were helpful, the raw data Quant reports were not intuitive for recognizing method blank, LCS and other QC analyses.

MANUAL INTEGRATION – No “before” manual integration chromatograms were available for the 1,4-dioxane peaks that were flagged as being manually integrated, only the post integration chromatograms.

GENERAL METHODOLOGY – Laboratory used GCMS SVOC method 8270D-SIM with method 3510C prep. The 1,4-dioxane analyte concentration was quantitated against the 1,4- dioxane-D8 surrogate which was also used as the internal standard. Method is considered to be isotope dilution however the "surrogate as internal standard" technique is not considered to be the industry standard quantitation approach. This would be considered to be a "results corrected for percent recovery" quantification technique so data generated using these calculations would not be comparable to field sample results generated by conventional internal standard quantification techniques (expected bias would be high when using this quantification approach).

Analysis did not follow the referenced SW-846 8270D Method and merits a statement of modification. Introducing the internal standard, 1,4-dioxane-d8 prior to sample extraction prevents using the 50% to 200% IS recovery rule. The rule is therefore applied only to the surrogates associated with samples that had internal standards injected prior to analysis, and this data is provided in the Level 4, Form 8 Internal Standard and RT summary table. It is not known if the State of New Jersey or an associated accreditation body has approved this modification.

CONFORMANCE - NON-CONFORMANCE SUMMARY QUESTIONAIRE – Line item #7 stated "No" when a client specific MS/MSD was included in the data set.

VERIFICATION SUMMARY

No level 2 data package was available for review prior to receipt and processing of the level 4 data package.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

2.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D -SIM analysis with ISOTOPE DILUTION– GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below

The target analyte list was defined by the client-project as 1,4-dioxane.

2.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

2.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

2.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response. See executive summary for information concerning quantitation technique associated with internal standards.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were quantitated against the 1,4-dichlorobenzene-d4 internal standard and were within the established laboratory control limits unless noted otherwise in verification/validation summary. Note: surrogate analyte responses (1,4-dioxane-D8) were also used as internal standards.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) were prepared and analyzed for the target analyte SVOCs. The LCS recoveries and LCS/LCSD RPD were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

NOTE: MS/MSD QC Samples were not analyzed as part of this QC batch.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirements.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

3.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

.

EPA Sample Holding Time and Preservation Requirements

Parameter	***Reference Method***	***Matrix***	***Preservation & Storage***	***Holding Times***
Semi-volatile Organics by GCMS	OSW-8270D-SIM	Water	Refrigeration 0-6$_{o}$C	7days 40 days Analysis

3.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

4.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

5.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories-Mansfield
Laboratory Submittal: L1625725

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS SVOC SIM	Comment
L1625725-01	FB-1-081616	8/16/2016		X	
L1625725-02	OB-17-081616	8/16/2016		X	
L1625725-03	OB-18-081616	8/16/2016		X	
L1625725-04	OB-10-081616	8/16/2016		X	
L1625725-05	OB-16-081616	8/16/2016		X	
L1625725-06	OB-28-081616	8/16/2016		X	
L1625725-07	DUP-1-081616	8/16/2016		X	
L1625725-08	OB-29-081616	8/16/2016		X	
L1625725-09	OB-13-081616	8/16/2016		X	
L1625725-10	OB-14A-081616	8/16/2016		X	
L1625725-11	OB-14B-081616	8/16/2016		X	
L1625725-12	OB-24-081616	8/16/2016		X	
L1625725-13	RW-16-081616	8/16/2016		X	
L1625725-14	OB-03-081616	8/16/2016		X	

APPENDIX 2

(Lab submittal table of contents)

Table of Contents

Table of Contents

APPENDIX 3

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1625725

	Sample Name:	FB-1-081616				OB-17-081616				OB-18-081616				OB-10-081616				OB-16-081616			
	Lab Sample ID:	L1625725-01				L1625725-02				L1625725-03				L1625725-04				L1625725-05			
	Sample Date:	8/16/2016				8/16/2016				8/16/2016				8/16/2016				8/16/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS SVOC																					
OSW-8270C/D-SIM																					
1,4-DIOXANE	123-91-1	ND	0.163	ug/l	---	17.5	0.163	ug/l	---	ND	0.16	ug/l	---	0.172	0.142	ug/l	---	ND	0.156	ug/l	---

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1625725

		Sample Name:	OB-28-081616				DUP-1-081616				OB-29-081616				OB-13-081616				OB-14A-081616			
		Lab Sample ID:	L1625725-06				L1625725-07				L1625725-08				L1625725-09				L1625725-10			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016				8/16/2016				8/16/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS SVOC																					
OSW-8270C/D-SIM																					
1,4-DIOXANE	123-91-1	ND	0.167	ug/l	---	ND	0.16	ug/l	---	0.156	0.147	ug/l	---	ND	0.15	ug/l	---	ND	0.167	ug/l	---

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1625725

		Sample Name:	OB-14B-081616				OB-24-081616				RW-16-081616				OB-03-081616			
		Lab Sample ID:	L1625725-11				L1625725-12				L1625725-13				L1625725-14			
		Sample Date:	8/16/2016				8/16/2016				8/16/2016				8/16/2016			
Analyte	**Cas No.**		**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS SVOC																		
OSW-8270C/D-SIM																		
1,4-DIOXANE	123-91-1		0.28	0.147	ug/l	---	ND	0.15	ug/l	---	ND	0.15	ug/l	---	ND	0.147	ug/l	---

APPENDIX 4

APPENDIX 5

(NOTE: Initial LEVEL 2 Laboratory data package was not required or received for this submittal, so Ford verification report is not available)

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

NEW JERSEY CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Date Rec'd in Lab: 8/18/16

ALPHA Job #: L1625725

Client Information

Client: Cornerstone
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845-695-0200
Fax:
Email:

Project Information

Project Name: Ringwood Mine / Landfill
Project Location: Ringwood, NJ
Project #: 140802-015
(Use Project name as Project #)
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time

Standard
Rush (only if pre approved)
Due Date:
# of Days:

Deliverables

NJ Full / Reduced
EQuIS (1 File)
EQuIS (4 File)
Other

Regulatory Requirement

SRS Residential/Non Residential
SRS Impact to Groundwater
NJ Ground Water Quality Standards
NJ IGW SPLP Leachate Criteria
Other

Billing Information

Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes
Petroleum Product:

These samples have been previously analyzed by Alpha

For EPH, selection is REQUIRED:
Category 1
Category 2

For VOC, selection is REQUIRED:
1,4-Dioxane
8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

1,4-DIOXANE SIM-PPB

Sample Filtration
Done
Lab to do

Preservation
Lab to do

(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	1,4-DIOXANE SIM-PPB	Sample Specific Comments
~~24607~~ 25725 .01	FB-1-081616	08/16/16	0900	BW	JG	X	
.02	OB-17-081616	08/16/16	0950	GW	JG	X	
.03	OB-18-081616	08/16/16	1010	GW	DW	X	
.04	OB-10-081616	08/16/16	1000	GW	RL	X	
.05	OB-16-081616	08/16/16	1100	GW	JG	X	
.06	OB-28-081616	08/16/16	1205	GW	DW	X	
.07	DUP-1-081616	08/16/16	1200	GW	DW	X	
.08	OB-29-081616	08/16/16	1140	GW	RL	X	
.09	OB-13-081616	08/16/16	1400	GW	RL	X	
.09	OB-13-081616-MS	08/16/16	1400	GW	RL	X	

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code:
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/17/16 0804	AAL-8/17/16	09:04
AAL-8/17/16	1800	Tom Tobin	8-17-16 1800
Tom Tobin	8-17-16 2245		8/17/16 2245
	8/18/16 0235	Al Williams	8-18-16 02:35
Al Williams	8-18-16 03:35		8/18/16 03:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 8/18/16

ALPHA Job #: L1625725

Client Information
Client: Cornerstone
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845-695-0200
Fax:
Email:

Project Information
Project Name: Ringwood Mine / Landfill
Project Location: Ringwood, NJ
Project #: 140802-015
(Use Project name as Project #)
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information
☐ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Please specify Metals or TAL.

ANALYSIS
A2-14-DIOXANESIM-RB

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2-14-DIOXANESIM-RB	Sample Specific Comments
25725.09	OB-13-081616-MSD	08/16/16	1400	GW	RL	X	
.10	OB-14A-081616	08/16/16	1430	GW	JG	X	
.11	OB-14B-081616	08/16/16	1435	GW	DW	X	
.12	OB-24-081616	08/16/16	1540	GW	JG	X	
.13	RW-16-081616	08/16/16	1545	GW	DW	X	
.14	OB-03-081616	08/16/16	1610	GW	RL	X	

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	A
Preservative	A

Relinquished By:	Date/Time	Received By:	Date/Time
	8/17/16 09:04		8/17/16 05:04
	8-17-16 1800		8-17-16 1800
	8-17-16 2245		8/18/16 2245
	8/18/16 0235	AE Williams	8/18/16 02:35
AE Williams	8/18/16 03:35		8/18/16 03:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

ATTACHMENT B

VALIDATION CHECK LIST SUMMARY

VALIDATED DATA	sub item	criteria reference	general observations	GCMS SVOC SIM
PROJECT SCOPE/LAB REQUIREMENTS				
SOW available?				**2009**
Scope validation criteria referenced				**CLP-2001 organics, CLP-1992 inorganics**
Lab certifications required				**New Jersey**
Lab single blind PE samples completed				**NOT AVAILABLE**
SAMPLING ISSUES				NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS				
holding times				**OK**
preservation				**OK**
temperature of cooler - degrees C				**<6.0**
COC discrepancies				**OK**
sample integrity (containers, amounts)				**OK**
ANALYTICAL/PREP GENERAL				
prep batch		LAB		**WG924185**
prep date		LAB		**19-Aug**
analytical batch		LAB		**WG924327**
analytical date		LAB		**8/19/2016, 08/20/2016**
instrument ID		LAB		**BNA6**
Instrument Tune		METHOD	tune	**OK**
Instrument Performance Checks		METHOD	tailing, degradation	**NA**
ICAL (Initial Calibration Curve)	CURVE ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	**ICAL12751**
ICAL (Initial Calibration Curve)	CURVE DATE	METHOD		**8/10/2016, 9/7/2016**
ICV (Initial Calibration Verification)		METHOD	max 30%	**OK**
CCV (Continuing Calibration Verification)		METHOD	max 20%/50%	**OK**
Target Compound Lists		SCOPE/COC		**1,4-dioxane**
Reporting Limits (RL/PQL/LOQ) compliant		SCOPE	1.0 ug/l	**0.147-183 ug/l**
Blanks- method/calibration	method blank	NFG		**OK**
LCS (Laboratory Control Spikes)		lab control limits	by method	**40-140%, 30%**
MS/MSD (Matrix Spikes)		lab control limits	by method	**40-140%, 30%**
Sample duplicates		lab control limits	NA	**OK**
Internal standard reponses/RRT		METHOD	50-200%	**see report - executive summary**
Surrogate recoveries		lab control limits	1,4-dioxane-d8	**OK**
Qualitative criteria met		METHOD		**OK**
TICS (Tentatively Identified Compounds)		METHOD		**NA**
TIC blanks		NFG		**NA**
Trip blanks		NFG		**NA**
Field blanks		NFG		**NA**
Field duplicates		SCOPE		**OK**
Post Digestion Spikes (PDS)		METHOD		**NA**
Serial Dilution (SD)		METHOD		**NA**
CRQL checks performed?		SCOPE		**NA**
E flagging required		LAB		**NA**
GENERAL QC TRACKING				
Control Limits		SCOPE	see above	**LABORATORY**
Certificates of Analysis for primary standards		VALIDATOR		**NOT PROVIDED**
Working/Intermediate standard prep calculations		VALIDATOR	prep log	**OK**
Prep technique		not specified	VARIES	**3510C**
Prep sample volumes/mass		not specified	VARIES	**500**
OVERALL				
Data Reportable?				**YES - results revised for sample -011**

E-Mail Date: 2016-09-25
E-Mail To: tim.roeper@cornerstoneeg.com
cc:

U.S. Mail: Tim Roeper
Cornerstone Environmental Group
100 Crystal Run Road, Suite 101
Middletown, NY 10941

ANALYTICAL DATA VALIDATION REPORT
Ringwood Mines/Landfill
Ford Motor Company
CLIENT PROJECT NUMBER – 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED AUGUST 2016
SUBMITTAL #: L1625892

PREPARED BY:
CADENA, INC.
1099 Highland Drive
Ann Arbor, MI 48108
Telephone: 517-819-0356
Fax: 734-975-6709
Contact: Jim Tomalia (jtomalia@cadenaco.com)
Date: 2016-09-25
www.CADENACO.com

TABLE OF CONTENTS

LISTS OF APPNEDICES

(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by ALPHA Analytical Laboratory Mansfield and Westborough MA the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date	Collection Time	OSW-8270D
L1625892-01	OB-30C-081716	8/17/2016		X
L1625892-02	OB-33-081716	8/17/2016		X
L1625892-03	OB-12-081716	8/17/2016		X
L1625892-04	OB-30B-081716	8/17/2016		X
L1625892-05	OB-15B-081716	8/17/2016		X
L1625892-06	OB-2-081716	8/17/2016		X
L1625892-07	OB-32-081716	8/17/2016		X
L1625892-08	OB-11R-081716	8/17/2016		X
L1625892-09	OB-31-081716	8/17/2016		X
L1625892-10	SC-2-081716	8/17/2016		X
L1625892-11	OB-27-081716	8/17/2016		X
L1625892-12	OB-19-081716	8/17/2016		X
L1625892-13	OB-4-081716	8/17/2016		X

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	***Reference Method***	***AnalyteListing***
Semi-Volatile Organics	OSW-8270D/SIM - ISOTOPE DILUTION	1,4-Dioxane only

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.

R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

GCMS SVOC/SIM

No additional qualifications were made based on the level 4 data package validation review.

The following observations **DID NOT** result in qualification but were noted during the validation review:

GCMS SVOC-SIM

BATCH ID's – only one batch ID was used for both prep (method 3510C) and analysis (method 8270D) in the lab report and EDD submittal. QC batch association had to be made by date and in reference to the analytical sequence and prep sequence logs.

MANUAL INTEGRATION – No "before" manual integration chromatograms were available for the 1,4-dioxane peaks that were flagged as being manually integrated, only the post integration chromatograms.

GENERAL METHODOLOGY – Laboratory used GCMS SVOC method 8270D-SIM with method 3510C prep. The 1,4-dioxane analyte concentration was quantitated against the 1,4-dioxane-D8 surrogate which was also used as the internal standard. Method is considered to be isotope dilution however the "surrogate as internal standard" technique is not considered to be the industry standard quantitation approach. This would be considered to be a "results corrected for percent recovery" quantification technique so data generated using these calculations would not be comparable to field sample results generated by conventional internal standard quantification techniques (higher bias would be expected using this quantification approach).

Analysis did not follow the referenced SW-846 8270D Method and merits a statement of modification. Introducing the internal standard, 1,4-dioxane-d8 prior to sample extraction prevents using the 50% to 200% IS recovery rule for that internal standard. The rule is therefore applied only to the surrogates associated with samples that had internal standards injected at analysis, and this data is provided in the Level 4, Form 8 Internal Standard and RT summary table. The status of lab specific State of New Jersey or associated accreditation body approval associated with this quantitation approach for 1,4-dioxane should be confirmed.

VERIFICATION SUMMARY

No level 2 data package was available for review prior to receipt and processing of the level 4 data package.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

2.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D -SIM analysis with ISOTOPE DILUTION– GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below

The target analyte list was defined by the client-project as 1,4-dioxane.

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

2.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

2.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response. See executive summary for information concerning quantitation technique associated with internal standards.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were quantitated against the 1,4-dichlorobenzene-d4 internal standard and were within the established laboratory control limits unless noted otherwise in verification/validation summary. Note: surrogate analyte responses (1,4-dioxane-D8) were also used as internal standards.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) were prepared and analyzed for the target analyte SVOCs. The LCS recoveries and LCS/LCSD RPD were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

NOTE: MS/MSD QC samples were not analyzed as part of this QC batch.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

3.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	***Reference Method***	***Matrix***	***Preservation & Storage***	***Holding Times***
Semi-volatile Organics by GCMS	OSW-8270D-SIM	Water	Refrigeration 0-6$_{o}$C	7days Extraction 40 days Analysis

3.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

4.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

5.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories-Mansfield
Laboratory Submittal: L1625892

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS SVOC SIM
L1625892-01	OB-30C-081716	8/17/2016		X
L1625892-02	OB-33-081716	8/17/2016		X
L1625892-03	OB-12-081716	8/17/2016		X
L1625892-04	OB-30B-081716	8/17/2016		X
L1625892-05	OB-15B-081716	8/17/2016		X
L1625892-06	OB-2-081716	8/17/2016		X
L1625892-07	OB-32-081716	8/17/2016		X
L1625892-08	OB-11R-081716	8/17/2016		X
L1625892-09	OB-31-081716	8/17/2016		X
L1625892-10	SC-2-081716	8/17/2016		X
L1625892-11	OB-27-081716	8/17/2016		X
L1625892-12	OB-19-081716	8/17/2016		X
L1625892-13	OB-4-081716	8/17/2016		X

APPENDIX 2
(lab submittal table of contents)

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APPENDIX 3

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1625892

		Sample Name:	OB-30C-081716				OB-33-081716				OB-12-081716				OB-30B-081716				OB-15B-081716				OB-2-081716			
		Lab Sample ID:	L1625892-01				L1625892-02				L1625892-03				L1625892-04				L1625892-05				L1625892-06			
		Sample Date:	8/17/2016				8/17/2016				8/17/2016				8/17/2016				8/17/2016				8/17/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC																									
OSW-8270C/D-SIM																									
1,4-DIOXANE	123-91-1	0.11	0.153	ug/l	J	ND	0.153	ug/l	---	ND	0.147	ug/l	---	0.266	0.147	ug/l	---	ND	0.156	ug/l	---	ND	0.153	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1625892

		Sample Name:	OB-32-081716				OB-11R-081716				OB-31-081716				SC-2-081716				OB-27-081716				OB-19-081716			
		Lab Sample ID:	L1625892-07				L1625892-08				L1625892-09				L1625892-10				L1625892-11				L1625892-12			
		Sample Date:	8/17/2016				8/17/2016				8/17/2016				8/17/2016				8/17/2016				8/17/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC																									
OSW-8270C/D-SIM																									
1,4-DIOXANE	123-91-1	0.422	0.153	ug/l	---	5.97	0.147	ug/l	---	1.9	0.144	ug/l	---	ND	0.127	ug/l	---	6.47	0.15	ug/l	---	0.878	0.156	ug/l	---

Analytical Results Summary

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1625892

Sample Name: OB-4-081716
Lab Sample ID: L1625892-13
Sample Date: 8/17/2016

Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC					
OSW-8270C/D-SIM					
1,4-DIOXANE	123-91-1	0.079	0.153	ug/l	J

APPENDIX 4
QAR TABLE NOT REQUIRED
FOR THIS SUBMITTAL

APPENDIX 5

(NOTE: Initial LEVEL 2 Laboratory data package was not required or received for this submittal so Ford standard verification report is not available)

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

NEW JERSEY CHAIN OF CUSTODY

ALPHA Laboratories

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 8/19/16

ALPHA Job #: L1625892

Client Information

Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information

Project Name: Ford - Ringwood
Project Location: Ringwood, NJ
Project #: 140802-015
(Use Project name as Project #) ☐
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4-Dioxane SIM - PDB	Sample Specific Comments
25892.01	OB-30C-081716	8/17/16	1030	GW	JG	✓	
.02	OB-33-081716	8/17/16	1105	GW	DW	✓	
.03	OB-12-081716	8/17/16	1110	GW	RL	✓	
.04	OB-30B-081716	8/17/16	1145	GW	JG	✓	
.05	OB-15B-081716	8/17/16	1230	GW	DW	✓	
.06	OB-2-081716	8/17/16	1250	GW	RL	✓	
.07	OB-32-081716	8/17/16	1330	GW	JG	✓	
.08	OB-11R-081716	8/17/16	1430	GW	DW	✓	
.09	OB-31-081716	8/17/16	1445	GW	JG	✓	
.10	SC-2-081716	8/17/16	1500	GW	RL	✓	

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/18/16 07:58		8/18/16 07:58
	8/18/16		8/19/16
	8/19/16 0350		8/19/16 0350

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 8/19/16

ALPHA Job #: L1625892

Client Information

Client: Cornerstone Engr. Group
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information

Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #: 140802-015
(Use Project name as Project #) ☐
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4 Dioxane SIM - PAB	Sample Specific Comments
25892.11	OB-27-081716	8/17/16	1605	GW	DW	✓	
.12	OB-19-081716	8/17/16	1720	GW	DW	✓	
.13	OB-4-081716	8/17/16	1735	GW	RL	✓	

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/18/16 07:58		8/18/16 07:58
	8/18/16 1621		8/18/16 1621
			8/19/16 0000
	8/19/16 0330		8/19/16 0330

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	sub item	criteria reference	general observations	GCMS SVOC SIM
PROJECT SCOPE/LAB REQUIREMENTS				
SOW available?				**2009**
Scope validation criteria referenced				**CLP-2001 organics, CLP-1992 inorganics**
Lab certifications required				**New Jersey**
Lab single blind PE samples completed				**NOT AVAILABLE**
SAMPLING ISSUES				NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS				
holding times				**OK**
preservation				**OK**
temperature of cooler - degrees C				**<4**
COC discrepancies				**OK**
sample integrity (containers, amounts)				**OK**
ANALYTICAL/PREP GENERAL				
prep batch		LAB		**WG924460**
prep date		LAB		**20-Aug**
analytical batch		LAB		**WG924876**
analytical date		LAB		**8/22 8/23**
instrument ID		LAB		**BNA6**
Instrument Tune		METHOD	tune	**OK**
Instrument Performance Checks		METHOD	tailing, degradation	**NA**
ICAL (Initial Calibration Curve)	CURVE ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	**28-Nov**
ICAL (Initial Calibration Curve)	CURVE DATE	METHOD		**10-Aug**
ICV (Initial Calibration Verification)		METHOD	max 30%	**OK**
CCV (Continuing Calibration Verification)		METHOD	max 20%/50%	**OK**
Target Compound Lists		SCOPE/COC		**1,4-dioxane**
Reporting Limits (RL/PQL/LOQ) compliant		SCOPE	1.0 ug/l	**0.4 ug/l adjusted to sample volume**
Blanks- method/calibration	method blank	NFG		**OK**
LCS (Laboratory Control Spikes)		lab control limits	by method	**40-160%, 20%**
MS/MSD (Matrix Spikes)		lab control limits	by method	**NO MS IN BATCH**
Sample duplicates		lab control limits	NA	**NA**
Internal standard reponses/RRT		METHOD	50-200%	**see executive summary**
Surrogate recoveries		lab control limits	SVOC BN surrogates	**OK**
Qualitative criteria met		METHOD		**OK**
TICS (Tentatively Identified Compounds)		METHOD		**NA**
TIC blanks		NFG		**NA**
Trip blanks		NFG		**NA**
Field blanks		NFG		**NA**
Field duplicates		SCOPE		**NA**
Post Digestion Spikes (PDS)		METHOD		**NA**
Serial Dilution (SD)		METHOD		**NA**
CRQL checks performed?		SCOPE		**NA**
E flagging required		LAB		**NA**
GENERAL QC TRACKING				
Control Limits		SCOPE	see above	**LABORATORY**
Certificates of Analysis for primary standards		VALIDATOR		**NOT PROVIDED**
Working/Intermediate standard prep calculations		VALIDATOR	prep log	**NOT PROVIDED**
Prep technique		not specified	VARIES	**3510C**
Prep sample volumes/mass		not specified	VARIES	**500 ml target**
OVERALL				
Data Reportable?				**YES**

E-Mail Date: 2016-09-27
E-Mail To: tim.roeper@cornerstoneeg.com
cc:

U.S. Mail: Tim Roeper
Cornerstone Environmental Group
100 Crystal Run Road, Suite 101
Middletown, NY 10941

ANALYTICAL DATA VALIDATION REPORT
Ringwood Mines/Landfill
Ford Motor Company
CLIENT PROJECT NUMBER – 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED AUGUST 2016
SUBMITTAL #: L1626118

PREPARED BY:
CADENA, INC.
1099 Highland Drive
Ann Arbor, MI 48108
Telephone: 517-819-0356
Fax: 734-975-6709
Contact: Jim Tomalia (jtomalia@cadenaco.com)
Date: 2016-09-27
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TABLE OF CONTENTS

LISTS OF APPNEDICES

(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by ALPHA Analytical Laboratory Mansfield and Westborough MA the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date	Collection Time	OSW-8270D
L1626118-01	SC-1-081916	8/19/2016		X
L1626118-02	SW-11-081916	8/19/2016		X
L1626118-03	SW-PAB-00-081916	8/19/2016		X
L1626118-04	SR3-POND-081916	8/19/2016		X
L1626118-05	SR3-SEEP-1-081916	8/19/2016		X
L1626118-06	SR3-SEEP-2-081916	8/19/2016		X
L1626118-07	SW-PAB-01-081916	8/19/2016		X
L1626118-08	SW-PAB-01A-081916	8/19/2016		X
L1626118-09	SW-MRB-00-081916	8/19/2016		X
L1626118-10	SW-NOB-02-081916	8/19/2016		X
L1626118-11	SW-PAB-04-081916	8/19/2016		X
L1626118-12	SW-SP-01-081916	8/19/2016		X
L1626118-13	SW-03-081916	8/19/2016		X
L1626118-14	SW-04-081916	8/19/2016		X
L1626118-15	SW-MRB-03-081916	8/19/2016		X
L1626118-16	SW-MRB-02-081916	8/19/2016		X
L1626118-17	FB-03-081916	8/19/2016		X

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	***Reference Method***	***AnalyteListing***
Semi-Volatile Organics	OSW-8270D/SIM - ISOTOPE DILUTION	1,4-Dioxane only

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.
Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.

NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

GCMS SVOC/SIM

No additional qualifications were made beyond those determined from level 2 verification review as noted below.

The following observations **DID NOT** result in qualification but were noted during the validation review:

GCMS SVOC-SIM

CLARIFICATION - Issues arose finding the calibration curve identification, located possibly only in the Table of Contents and the analytical batch identification was derived from reviewing the sequence table. Although the data package was well organized and title pages were helpful, the raw data Quant reports were not intuitive for recognizing method blank, LCS and other QC analyses.

MANUAL INTEGRATION – No "before" manual integration chromatograms were available for the 1,4-dioxane peaks that were flagged as being manually integrated, only the post integration chromatograms.

GENERAL METHODOLOGY – Laboratory used GCMS SVOC method 8270D-SIM with method 3510C prep. The 1,4-dioxane analyte concentration was quantitated against the 1,4- dioxane-D8 surrogate which was also used as the internal standard. Method is considered to be isotope dilution however the "surrogate as internal standard" technique is not considered to be the industry standard quantitation approach. This would be considered to be a "results corrected for percent recovery" quantification technique so data generated using these calculations would not be comparable to field sample results generated by conventional internal standard quantification techniques (high bias of field sample results would be expected using this quantification technique).

Analysis did not follow the referenced SW-846 8270D Method and merits a statement of modification. Introducing the internal standard, 1,4-dioxane-d8 prior to sample extraction prevents using the 50% to 200% IS recovery rule. The rule is therefore applied only to the surrogates associated with samples that had internal standards injected prior to analysis, and this data is provided in the Level 4, Form 8 Internal Standard and RT summary table. It is not known if the State of New Jersey or an associated accreditation body has approved this modification.

VERIFICATION SUMMARY

No level 2 data package was available for review prior to receipt and processing of the level 4 data package.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

2.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D -SIM analysis with ISOTOPE DILUTION– GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below
The target analyte list was defined by the client-project as 1,4-dioxane.

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

2.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

2.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response. See executive summary for information concerning quantitation technique associated with internal standards.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were quantitated against the 1,4-dichlorobenzene-d4 internal standard and were within the established laboratory control limits unless noted otherwise in verification/validation summary. Note: surrogate analyte responses (1,4-dioxane-D8) were also used as internal standards.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) were prepared and analyzed for the target analyte SVOCs. The LCS recoveries and LCS/LCSD RPD were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

NOTE: MS/MSD QC samples were not analyzed as part of this QC batch.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

3.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	*Reference Method*	*Matrix*	*Preservation & Storage*	*Holding Times*
Semi-volatile Organics by GCMS	OSW-8270D-SIM	Water	Refrigeration 0-6^{o}C	7days Extraction 40 days Analysis

3.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

4.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

5.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1
(Sample Analytical Summary – SAS table)

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories-Mansfield
Laboratory Submittal: L1626118

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS SVOC SIM	Comment
L1626118-01	SC-1-081916	8/19/2016		X	
L1626118-02	SW-11-081916	8/19/2016		X	
L1626118-03	SW-PAB-00-081916	8/19/2016		X	
L1626118-04	SR3-POND-081916	8/19/2016		X	
L1626118-05	SR3-SEEP-1-081916	8/19/2016		X	
L1626118-06	SR3-SEEP-2-081916	8/19/2016		X	
L1626118-07	SW-PAB-01-081916	8/19/2016		X	
L1626118-08	SW-PAB-01A-081916	8/19/2016		X	
L1626118-09	SW-MRB-00-081916	8/19/2016		X	
L1626118-10	SW-NOB-02-081916	8/19/2016		X	
L1626118-11	SW-PAB-04-081916	8/19/2016		X	
L1626118-12	SW-SP-01-081916	8/19/2016		X	
L1626118-13	SW-03-081916	8/19/2016		X	
L1626118-14	SW-04-081916	8/19/2016		X	
L1626118-15	SW-MRB-03-081916	8/19/2016		X	
L1626118-16	SW-MRB-02-081916	8/19/2016		X	
L1626118-17	FB-03-081916	8/19/2016		X	

APPENDIX 2
(Laboratory Level 4 Data Package Table of Contents)

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Table of Contents

APPENDIX 3
(Analytical Results Summary – ARS Table)

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626118

		Sample Name:	SC-1-081916				SW-11-081916				SW-PAB-00-081916				SR3-POND-081916				SR3-SEEP-1-081916			
		Lab Sample ID:	L1626118-01				L1626118-02				L1626118-03				L1626118-04				L1626118-05			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016				8/19/2016				8/19/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC																					
OSW-8270C/D-SIM																					
1,4-DIOXANE	123-91-1	0.905	0.147	ug/l	---	ND	0.16	ug/l	---	ND	0.147	ug/l	---	2.94	0.147	ug/l	---	3.43	0.163	ug/l	---

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626118

		Sample Name:	SR3-SEEP-2-081916				SW-PAB-01-081916				SW-PAB-01A-081916				SW-MRB-00-081916			
		Lab Sample ID:	L1626118-06				L1626118-07				L1626118-08				L1626118-09			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016				8/19/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC																		
OSW-8270C/D-SIM																		
1,4-DIOXANE	123-91-1		3.5	0.16	ug/l	---	1.4	0.15	ug/l	---	2.32	0.147	ug/l	---	ND	0.15	ug/l	---

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626118

		Sample Name:	SW-NOB-02-081916				SW-PAB-04-081916				SW-SP-01-081916				SW-03-081916			
		Lab Sample ID:	L1626118-10				L1626118-11				L1626118-12				L1626118-13			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016				8/19/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC																		
OSW-8270C/D-SIM																		
1,4-DIOXANE	123-91-1		ND	0.15	ug/l	---	0.34	0.16	ug/l	---	ND	0.15	ug/l	---	ND	0.147	ug/l	---

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626118

		Sample Name:	SW-04-081916				SW-MRB-03-081916				SW-MRB-02-081916				FB-03-081916			
		Lab Sample ID:	L1626118-14				L1626118-15				L1626118-16				L1626118-17			
		Sample Date:	8/19/2016				8/19/2016				8/19/2016				8/19/2016			
Analyte	**Cas No.**		**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS SVOC																		
OSW-8270C/D-SIM																		
1,4-DIOXANE	123-91-1		ND	0.147	ug/l	---	ND	0.15	ug/l	---	ND	0.15	ug/l	---	ND	0.15	ug/l	---

APPENDIX 4
(Qualified Analytical Summary table not required for this submittal)

APPENDIX 5

(NOTE: Initial LEVEL 2 Laboratory data package was not required or received for this submittal so Ford standard verification report is not available)

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193
Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 8/20/16

ALPHA Job #: L1626118

Client Information
Client: Cornerstone Env Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 8456950200
Fax:
Email:

Project Information
Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #
(Use Project name as Project #)
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time
Standard [X] Due Date:
Rush (only if pre approved) [ ] # of Days:

Deliverables
- [ ] NJ Full / Reduced
- [ ] EQuIS (1 File) [ ] EQuIS (4 File)
- [ ] Other

Regulatory Requirement
- [ ] SRS Residential/Non Residential
- [ ] SRS Impact to Groundwater
- [ ] NJ Ground Water Quality Standards
- [ ] NJ IGW SPLP Leachate Criteria
- [ ] Other

Billing Information
- [ ] Same as Client Info

PO #

Site Information
Is this site impacted by Petroleum? Yes [ ]

Petroleum Product:

These samples have been previously analyzed by Alpha [ ]

For EPH, selection is REQUIRED:
- [ ] Category 1
- [ ] Category 2

For VOC, selection is REQUIRED:
- [ ] 1,4-Dioxane
- [ ] 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

A2 1,4 Dioxane SIM - PPB

Sample Filtration
- [ ] Done
- [ ] Lab to do

Preservation
- [ ] Lab to do

(Please Specify below)

Total Bottles

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4 Dioxane SIM - PPB	Sample Specific Comments
26618-01	SC-1-081916	8/19/16	11:35	GW		✓	
-02	SW1-081916	8/19/16	08:25	SW		✓	
-03	SW-PAB-00-081916	8/19/16	07:55	SW		✓	
-04	SR3-Pond-081916	8/19/16	10:35	SW		✓	
-05	SR3-Pond-081916 MS	8/19/16	10:35	SW		✓	
-06	SR3-Pond-081916 MSD	8/19/16	10:35	SW		✓	
-07	SR3-SEEP1-081916	8/19/16	11:40	SW		✓	
-08	SR3-SEEP-2-081916	8/19/16	12:10	SW		✓	
-09	SW-PAB-01-081916	8/19/16	13:15	SW		✓	
-10	SW-PAB-01A-081916	8/19/16	13:40	SW		✓	

Container Type: A
Preservative: A

Preservative Code: A = None; B = HCl; C = HNO_3; D = H_2SO_4; E = NaOH; F = MeOH; G = $NaHSO_4$; H = $Na_2S_2O_3$; K/E = Zn Ac/NaOH; O = Other

Container Code: P = Plastic; A = Amber Glass; V = Vial; G = Glass; B = Bacteria Cup; C = Cube; O = Other; E = Encore; D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8-19-16 1500		8-19-16 1500
	8-19-16 1800		8/19/16 1810
			8/19/16 22:40
	8-20-16 02:30		8-20-16 02:30
Ali Williams	8-20-16 03:35		8/20/16 03:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

NEW JERSEY CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 8/20/16

ALPHA Job #: L1626118

Client Information
Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 8456950200
Fax:
Email:

Project Information
Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #
(Use Project name as Project #)
Project Manager: Tina Roeper
ALPHAQuote #:

Turn-Around Time
Standard: X
Rush (only if pre approved): ☐
Due Date:
# of Days:

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information
☐ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Please specify Metals or TAL.

ANALYSIS
A2 1,4 Dioxane SEM - PAH

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottles

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4 Dioxane SEM - PAH	Sample Specific Comments
26118-01	SW-MRB-00-081916		13:05	SW		✓	
-10-12	SW-NOB-02-081916		10:25	SW		✓	
-11-13	SW-PAB-04-081916		10:40	SW		✓	
-12-14	SW-SP-01-081916		11:05	SW		✓	
-13-15	SW-03-081916		12:40	SW		✓	
-14-16	SW-04-081916		12:05	SW		✓	
-15-17	SW-MRB-03-081916		13:40	SW		✓	
-16-18	SW-MRB-02-081916		13:55	SW		✓	
-17-19	FB-03-081916		14:30	BW		✓	
(BB)							

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8-19-16 1500	AAL	8-19-16 1500
	8-19-16 1800		8/19/16 1940
			8/19/16 22:40
	8/20/16 0220	AR Williams	8-20-16 02:20
AR Williams	8-20-16 03:35		8/20/16 03:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	sub item	criteria reference	general observations	GCMS SVOC SIM
PROJECT SCOPE/LAB REQUIREMENTS				
SOW available?				**2009**
Scope validation criteria referenced				**CLP-2001 organics, CLP-1992 inorganics**
Lab certifications required				**New Jersey**
Lab single blind PE samples completed				**NOT AVAILABLE**
SAMPLING ISSUES				NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS				
holding times				**OK**
preservation				**OK**
temperature of cooler - degrees C				**2.0**
COC discrepancies				**OK**
sample integrity (containers, amounts)				**OK**
ANALYTICAL/PREP GENERAL				
prep batch		LAB		**WG925191**
prep date		LAB		**23-Aug**
analytical batch		LAB		**WG925553**
analytical date		LAB		**8/24/2016 8/25**
instrument ID		LAB		**BNA6**
Instrument Tune		METHOD	tune	**OK**
Instrument Performance Checks		METHOD	tailing, degradation	**NA**
ICAL (Initial Calibration Curve)	CURVE ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	**10-Aug**
ICAL (Initial Calibration Curve)	CURVE DATE	METHOD		**OK**
ICV (Initial Calibration Verification)		METHOD	max 30%	**OK**
CCV (Continuing Calibration Verification)		METHOD	max 20%/50%	**OK**
Target Compound Lists		SCOPE/COC		**1,4-dioxane**
Reporting Limits (RL/PQL/LOQ) compliant		SCOPE	1.0 ug/l	**0.147-183 ug/l**
Blanks- method/calibration	method blank	NFG		**OK**
LCS (Laboratory Control Spikes)		lab control limits	by method	**40-140%, 30%**
MS/MSD (Matrix Spikes)		lab control limits	by method	**40-140%, 30%**
Sample duplicates		lab control limits	NA	**NA**
Internal standard reponses/RRT		METHOD	50-200%	**OK**
Surrogate recoveries		lab control limits	SVOC BN surrogates	**OK**
Qualitative criteria met		METHOD		**OK**
TICS (Tentatively Identified Compounds)		METHOD		**NA**
TIC blanks		NFG		**NA**
Trip blanks		NFG		**NA**
Field blanks		NFG		**OK**
Field duplicates		SCOPE		**NA**
Post Digestion Spikes (PDS)		METHOD		**NA**
Serial Dilution (SD)		METHOD		**NA**
CRQL checks performed?		SCOPE		**NA**
E flagging required		LAB		**NA**
GENERAL QC TRACKING				
Control Limits		SCOPE	see above	**LABORATORY**
Certificates of Analysis for primary standards		VALIDATOR		**NOT PROVIDED**
Working/Intermediate standard prep calculations		VALIDATOR	prep log	**OK**
Prep technique		not specified	VARIES	**3510C**
Prep sample volumes/mass		not specified	VARIES	**500**
OVERALL				
Data Reportable?				**YES**

E-Mail Date: 2016-09-26
E-Mail To: tim.roeper@cornerstoneeg.com
cc:

U.S. Mail: Tim Roeper
Cornerstone Environmental Group
100 Crystal Run Road, Suite 101
Middletown, NY 10941

ANALYTICAL DATA VALIDATION REPORT
Ringwood Mines/Landfill
Ford Motor Company
CLIENT PROJECT NUMBER – 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED AUGUST 2016
SUBMITTAL #: L1626448

PREPARED BY:
CADENA, INC.
1099 Highland Drive
Ann Arbor, MI 48108
Telephone: 517-819-0356
Fax: 734-975-6709
Contact: Jim Tomalia (jtomalia@cadenaco.com)
Date: 2016-09-26
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TABLE OF CONTENTS

LISTS OF APPNEDICES

(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by ALPHA Analytical Laboratory Mansfield and Westborough MA the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date	Collection Time	OSW-8270D
L1626448-01	PMP-POND-082216	8/22/2016		X
L1626448-02	DUP-03-082216	8/22/2016		X
L1626448-03	SW-PAB-02-082216	8/22/2016		X
L1626448-04	SW-PAB-03-082216	8/22/2016		X
L1626448-05	SW-PMB-02-082216	8/22/2016		X
L1626448-06	SW-MRB-01-082216	8/22/2016		X
L1626448-07	SW-NOB-01-082216	8/22/2016		X
L1626448-08	RW-12 (55-65)-082216	8/22/2016		X
L1626448-09	RW-2 (452-462)-082216	8/22/2016		X
L1626448-10	RW-2 (279-289)-082216	8/22/2016		X
L1626448-11	CMP-160-082216	8/22/2016		X
L1626448-12	CMP-100-082216	8/22/2016		X
L1626448-13	CMP-275-082216	8/22/2016		X
L1626448-14	CMP-50-082216	8/22/2016		X
L1626448-15	SW-PMB-01-082316	8/23/2016		X

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	***Reference Method***	***AnalyteListing***
Semi-Volatile Organics	OSW-8270D/SIM - ISOTOPE DILUTION	1,4-Dioxane only

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in

	data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

GCMS SVOC/SIM

No additional qualifications were made beyond those determined from level 2 verification review as noted below.

The following observations **DID NOT** result in qualification but were noted during the validation review:

GCMS SVOC-SIM

CLARIFICATION - Issues arose finding the calibration curve identification, located possibly only in the Table of Contents and the analytical batch identification was derived from reviewing the sequence table. Although the data package was well organized and title pages were helpful, the raw data Quant reports were not intuitive for recognizing method blank, LCS and other QC analyses.

MANUAL INTEGRATION – No "before" manual integration chromatograms were available for the 1,4-dioxane peaks that were flagged as being manually integrated, only the post integration chromatograms.

GENERAL METHODOLOGY – Laboratory used GCMS SVOC method 8270D-SIM with method 3510C prep. The 1,4-dioxane analyte concentration was quantitated against the 1,4- dioxane-D8 surrogate which was also used as the internal standard. Method is considered to be isotope dilution however the "surrogate as internal standard" technique is not considered to be the industry standard quantitation approach. This would be considered to be a "results corrected for percent recovery" quantification technique so data generated using these calculations would not be comparable to field sample results generated by conventional internal standard quantification techniques (higher bias for

field sample results would be expected using this quantification technique).

Analysis did not follow the referenced SW-846 8270D Method and merits a statement of modification. Introducing the internal standard, 1,4-dioxane-d8 prior to sample extraction prevents using the 50% to 200% IS recovery rule. The rule is therefore applied only to the surrogates associated with samples that had internal standards injected prior to analysis, and this data is provided in the Level 4, Form 8 Internal Standard and RT summary table. It is not known if the State of New Jersey or an associated accreditation body has approved this modification.

VERIFICATION SUMMARY

No level 2 data package was available for review prior to receipt and processing of the level 4 data package.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

2.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D -SIM analysis with ISOTOPE DILUTION– GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below
The target analyte list was defined by the client-project as 1,4-dioxane.

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

2.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

2.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response. See executive summary for information concerning quantitation technique associated with internal standards.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were quantitated against the 1,4-dichlorobenzene-d4 internal standard and were within the established laboratory control limits unless noted otherwise in verification/validation summary. Note: surrogate analyte responses (1,4-dioxane-D8) were also used as internal standards.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) were prepared and analyzed for the target analyte SVOCs. The LCS recoveries and LCS/LCSD RPD were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

NOTE: MS/MSD QC samples were not analyzed as part of this QC batch.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

3.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	***Reference Method***	***Matrix***	***Preservation & Storage***	***Holding Times***
Semi-volatile Organics by GCMS	OSW-8270D-SIM	Water	Refrigeration 0-6$_{o}$C	7days Extraction 40 days Analysis

3.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

4.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

5.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1
(Sample Analytical Summary – SAS table)

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories-Mansfield
Laboratory Submittal: L1626448

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS SVOC SIM	Comment
L1626448-01	PMP-POND-082216	8/22/2016		X	
L1626448-02	DUP-03-082216	8/22/2016		X	
L1626448-03	SW-PAB-02-082216	8/22/2016		X	
L1626448-04	SW-PAB-03-082216	8/22/2016		X	
L1626448-05	SW-PMB-02-082216	8/22/2016		X	
L1626448-06	SW-MRB-01-082216	8/22/2016		X	
L1626448-07	SW-NOB-01-082216	8/22/2016		X	
L1626448-08	RW-12 (55-65)-082216	8/22/2016		X	
L1626448-09	RW-2 (452-462)-082216	8/22/2016		X	
L1626448-10	RW-2 (279-289)-082216	8/22/2016		X	
L1626448-11	CMP-160-082216	8/22/2016		X	
L1626448-12	CMP-100-082216	8/22/2016		X	
L1626448-13	CMP-275-082216	8/22/2016		X	
L1626448-14	CMP-50-082216	8/22/2016		X	
L1626448-15	SW-PMB-01-082316	8/23/2016		X	

APPENDIX 2
(Laboratory Level 4 Data Package Table of Contents)

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APPENDIX 3
(Analytical Results Summary – ARS Table)

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626448

		Sample Name:	PMP-POND-082216				DUP-03-082216				SW-PAB-02-082216				SW-PAB-03-082216				SW-PMB-02-082216			
		Lab Sample ID:	L1626448-01				L1626448-02				L1626448-03				L1626448-04				L1626448-05			
		Sample Date:	8/22/2016				8/22/2016				8/22/2016				8/22/2016				8/22/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC																					
OSW-8270C/D-SIM																					
1,4-DIOXANE	123-91-1	ND	0.147	ug/l	---	ND	0.147	ug/l	---	1.2	0.147	ug/l	---	0.442	0.147	ug/l	---	ND	0.147	ug/l	---

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626448

	Sample Name:	SW-MRB-01-082216				SW-NOB-01-082216				RW-12 (55-65)-082216				RW-2 (452-462)-082216				RW-2 (279-289)-082216			
	Lab Sample ID:	L1626448-06				L1626448-07				L1626448-08				L1626448-09				L1626448-10			
	Sample Date:	8/22/2016				8/22/2016				8/22/2016				8/22/2016				8/22/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS SVOC																					
OSW-8270C/D-SIM																					
1,4-DIOXANE	123-91-1	ND	0.147	ug/l	---	ND	0.163	ug/l	---	ND	0.163	ug/l	---	0.901	0.183	ug/l	---	11.9	0.163	ug/l	---

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626448

	Sample Name:	CMP-160-082216				CMP-100-082216				CMP-275-082216				CMP-50-082216				SW-PMB-01-082316			
	Lab Sample ID:	L1626448-11				L1626448-12				L1626448-13				L1626448-14				L1626448-15			
	Sample Date:	8/22/2016				8/22/2016				8/22/2016				8/22/2016				8/23/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS SVOC																					
OSW-8270C/D-SIM																					
1,4-DIOXANE	123-91-1	0.0786	0.147	ug/l	J	ND	0.147	ug/l	---	0.163	0.15	ug/l	---	ND	0.147	ug/l	---	ND	0.163	ug/l	---

APPENDIX 4
(Qualified Analytical Summary table not required for this submittal)

APPENDIX 5

(NOTE: Initial LEVEL 2 Laboratory data package was not required or received for this submittal so Ford standard verification report is not available)

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab 8/24/16

ALPHA Job # L1626448

Client Information
Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 845 895 0200
Fax:
Email:

Project Information
Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #
(Use Project name as Project #) ☐
Project Manager: Tim Reaper
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Please specify Metals or TAL.

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information
☐ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

ANALYSIS
A2 1,4 Dioxane SSM - PPB

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4 Dioxane SSM - PPB	Sample Specific Comments
26448-01	PMP-Pond-082216	8/22/16	08:30	SW	RR	✓	
-02	Dup-03-082216	8/22/16	12:00	SW	RR	✓	
-03	SW-PAB-02-082216	8/22/16	14:45	SW	RR	✓	
-04	SW-PAB-03-082216	8/22/16	13:00	SW	RR	✓	
-05	SW-PMB-02-082216	8/22/16	17:45	SW	RR	✓	
-06	SW-MRB-01-082216	8/22/16	16:00	SW	RR	✓	
-07	SW-NOB-01-082216	8/22/16	10:00	SW	RR	✓	
-08	RW-12 (55-65)-082216	8/22/16	16:10	GW	RR	✓	
-09	RW-2 (452-462)-082216	8/22/16	13:00	GW	RR	✓	
-10	RW-2 (279-289)-082216	8/22/16	11:05	GW	RR	✓	

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
			8/24/16 8:40
	8/23/16 1810		8-23-16 1810
	8-23-16 2330		8/24/16 23:30
	8/24/16 0355		8/24/16 03:55

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193

Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 8/24/16

ALPHA Job #: L1626448

Client Information

Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information

Project Name: Ford - Ringwood
Project Location: Ringwood NJ
Project #
(Use Project name as Project #) ☐
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Please specify Metals or TAL.

ANALYSIS

A2 1,4 Dioxane SIM - PPB

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2
-11	CMP-160-082216	8/22/16	13:20	GW	RJ	✓
-12	CMP-100-082216	8/22/16	11:40	GW	RJ	✓
-13	CMP-275-082216	8/22/16	14:50	GW	RJ	✓
-14	CMP-50-082216	8/22/16	10:30	GW	RJ	✓
-15	SW-PMB-01-082316	8/23/16	07:30	SW	RJ	✓

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/23/16 1810		8/23/16 1810
	8-23-16 2330		8-23-16 2312
	8/24/16 0355		8/24/16 03:55

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No. 01-14 HC (rev. 30-Sept-2013)

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	sub item	criteria reference	general observations	GCMS SVOC SIM
PROJECT SCOPE/LAB REQUIREMENTS				
SOW available?				**2009**
Scope validation criteria referenced				**CLP-2001 organics, CLP-1992 inorganics**
Lab certifications required				**New Jersey**
Lab single blind PE samples completed				**NOT AVAILABLE**
SAMPLING ISSUES				NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS				
holding times				**OK**
preservation				**OK**
temperature of cooler - degrees C				**2.3**
COC discrepancies				**OK**
sample integrity (containers, amounts)				**OK**
ANALYTICAL/PREP GENERAL				
prep batch		LAB		**WG926422**
prep date		LAB		**26-Aug**
analytical batch		LAB		**WG927023**
analytical date		LAB		**8/30/2016 8/31**
instrument ID		LAB		**BNA6**
Instrument Tune		METHOD	tune	**OK**
Instrument Performance Checks		METHOD	tailing, degradation	**NA**
ICAL (Initial Calibration Curve)	CURVE ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	**10-Aug**
ICAL (Initial Calibration Curve)	CURVE DATE	METHOD		**OK**
ICV (Initial Calibration Verification)		METHOD	max 30%	**OK**
CCV (Continuing Calibration Verification)		METHOD	max 20%/50%	**OK**
Target Compound Lists		SCOPE/COC		**1,4-dioxane**
Reporting Limits (RL/PQL/LOQ) compliant		SCOPE	1.0 ug/l	**0.147-0.183 ug/l**
Blanks- method/calibration	method blank	NFG		**OK**
LCS (Laboratory Control Spikes)		lab control limits	by method	**40-140%, 30%**
MS/MSD (Matrix Spikes)		lab control limits	by method	**NO MS IN BATCH**
Sample duplicates		lab control limits	NA	**NA**
Internal standard reponses/RRT		METHOD	50-200%	**OK**
Surrogate recoveries		lab control limits	SVOC BN surrogates	**OK**
Qualitative criteria met		METHOD		**OK**
TICS (Tentatively Identified Compounds)		METHOD		**NA**
TIC blanks		NFG		**NA**
Trip blanks		NFG		**NA**
Field blanks		NFG		**NA**
Field duplicates		SCOPE		**OK**
Post Digestion Spikes (PDS)		METHOD		**NA**
Serial Dilution (SD)		METHOD		**NA**
CRQL checks performed?		SCOPE		**NA**
E flagging required		LAB		**NA**
GENERAL QC TRACKING				
Control Limits		SCOPE	see above	**LABORATORY**
Certificates of Analysis for primary standards		VALIDATOR		**NOT PROVIDED**
Working/Intermediate standard prep calculations		VALIDATOR	prep log	**OK**
Prep technique		not specified	VARIES	**3510C**
Prep sample volumes/mass		not specified	VARIES	**500**
OVERALL				
Data Reportable?				**YES**

E-Mail Date: 2016-09-27
E-Mail To: tim.roeper@cornerstoneeg.com
cc:

U.S. Mail: Tim Roeper
Cornerstone Environmental Group
100 Crystal Run Road, Suite 101
Middletown, NY 10941

ANALYTICAL DATA VALIDATION REPORT
Ringwood Mines/Landfill
Ford Motor Company
CLIENT PROJECT NUMBER – 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED AUGUST 2016
SUBMITTAL #: L1626610

PREPARED BY:
CADENA, INC.
1099 Highland Drive
Ann Arbor, MI 48108
Telephone: 517-819-0356
Fax: 734-975-6709
Contact: Jim Tomalia (jtomalia@cadenaco.com)
Date: 2016-09-27
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TABLE OF CONTENTS

LISTS OF APPNEDICES

(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by ALPHA Analytical Laboratory Mansfield and Westborough MA the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date	Collection Time	OSW-8270D
L1626610-01	RW-11D (262-267)-082316	8/23/2016		X
L1626610-02	PMP-AS-180-082316	8/23/2016		X
L1626610-03	PMP-AS-50-082316	8/23/2016		X
L1626610-04	PMP-AS-230-082316	8/23/2016		X
L1626610-05	RW-11S (236-244)-082316	8/23/2016		X
L1626610-06	RW-3DD (125-180)-082316	8/23/2016		X
L1626610-07	RW-3DS (155-160)-082316	8/23/2016		X

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	***Reference Method***	***AnalyteListing***
Semi-Volatile Organics	OSW-8270D/SIM - ISOTOPE DILUTION	1,4-Dioxane only

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the

instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered

	non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

GCMS SVOC/SIM

No additional qualifications were made beyond those determined from level 2 verification review as noted below.

The following observations **DID NOT** result in qualification but were noted during the validation review:

GCMS SVOC-SIM

CLARIFICATION - Issues arose finding the calibration curve identification, located possibly only in the Table of Contents and the analytical batch identification was derived from reviewing the sequence table. Although the data package was well organized and title pages were helpful, the raw data Quant reports were not intuitive for recognizing method blank, LCS and other QC analyses.

MANUAL INTEGRATION – No "before" manual integration chromatograms were available for the 1,4-dioxane peaks that were flagged as being manually integrated, only the post integration chromatograms.

GENERAL METHODOLOGY – Laboratory used GCMS SVOC method 8270D-SIM with method 3510C prep. The 1,4-dioxane analyte concentration was quantitated against the 1,4- dioxane-D8 surrogate which was also used as the internal standard. Method is considered to be isotope dilution however the "surrogate as internal standard" technique is not considered to be the industry standard quantitation approach. This would be considered to be a "results corrected for percent recovery" quantification technique so data generated using these calculations would not be comparable to field sample results generated by conventional internal standard quantification techniques (high bias for field sample results would be expected using this quantification technique).

Analysis did not follow the referenced SW-846 8270D Method and merits a statement of modification. Introducing the internal standard, 1,4-dioxane-d8 prior to sample extraction prevents using the 50% to 200% IS recovery rule. The rule is therefore applied only to the surrogates associated with samples that had internal standards injected prior to analysis, and this data is provided in the Level 4, Form 8 Internal Standard and RT summary table. It is not known if the State of New Jersey or an associated accreditation body has approved this modification.

VERIFICATION SUMMARY

No level 2 data package was available for review prior to receipt and processing of the level 4 data package.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

2.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D -SIM analysis with ISOTOPE DILUTION– GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below

The target analyte list was defined by the client-project as 1,4-dioxane.

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

2.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary.

2.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response. See executive summary for information concerning quantitation technique associated with internal standards.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were quantitated against the 1,4-dichlorobenzene-d4 internal standard and were within the established laboratory control limits unless noted otherwise in verification/validation summary. Note: surrogate analyte responses (1,4-dioxane-D8) were also used as internal standards.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) were prepared and analyzed for the target analyte SVOCs. The LCS recoveries and LCS/LCSD RPD were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

NOTE: MS/MSD QC samples were not analyzed as part of this QC batch.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

3.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	*Reference Method*	*Matrix*	*Preservation & Storage*	*Holding Times*
Semi-volatile Organics by GCMS	OSW-8270D-SIM	Water	Refrigeration 0-6$_o$C	7days Extraction 40 days Analysis

3.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

4.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

5.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1
(Sample Analytical Summary – SAS table)

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories-Mansfield
Laboratory Submittal: L1626610

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS SVOC SIM	Comment
L1626610-01	RW-11D (262-267)-082316	8/23/2016		X	
L1626610-02	PMP-AS-180-082316	8/23/2016		X	
L1626610-03	PMP-AS-50-082316	8/23/2016		X	
L1626610-04	PMP-AS-230-082316	8/23/2016		X	
L1626610-05	RW-11S (236-244)-082316	8/23/2016		X	
L1626610-06	RW-3DD (125-180)-082316	8/23/2016		X	
L1626610-07	RW-3DS (155-160)-082316	8/23/2016		X	

APPENDIX 2
(Laboratory Level 4 Data Package Table of Contents)

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Table of Contents

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APPENDIX 3
(Analytical Results Summary – ARS Table)

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626610

		Sample Name:	RW-11D (262-267)-082316				PMP-AS-180-082316				PMP-AS-50-082316				PMP-AS-230-082316			
		Lab Sample ID:	L1626610-01				L1626610-02				L1626610-03				L1626610-04			
		Sample Date:	8/23/2016				8/23/2016				8/23/2016				8/23/2016			
Analyte	**Cas No.**		**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS SVOC																		
OSW-8270C/D-SIM																		
1,4-DIOXANE	123-91-1		73.4	0.167	ug/l	---	20.3	0.147	ug/l	---	ND	0.147	ug/l	---	146	0.15	ug/l	---

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626610

		Sample Name:	RW-11S (236-244)-082316				RW-3DD (125-180)-082316				RW-3DS (155-160)-082316			
		Lab Sample ID:	L1626610-05				L1626610-06				L1626610-07			
		Sample Date:	8/23/2016				8/23/2016				8/23/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS SVOC													
OSW-8270C/D-SIM													
1,4-DIOXANE	123-91-1	1.08	0.147	ug/l	---	29.2	0.153	ug/l	---	25.1	0.167	ug/l	---

APPENDIX 4
(Qualified Analytical Summary table not required for this submittal)

APPENDIX 5

(NOTE: Initial LEVEL 2 Laboratory data package was not required or received for this submittal so Ford standard verification report is not available)

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193

Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 8/25/16

ALPHA Job #: L1626610

Project Information
- Project Name: Ford - Ringwood
- Project Location: Ringwood, NJ
- Project #: 140802-015
- (Use Project name as Project #): ☐
- Project Manager: Tim Reeper
- ALPHAQuote #:

Turn-Around Time
- Standard: ☒ Due Date:
- Rush (only if pre approved): ☐ # of Days:

Client Information
- Client: Comestar Env. Group
- Address: 100 Crystal Run Rd, Middletown, NY 10941
- Phone: 845 695 0200
- Fax:
- Email:

Deliverables
- ☐ NJ Full / Reduced
- ☐ EQuIS (1 File) ☐ EQuIS (4 File)
- ☐ Other

Billing Information
- ☐ Same as Client Info
- PO #

Regulatory Requirement
- ☐ SRS Residential/Non Residential
- ☐ SRS Impact to Groundwater
- ☐ NJ Ground Water Quality Standards
- ☐ NJ IGW SPLP Leachate Criteria
- ☐ Other

Site Information
- Is this site impacted by Petroleum? Yes ☐
- Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
- ☐ Category 1
- ☐ Category 2

For VOC, selection is REQUIRED:
- ☐ 1,4-Dioxane
- ☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

As 1,4 Dioxane SIM-DW

Sample Filtration
- ☐ Done
- ☐ Lab to do

Preservation
- ☐ Lab to do

(Please Specify below)

Total Bottle

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	As								
26620-01	RW-11D(262-267)-082316	8/23/16	09:05	GW	FR	✓								
-02	PMP-AS-180-082316	8/23/16	10:25	GW	FR	✓								
-03	PMP-AS-50-082316	8/23/16	09:10	GW	FR	✓								
-04	PMP-AS-230-082316	8/23/16	13:25	GW	FR	✓								
-05	RW-11S(236-241)-082316	8/23/16	12:15	GW	FR	✓								
-06	RW-3DD(175-180)-082316	8/23/16	13:25	GW	FR	✓								
-07	RW-3DS(155-160)-082316	8/23/16	15:00	GW	FR	✓								

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
F = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/24/16 07:20	BOBaker	8-24-16 7:20
BOBaker	8-24-16 1810	Tom Tobin	8-24-16 1810
Tom Tobin	8-25-16 0135	BOBaker	8/25/16 01:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	sub item	criteria reference	general observations	GCMS SVOC SIM
PROJECT SCOPE/LAB REQUIREMENTS				
SOW available?				**2009**
Scope validation criteria referenced				**CLP-2001 organics, CLP-1992 inorganics**
Lab certifications required				**New Jersey**
Lab single blind PE samples completed				**NOT AVAILABLE**
SAMPLING ISSUES				NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS				
holding times				**OK**
preservation				**OK**
temperature of cooler - degrees C				**3.7**
COC discrepancies				**OK**
sample integrity (containers, amounts)				**OK**
ANALYTICAL/PREP GENERAL				
prep batch		LAB		**WG926303, WG929215**
prep date		LAB		**26-Aug**
analytical batch		LAB		**WG926828, WG929257**
analytical date		LAB		**8/27/2016 9/7**
instrument ID		LAB		**BNA6**
Instrument Tune		METHOD	tune	**OK**
Instrument Performance Checks		METHOD	tailing, degradation	**NA**
ICAL (Initial Calibration Curve)	CURVE ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	**8/10/2016, 9/7/2016**
ICAL (Initial Calibration Curve)	CURVE DATE	METHOD		**OK**
ICV (Initial Calibration Verification)		METHOD	max 30%	**OK**
CCV (Continuing Calibration Verification)		METHOD	max 20%/50%	**OK**
Target Compound Lists		SCOPE/COC		**1,4-dioxane**
Reporting Limits (RL/PQL/LOQ) compliant		SCOPE	1.0 ug/l	**0.147-183 ug/l**
Blanks- method/calibration	method blank	NFG		**OK**
LCS (Laboratory Control Spikes)		lab control limits	by method	**40-140%, 30%**
MS/MSD (Matrix Spikes)		lab control limits	by method	**NA**
Sample duplicates		lab control limits	NA	**NA**
Internal standard reponses/RRT		METHOD	50-200%	**OK**
Surrogate recoveries		lab control limits	SVOC BN surrogates	**OK**
Qualitative criteria met		METHOD		**OK**
TICS (Tentatively Identified Compounds)		METHOD		**NA**
TIC blanks		NFG		**NA**
Trip blanks		NFG		**NA**
Field blanks		NFG		**NA**
Field duplicates		SCOPE		**NA**
Post Digestion Spikes (PDS)		METHOD		**NA**
Serial Dilution (SD)		METHOD		**NA**
CRQL checks performed?		SCOPE		**NA**
E flagging required		LAB		**NA**
GENERAL QC TRACKING				
Control Limits		SCOPE	see above	**LABORATORY**
Certificates of Analysis for primary standards		VALIDATOR		**NOT PROVIDED**
Working/Intermediate standard prep calculations		VALIDATOR	prep log	**NOT PROVIDED**
Prep technique		not specified	VARIES	**3510C**
Prep sample volumes/mass		not specified	VARIES	**500**
OVERALL				
Data Reportable?				**YES**

REVISED REPORT (2)
REVISION SUMMARY: Additional executive summary narration for sample -06 1,4-dioxane re-analysis.
E-Mail Date: 2016-10-03
E-Mail To: tim.roeper@cornerstoneeg.com
cc:

U.S. Mail: Tim Roeper
Cornerstone Environmental Group
100 Crystal Run Road, Suite 101
Middletown, NY 10941

ANALYTICAL DATA VALIDATION REPORT

Ringwood Mines/Landfill
Ford Motor Company
CLIENT PROJECT NUMBER – 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED AUGUST 2016
SUBMITTAL #: L1626610

PREPARED BY:
CADENA, INC.
1099 Highland Drive
Ann Arbor, MI 48108
Telephone: 517-819-0356
Fax: 734-975-6709
Contact: Jim Tomalia (jtomalia@cadenaco.com)
Date: 2016-10-03
www.CADENACO.com

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LISTS OF APPNEDICES

(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by ALPHA Analytical Laboratory Mansfield and Westborough MA the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date	Collection Time	OSW-8270D
L1626610-01	RW-11D (262-267)-082316	8/23/2016		X
L1626610-02	PMP-AS-180-082316	8/23/2016		X
L1626610-03	PMP-AS-50-082316	8/23/2016		X
L1626610-04	PMP-AS-230-082316	8/23/2016		X
L1626610-05	RW-11S (236-244)-082316	8/23/2016		X
L1626610-06	RW-3DD (125-180)-082316	8/23/2016		X
L1626610-07	RW-3DS (155-160)-082316	8/23/2016		X

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	***Reference Method***	***AnalyteListing***
Semi-Volatile Organics	OSW-8270D/SIM - ISOTOPE DILUTION	1,4-Dioxane only

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the

instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.

UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

GCMS SVOC/SIM

HTQ – SVOC SIM sample -006 re-analysis was re-prepped (extracted) outside of reference holding time by 8 days so the associated result should be considered to be estimated and qualified with a J flag. The original analysis sample -006 1,4-dioxane result was 152 ug/l. This result was not consistent with sample location expectations for 1,4-dioxane so the second of two 500ml sample containers was re-extracted (out of hold) and re-analyzed for 1,4-dioxane with a final reported result of 29.2 ug/l. Validation review of the DPKG-FULL data package did not reveal any QC or contamination issues with the laboratory prep or analysis that would indicate a cause for the high bias in the initial result.

The following observations **DID NOT** result in qualification but were noted during the validation review:

GCMS SVOC-SIM

CLARIFICATION - Issues arose finding the calibration curve identification, located possibly only in the Table of Contents and the analytical batch identification was derived from reviewing the sequence table. Although the data package was well organized and title pages were helpful, the raw data Quant reports were not intuitive for recognizing method blank, LCS and other QC analyses.

MANUAL INTEGRATION – No "before" manual integration chromatograms were available for the 1,4-dioxane peaks that were flagged as being manually integrated, only the post integration chromatograms.

GENERAL METHODOLOGY – Laboratory used GCMS SVOC method 8270D-SIM with method 3510C prep. The 1,4-dioxane analyte concentration was quantitated against the 1,4- dioxane-D8 surrogate which was also used as the internal standard. Method is considered to be isotope dilution however the "surrogate as internal standard" technique is not considered to be the industry standard quantitation approach. This would be considered to be a "results corrected for percent recovery" quantification technique so data generated using these calculations would not be comparable to field sample results generated by conventional internal standard quantification techniques (high bias for field sample results would be expected using this quantification technique).

Analysis did not follow the referenced SW-846 8270D Method and merits a statement of modification. Introducing the internal standard, 1,4-dioxane-d8 prior to sample extraction prevents using the 50% to 200% IS recovery rule. The rule is therefore applied only to

the surrogates associated with samples that had internal standards injected prior to analysis, and this data is provided in the Level 4, Form 8 Internal Standard and RT summary table. It is not known if the State of New Jersey or an associated accreditation body has approved this modification.

VERIFICATION SUMMARY

No level 2 data package was available for review prior to receipt and processing of the level 4 data package.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

2.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D -SIM analysis with ISOTOPE DILUTION– GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below
The target analyte list was defined by the client-project as 1,4-dioxane.

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

2.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary.

2.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response. See executive summary for information concerning quantitation technique associated with internal standards.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were quantitated against the 1,4-dichlorobenzene-d4 internal standard and were within the established laboratory control limits unless noted otherwise in verification/validation summary. Note: surrogate analyte responses (1,4-dioxane-D8) were also used as internal standards.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) were prepared and analyzed for the target analyte SVOCs. The LCS recoveries and LCS/LCSD RPD were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

NOTE: MS/MSD QC samples were not analyzed as part of this QC batch.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

3.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	*Reference Method*	*Matrix*	*Preservation & Storage*	*Holding Times*
Semi-volatile Organics by GCMS	OSW-8270D-SIM	Water	Refrigeration 0-6^{o}C	7days Extraction 40 days Analysis

3.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

4.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

5.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1
(Sample Analytical Summary – SAS table)

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories-Mansfield
Laboratory Submittal: L1626610

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS SVOC SIM	Comment
L1626610-01	RW-11D (262-267)-082316	8/23/2016		X	
L1626610-02	PMP-AS-180-082316	8/23/2016		X	
L1626610-03	PMP-AS-50-082316	8/23/2016		X	
L1626610-04	PMP-AS-230-082316	8/23/2016		X	
L1626610-05	RW-11S (236-244)-082316	8/23/2016		X	
L1626610-06	RW-3DD (125-180)-082316	8/23/2016		X	
L1626610-07	RW-3DS (155-160)-082316	8/23/2016		X	

APPENDIX 2
(Laboratory Level 4 Data Package Table of Contents)

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APPENDIX 3
(Analytical Results Summary – ARS Table)

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626610

		Sample Name:	RW-11D (262-267)-082316				PMP-AS-180-082316				PMP-AS-50-082316				PMP-AS-230-082316			
		Lab Sample ID:	L1626610-01				L1626610-02				L1626610-03				L1626610-04			
		Sample Date:	8/23/2016				8/23/2016				8/23/2016				8/23/2016			
Analyte	**Cas No.**		**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS SVOC																		
OSW-8270C/D-SIM																		
1,4-DIOXANE	123-91-1		73.4	0.167	ug/l	---	20.3	0.147	ug/l	---	ND	0.147	ug/l	---	146	0.15	ug/l	---

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626610

		Sample Name:	RW-11S (236-244)-082316				RW-3DD (125-180)-082316				RW-3DS (155-160)-082316			
		Lab Sample ID:	L1626610-05				L1626610-06				L1626610-07			
		Sample Date:	8/23/2016				8/23/2016				8/23/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC													
OSW-8270C/D-SIM													
1,4-DIOXANE	123-91-1	1.08	0.147	ug/l	---	29.2	0.153	ug/l	J	25.1	0.167	ug/l	---

APPENDIX 4
(Qualified Analytical Summary table)

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626610

Sample Name: RW-3DD (125-180)-082316
Lab Sample ID: L1626610-06
Sample Date: 8/23/2016

Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC					
OSW-8270C/D-SIM					
1,4-DIOXANE	123-91-1	29.2	0.153	ug/l	J

APPENDIX 5

(NOTE: Initial LEVEL 2 Laboratory data package was not required or received for this submittal so Ford standard verification report is not available)

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193

Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 8/25/16

ALPHA Job #: L1626610

Project Information
- Project Name: Ford - Ringwood
- Project Location: Ringwood, NJ
- Project #: 140802-015
- (Use Project name as Project #): ☐
- Project Manager: Tim Reeper
- ALPHAQuote #:

Turn-Around Time
- Standard: ☒ Due Date:
- Rush (only if pre approved): ☐ # of Days:

Client Information
- Client: Comestar Env. Group
- Address: 100 Crystal Run Rd, Middletown, NY 10941
- Phone: 845 695 0200
- Fax:
- Email:

Deliverables
- ☐ NJ Full / Reduced
- ☐ EQuIS (1 File) ☐ EQuIS (4 File)
- ☐ Other

Billing Information
- ☐ Same as Client Info
- PO #

Regulatory Requirement
- ☐ SRS Residential/Non Residential
- ☐ SRS Impact to Groundwater
- ☐ NJ Ground Water Quality Standards
- ☐ NJ IGW SPLP Leachate Criteria
- ☐ Other

Site Information
- Is this site impacted by Petroleum? Yes ☐
- Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
- ☐ Category 1
- ☐ Category 2

For VOC, selection is REQUIRED:
- ☐ 1,4-Dioxane
- ☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

As 1,4 Dioxane SIM-DW

Sample Filtration
- ☐ Done
- ☐ Lab to do

Preservation
- ☐ Lab to do

(Please Specify below)

Total Bottle

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	As								
26620-01	RW-11D(262-267)-082316	8/23/16	09:05	GW	FR	✓								
-02	PMP-AS-180-082316	8/23/16	10:25	GW	FR	✓								
-03	PMP-AS-50-082316	8/23/16	09:10	GW	FR	✓								
-04	PMP-AS-230-082316	8/23/16	13:25	GW	FR	✓								
-05	RW-11S(236-241)-082316	8/23/16	12:15	GW	FR	✓								
-06	RW-3DD(175-180)-082316	8/23/16	13:25	GW	FR	✓								
-07	RW-3DS(155-160)-082316	8/23/16	15:00	GW	FR	✓								

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
F = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/24/16 07:20	BOBaker	8-24-16 7:20
BOBaker	8-24-16 1810	Tom Tobin	8-24-16 1810
Tom Tobin	8-25-16 0135	BOBaker	8/25/16 01:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	sub item	criteria reference	general observations	GCMS SVOC SIM
PROJECT SCOPE/LAB REQUIREMENTS				
SOW available?				**2009**
Scope validation criteria referenced				**CLP-2001 organics, CLP-1992 inorganics**
Lab certifications required				**New Jersey**
Lab single blind PE samples completed				**NOT AVAILABLE**
SAMPLING ISSUES				NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS				
holding times				**sample -06 re-analysis**
preservation				**OK**
temperature of cooler - degrees C				**3.7**
COC discrepancies				**OK**
sample integrity (containers, amounts)				**OK**
ANALYTICAL/PREP GENERAL				
prep batch		LAB		**WG926303, WG929215**
prep date		LAB		**26-Aug and 06-Sept**
analytical batch		LAB		**WG926828, WG929257**
analytical date		LAB		**8/27/2016 9/7**
instrument ID		LAB		**BNA6**
Instrument Tune		METHOD	tune	**OK**
Instrument Performance Checks		METHOD	tailing, degradation	**NA**
ICAL (Initial Calibration Curve)	CURVE ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	**8/10/2016, 9/7/2016**
ICAL (Initial Calibration Curve)	CURVE DATE	METHOD		**OK**
ICV (Initial Calibration Verification)		METHOD	max 30%	**OK**
CCV (Continuing Calibration Verification)		METHOD	max 20%/50%	**OK**
Target Compound Lists		SCOPE/COC		**1,4-dioxane**
Reporting Limits (RL/PQL/LOQ) compliant		SCOPE	1.0 ug/l	**0.147-183 ug/l**
Blanks- method/calibration	method blank	NFG		**OK**
LCS (Laboratory Control Spikes)		lab control limits	by method	**40-140%, 30%**
MS/MSD (Matrix Spikes)		lab control limits	by method	**NA**
Sample duplicates		lab control limits	NA	**NA**
Internal standard reponses/RRT		METHOD	50-200%	**see case narrative**
Surrogate recoveries		lab control limits	SVOC BN surrogates	**OK**
Qualitative criteria met		METHOD		**OK**
TICS (Tentatively Identified Compounds)		METHOD		**NA**
TIC blanks		NFG		**NA**
Trip blanks		NFG		**NA**
Field blanks		NFG		**NA**
Field duplicates		SCOPE		**NA**
Post Digestion Spikes (PDS)		METHOD		**NA**
Serial Dilution (SD)		METHOD		**NA**
CRQL checks performed?		SCOPE		**NA**
E flagging required		LAB		**NA**
GENERAL QC TRACKING				
Control Limits		SCOPE	see above	**LABORATORY**
Certificates of Analysis for primary standards		VALIDATOR		**NOT PROVIDED**
Working/Intermediate standard prep calculations		VALIDATOR	prep log	**NOT PROVIDED**
Prep technique		not specified	VARIES	**3510C**
Prep sample volumes/mass		not specified	VARIES	**500**
OVERALL				
Data Reportable?				**YES**

E-Mail Date: 2016-09-26
E-Mail To: tim.roeper@cornerstoneeg.com
cc:

U.S. Mail: Tim Roeper
Cornerstone Environmental Group
100 Crystal Run Road, Suite 101
Middletown, NY 10941

ANALYTICAL DATA VALIDATION REPORT
Ringwood Mines/Landfill
Ford Motor Company
CLIENT PROJECT NUMBER – 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED AUGUST 2016
SUBMITTAL #: L1626817

PREPARED BY:
CADENA, INC.
1099 Highland Drive
Ann Arbor, MI 48108
Telephone: 517-819-0356
Fax: 734-975-6709
Contact: Jim Tomalia (jtomalia@cadenaco.com)
Date: 2016-09-26
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LISTS OF APPNEDICES

(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by ALPHA Analytical Laboratory Mansfield and Westborough MA the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date	Collection Time	OSW-8270D
L1626817-01	FB-04-082416	8/24/2016		X
L1626817-02	DUP-04-082416	8/24/2016		X
L1626817-03	RW-3-082416	8/24/2016		X
L1626817-04	RW-15S (110-120)-082416	8/24/2016		X
L1626817-05	RW-15S (110-120)-082416 MS	8/24/2016		X
L1626817-06	RW-15S (110-120)-082416 MSD	8/24/2016		X
L1626817-07	RW-15D (127-137)-082416	8/24/2016		X
L1626817-08	RW-4 (333-343)-082416	8/24/2016		X
L1626817-09	RW-4 (393-403)-082416	8/24/2016		X
L1626817-10	RW-4A (113-123)-082416	8/24/2016		X

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	***Reference Method***	***AnalyteListing***
Semi-Volatile Organics	OSW-8270D/SIM - ISOTOPE DILUTION	1,4-Dioxane only

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.

UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

GCMS SVOC/SIM

.

MBK - QC batch WG926574 method blank had a detection below the RL for the following analyte: 1,4-DIOXANE. The following client sample results should be considered be non-detected at the concentration reported and qualified with B flags: -04, -05, and -06.

The following observations **DID NOT** result in qualification but were noted during the validation review:

GCMS SVOC-SIM

Sample RW-155 (110-120) – 082416 was collected and analyzed in triplicate as L1626817-04, -05, and -06, and ran as the MS/MSD on L1626817-05.

CLARIFICATION - Issues arose finding the calibration curve identification, located possibly only in the Table of Contents and the analytical batch identification was derived from reviewing the sequence table. Although the data package was well organized and title pages were helpful, the raw data Quant reports were not intuitive for recognizing method blank, LCS and other QC analyses.

MANUAL INTEGRATION – No "before" manual integration chromatograms were available for the 1,4-dioxane peaks that were flagged as being manually integrated, only the post integration chromatograms.

GENERAL METHODOLOGY – Laboratory used GCMS SVOC method 8270D-SIM with method 3510C prep. The 1,4-dioxane analyte concentration was quantitated against the 1,4- dioxane-D8 surrogate which was also used as the internal standard. Method is considered to be isotope dilution however the "surrogate as internal standard" technique is not considered to be the industry standard quantitation approach. This would be considered to be a "results corrected for percent recovery" quantification technique so

data generated using these calculations would not be comparable to field sample results generated by conventional internal standard quantification techniques (higher bias of field sample results would be expected using this quantification approach).

Analysis did not follow the referenced SW-846 8270D Method and merits a statement of modification. Introducing the internal standard, 1,4-dioxane-d8 prior to sample extraction prevents using the 50% to 200% IS recovery rule. The rule is therefore applied only to the surrogates associated with samples that had internal standards injected prior to analysis, and this data is provided in the Level 4, Form 8 Internal Standard and RT summary table. It is not known if the State of New Jersey or an associated accreditation body has approved this modification.

VERIFICATION SUMMARY

No level 2 data package was available for review prior to receipt and processing of the level 4 data package.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

2.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D -SIM analysis with ISOTOPE DILUTION– GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below
The target analyte list was defined by the client-project as 1,4-dioxane.

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

2.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

2.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response. See executive summary for information concerning quantitation technique associated with internal standards.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were quantitated against the 1,4-dichlorobenzene-d4 internal standard and were within the established laboratory control limits unless noted otherwise in verification/validation summary. Note: surrogate analyte responses (1,4-dioxane-D8) were also used as internal standards.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) were prepared and analyzed for the target analyte SVOCs. The LCS recoveries and LCS/LCSD RPD were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

NOTE: MS/MSD QC samples were not analyzed as part of this QC batch.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

3.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	*Reference Method*	*Matrix*	*Preservation & Storage*	*Holding Times*
Semi-volatile Organics by GCMS	OSW-8270D-SIM	Water	Refrigeration 0-6^{o}C	7days Extraction 40 days Analysis

3.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

4.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

5.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1
(Sample Analytical Summary – SAS table)

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361

Laboratory: ALPHA Laboratories-Mansfield
Laboratory Submittal: L1626817

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS SVOC SIM	Comment
L1626817-01	FB-04-082416	8/24/2016		X	
L1626817-02	DUP-04-082416	8/24/2016		X	
L1626817-03	RW-3-082416	8/24/2016		X	
L1626817-04	RW-15S (110-120)-082416	8/24/2016		X	
L1626817-05	RW-15S (110-120)-082416 MS	8/24/2016		X	
L1626817-06	RW-15S (110-120)-082416 MSD	8/24/2016		X	
L1626817-07	RW-15D (127-137)-082416	8/24/2016		X	
L1626817-08	RW-4 (333-343)-082416	8/24/2016		X	
L1626817-09	RW-4 (393-403)-082416	8/24/2016		X	
L1626817-10	RW-4A (113-123)-082416	8/24/2016		X	

APPENDIX 2
(Laboratory Level 4 Data Package Table of Contents)

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APPENDIX 3
(Analytical Results Summary – ARS Table)

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626817

		Sample Name:	FB-04-082416				DUP-04-082416				RW-3-082416				RW-15S (110-120)-082416				RW-15S (110-120)-082416 MS			
		Lab Sample ID:	L1626817-01				L1626817-02				L1626817-03				L1626817-04				L1626817-05			
		Sample Date:	8/24/2016				8/24/2016				8/24/2016				8/24/2016				8/24/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC																					
OSW-8270C/D-SIM																					
1,4-DIOXANE	123-91-1	ND	0.153	ug/l	---	29	0.147	ug/l	---	29.1	0.16	ug/l	---	0.277	0.147	ug/l	B	0.21	0.147	ug/l	B

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626817

		Sample Name:	RW-15S (110-120)-082416 MSD				RW-15D (127-137)-082416				RW-4 (333-343)-082416				RW-4 (393-403)-082416				RW-4A (113-123)-082416			
		Lab Sample ID:	L1626817-06				L1626817-07				L1626817-08				L1626817-09				L1626817-10			
		Sample Date:	8/24/2016				8/24/2016				8/24/2016				8/24/2016				8/24/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC																						
OSW-8270C/D-SIM																						
1,4-DIOXANE	123-91-1		0.229	0.16	ug/l	B	0.86	0.147	ug/l	---	ND	0.153	ug/l	---	ND	0.16	ug/l	---	ND	0.147	ug/l	---

APPENDIX 4
(Qualified Analytical Summary table)

Qualified Results Summary

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626817

		Sample Name:	RW-15S (110-120)-082416				RW-15S (110-120)-082416 MS				RW-15S (110-120)-082416 MSD			
		Lab Sample ID:	L1626817-04				L1626817-05				L1626817-06			
		Sample Date:	8/24/2016				8/24/2016				8/24/2016			
Analyte	Cas No.	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC													
OSW-8270C/D-SIM													
1,4-DIOXANE	123-91-1	0.277	0.147	ug/l	B	0.21	0.147	ug/l	B	0.229	0.16	ug/l	B

APPENDIX 5

(NOTE: Initial LEVEL 2 Laboratory data package was not required or received for this submittal so Ford standard verification report is not available)

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

NEW JERSEY CHAIN OF CUSTODY

ALPHA
Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 8/26/16

ALPHA Job #: L1626817

Client Information
Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown, NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information
Project Name: Ford - Ringwood
Project Location: Ringwood, NJ
Project #: 140802-015
(Use Project name as Project #) ☐
Project Manager: Tim Rooper
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information
☐ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Please specify Metals or TAL.

ANALYSIS
A2 1,4 Dioxane SIM - 8260

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2	Sample Specific Comments
26817.01	FB-04-082416	8/24/16	07:45	RW	RR	✓	
02	Dup-04-082416	8/24/16	12:00	GW	RR	✓	
03	RW-3-082416	8/24/16	09:35	GW	RR	✓	
04	RW-15S(110-120)-082416	8/24/16	11:50	GW	RR	✓	
05	RW-15S(110-120)-082416 MS	8/24/16	11:50	GW	RR	✓	
06	RW-15S(110-120)-082416 MSD	8/24/16	11:50	GW	RR	✓	
07	RW-15D(127-137)-082416	8/24/16	13:40	GW	RR	✓	
08	RW-4(333-343)-082416	8/24/16	14:50	GW	RR	✓	
09	RW-4(393-403)-082416	8/24/16	15:35	GW	RR	✓	
10	RW-4A(113-123)-082416	8/24/16	16:10	GW	RR	✓	

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8/25/16 8:32		8/25/16 8:32
	8/25/16 1800		8/25/16 1800
	8/26/16 0900		8/26/16 0900
	8/26/16 10:35		8/26/16 10:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	sub item	criteria reference	general observations	GCMS SVOC SIM
PROJECT SCOPE/LAB REQUIREMENTS				
SOW available?				**2009**
Scope validation criteria referenced				**CLP-2001 organics, CLP-1992 inorganics**
Lab certifications required				**New Jersey**
Lab single blind PE samples completed				**NOT AVAILABLE**
SAMPLING ISSUES				NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS				
holding times				**OK**
preservation				**OK**
temperature of cooler - degrees C				**2.0**
COC discrepancies				**OK**
sample integrity (containers, amounts)				**OK**
ANALYTICAL/PREP GENERAL				
prep batch		LAB		**WG926247**
prep date		LAB		**27-Aug**
analytical batch		LAB		**WG926975**
analytical date		LAB		**8/29/2016 8/30**
instrument ID		LAB		**BNA6**
Instrument Tune		METHOD	tune	**OK**
Instrument Performance Checks		METHOD	tailing, degradation	**NA**
ICAL (Initial Calibration Curve)	CURVE ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	**10-Aug**
ICAL (Initial Calibration Curve)	CURVE DATE	METHOD		**OK**
ICV (Initial Calibration Verification)		METHOD	max 30%	**OK**
CCV (Continuing Calibration Verification)		METHOD	max 20%/50%	**OK**
Target Compound Lists		SCOPE/COC		**1,4-dioxane**
Reporting Limits (RL/PQL/LOQ) compliant		SCOPE	1.0 ug/l	**0.147-183 ug/l**
Blanks- method/calibration	method blank	NFG		**DETECT**
LCS (Laboratory Control Spikes)		lab control limits	by method	**40-140%, 30%**
MS/MSD (Matrix Spikes)		lab control limits	by method	**40-140%, 30%**
Sample duplicates		lab control limits	NA	**OK**
Internal standard reponses/RRT		METHOD	50-200%	**OK**
Surrogate recoveries		lab control limits	SVOC BN surrogates	**OK**
Qualitative criteria met		METHOD		**OK**
TICS (Tentatively Identified Compounds)		METHOD		**NA**
TIC blanks		NFG		**NA**
Trip blanks		NFG		**NA**
Field blanks		NFG		**OK**
Field duplicates		SCOPE		**OK**
Post Digestion Spikes (PDS)		METHOD		**NA**
Serial Dilution (SD)		METHOD		**NA**
CRQL checks performed?		SCOPE		**NA**
E flagging required		LAB		**NA**
GENERAL QC TRACKING				
Control Limits		SCOPE	see above	**LABORATORY**
Certificates of Analysis for primary standards		VALIDATOR		**NOT PROVIDED**
Working/Intermediate standard prep calculations		VALIDATOR	prep log	**NOT PROVIDED**
Prep technique		not specified	VARIES	**3510C**
Prep sample volumes/mass		not specified	VARIES	**500**
OVERALL				
Data Reportable?				**YES**

E-Mail Date: 2016-09-26
E-Mail To: tim.roeper@cornerstoneeg.com
cc:

U.S. Mail: Tim Roeper
Cornerstone Environmental Group
100 Crystal Run Road, Suite 101
Middletown, NY 10941

ANALYTICAL DATA VALIDATION REPORT
Ringwood Mines/Landfill
Ford Motor Company
CLIENT PROJECT NUMBER – 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED AUGUST 2016
SUBMITTAL #: L1626902

PREPARED BY:
CADENA, INC.
1099 Highland Drive
Ann Arbor, MI 48108
Telephone: 517-819-0356
Fax: 734-975-6709
Contact: Jim Tomalia (jtomalia@cadenaco.com)
Date: 2016-09-26
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TABLE OF CONTENTS

LISTS OF APPNEDICES

(Following Text)

LIST OF ATTACHMENTS

1.0 INTRODUCTION

The following document details an assessment of the analytical data reported by ALPHA Analytical Laboratory Mansfield and Westborough MA the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date	Collection Time	OSW-8270D
L1626902-01	RW-4A(62-72)-082516	8/25/2016		X
L1626902-02	RW-13(71-91)-082516	8/25/2016		X
L1626902-03	RW-12(130-140)-082516	8/25/2016		X
L1626902-04	RW-8(204-214)-082516	8/25/2016		X
L1626902-05	RW-8(163-173)-082516	8/25/2016		X
L1626902-06	RW-13(100-120)-082516	8/25/2016		X
L1626902-07	RW-13(150-170)-082616	8/26/2016		X
L1626902-08	DUP-05-082616	8/26/2016		X
L1626902-09	RW-10(185-195)-082616	8/26/2016		X
L1626902-10	RW-10A(75-85)-082616	8/26/2016		X

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	***Reference Method***	***AnalyteListing***
Semi-Volatile Organics	OSW-8270D/SIM - ISOTOPE DILUTION	1,4-Dioxane only

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.

UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

GCMS SVOC/SIM

No additional qualifications were made beyond those determined from level 2 verification review as noted below.

The following observations **DID NOT** result in qualification but were noted during the validation review:

GCMS SVOC-SIM

CLARIFICATION - Issues arose finding the calibration curve identification, located possibly only in the Table of Contents and the analytical batch identification was derived from reviewing the sequence table. Although the data package was well organized and title pages were helpful, the raw data Quant reports were not intuitive for recognizing method blank, LCS and other QC analyses.

SEQUENCE TABLE SAMPLE ID's – The method blank, LCS and LCD names were designated on the Work Group Report and sample quants as WG927825-1, -2, and -3, but were listed on the Analytical Log File as WG926918-1, -2, and -3.

MANUAL INTEGRATION – No "before" manual integration chromatograms were available for the 1,4-dioxane peaks that were flagged as being manually integrated, only the post integration chromatograms.

GENERAL METHODOLOGY – Laboratory used GCMS SVOC method 8270D-SIM with method 3510C prep. The 1,4-dioxane analyte concentration was quantitated against the 1,4- dioxane-D8 surrogate which was also used as the internal standard. Method is considered to be isotope dilution however the "surrogate as internal standard" technique is not considered to be the industry standard quantitation approach. This would be considered to be a "results corrected for percent recovery" quantification technique so data generated using these calculations would not be comparable to field sample results generated by conventional internal standard quantification techniques (high bias of field results would be expected using this quantification approach).

Analysis did not follow the referenced SW-846 8270D Method and merits a statement of modification. Introducing the internal standard, 1,4-dioxane-d8 prior to sample extraction prevents using the 50% to 200% IS recovery rule. The rule is therefore applied only to the surrogates associated with samples that had internal standards injected prior to analysis, and this data is provided in the Level 4, Form 8 Internal Standard and RT summary table. It is not known if the State of New Jersey or an associated accreditation body has approved this modification.

VERIFICATION SUMMARY

No level 2 data package was available for review prior to receipt and processing of the level 4 data package.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

2.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D -SIM analysis with ISOTOPE DILUTION– GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below
The target analyte list was defined by the client-project as 1,4-dioxane.

3.1 CALIBRATION – GAS CHROMATOGRAPH/MASS SPECTROMETER (GC/MS) SVOCs

2.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

2.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

2.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response. See executive summary for information concerning quantitation technique associated with internal standards.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were quantitated against the 1,4-dichlorobenzene-d4 internal standard and were within the established laboratory control limits unless noted otherwise in verification/validation summary. Note: surrogate analyte responses (1,4-dioxane-D8) were also used as internal standards.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) were prepared and analyzed for the target analyte SVOCs. The LCS recoveries and LCS/LCSD RPD were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

NOTE: MS/MSD QC samples were not analyzed as part of this QC batch.

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs

There were no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs

Not required for this sampling event or laboratory submittal.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

3.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	*Reference Method*	*Matrix*	*Preservation & Storage*	*Holding Times*
Semi-volatile Organics by GCMS	OSW-8270D-SIM	Water	Refrigeration 0-6^{o}C	7days Extraction 40 days Analysis

3.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

4.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

5.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1
(Sample Analytical Summary – SAS table)

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories-Mansfield
Laboratory Submittal: L1626902

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS SVOC SIM	Comment
L1626902-01	RW-4A(62-72)-082516	8/25/2016		X	
L1626902-02	RW-13(71-91)-082516	8/25/2016		X	
L1626902-03	RW-12(130-140)-082516	8/25/2016		X	
L1626902-04	RW-8(204-214)-082516	8/25/2016		X	
L1626902-05	RW-8(163-173)-082516	8/25/2016		X	
L1626902-06	RW-13(100-120)-082516	8/25/2016		X	
L1626902-07	RW-13(150-170)-082616	8/26/2016		X	
L1626902-08	DUP-05-082616	8/26/2016		X	
L1626902-09	RW-10(185-195)-082616	8/26/2016		X	
L1626902-10	RW-10A(75-85)-082616	8/26/2016		X	

APPENDIX 2
(Laboratory Level 4 Data Package Table of Contents)

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APPENDIX 3
(Analytical Results Summary – ARS Table)

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626902

		Sample Name:	RW-4A(62-72)-082516				RW-13(71-91)-082516				RW-12(130-140)-082516				RW-8(204-214)-082516				RW-8(163-173)-082516			
		Lab Sample ID:	L1626902-01				L1626902-02				L1626902-03				L1626902-04				L1626902-05			
		Sample Date:	8/25/2016				8/25/2016				8/25/2016				8/25/2016				8/25/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC																						
OSW-8270C/D-SIM																						
1,4-DIOXANE	123-91-1		ND	156	ng/l	---	201	147	ng/l	---	ND	156	ng/l	---	121	167	ng/l	J	ND	156	ng/l	---

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1626902

		Sample Name:	RW-13(100-120)-082516				RW-13(150-170)-082616				DUP-05-082616				RW-10(185-195)-082616				RW-10A(75-85)-082616			
		Lab Sample ID:	L1626902-06				L1626902-07				L1626902-08				L1626902-09				L1626902-10			
		Sample Date:	8/25/2016				8/26/2016				8/26/2016				8/26/2016				8/26/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC																						
OSW-8270C/D-SIM																						
1,4-DIOXANE	123-91-1		97.2	174	ng/l	J	ND	153	ng/l	---	ND	163	ng/l	---	ND	160	ng/l	---	ND	150	ng/l	---

APPENDIX 4
(Qualified Analytical Summary table not required for this submittal)

APPENDIX 5

(NOTE: Initial LEVEL 2 Laboratory data package was not required or received for this submittal so Ford standard verification report is not available)

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193

Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 8/27/16

ALPHA Job #: L1696902

Client Information
Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 845 695 0200
Fax:
Email:

Project Information
Project Name: Fed - Ringwood
Project Location: Ringwood NJ
Project #: 140802-015
(Use Project name as Project #) ☐
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information
☐ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Please specify Metals or TAL.

ANALYSIS
A2 1,4 Dioxane SIM - PAS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2	Sample Specific Comments
26902-01	RW-4A(62-72)-082516	8/25/16	08:10	GW		✓	
-02	RW-13(71-91)-082516	8/25/16	09:45	GW		✓	
-03	RW-12(130-140)-082516	8/25/16	12:25	GW		✓	
-04	RW-8(204-214)-082516	8/25/16	13:45	GW		✓	
-05	RW-8(163-173)-082516	8/25/16	16:05	GW		✓	
-06	RW-13(100-120)-082616	8/26/16	07:45	GW		✓	
-07	RW-13(150-170)-082616	8/26/16	08:25	GW		✓	
-08	Dup-05-082616	8/26/16	12:00	GW		✓	
-09	RW-10(185-195)-082616	8/26/16	13:05	GW		✓	
-10	RW-10A(75-85)-082616	8/26/16	14:15	GW		✓	

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	8-26-16 14:45		8-26-16 14:45
	8-26-16 18:00		8-26-16 1800
	8-27-16 0200		8/27/16 0200

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	sub item	criteria reference	general observations	GCMS SVOC SIM
PROJECT SCOPE/LAB REQUIREMENTS				
SOW available?				**2009**
Scope validation criteria referenced				**CLP-2001 organics, CLP-1992 inorganics**
Lab certifications required				**New Jersey**
Lab single blind PE samples completed				**NOT AVAILABLE**
SAMPLING ISSUES				NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS				
holding times				**OK**
preservation				**OK**
temperature of cooler - degrees C				**2.0**
COC discrepancies				**OK**
sample integrity (containers, amounts)				**OK**
ANALYTICAL/PREP GENERAL				
prep batch		LAB		**WG926894**
prep date		LAB		**29-Aug**
analytical batch		LAB		**WG926975**
analytical date		LAB		**8/31/2016 9/1**
instrument ID		LAB		**BNA7**
Instrument Tune		METHOD	tune	**OK**
Instrument Performance Checks		METHOD	tailing, degradation	**NA**
ICAL (Initial Calibration Curve)	CURVE ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	**30-Aug**
ICAL (Initial Calibration Curve)	CURVE DATE	METHOD		**OK**
ICV (Initial Calibration Verification)		METHOD	max 30%	**OK**
CCV (Continuing Calibration Verification)		METHOD	max 20%/50%	**OK**
Target Compound Lists		SCOPE/COC		**1,4-dioxane**
Reporting Limits (RL/PQL/LOQ) compliant		SCOPE	100 ng/L	**150 ng/L**
Blanks- method/calibration	method blank	NFG		**OK**
LCS (Laboratory Control Spikes)		lab control limits	by method	**40-140%, 30%**
MS/MSD (Matrix Spikes)		lab control limits	by method	**NO MS IN BATCH**
Sample duplicates		lab control limits	NA	**NA**
Internal standard reponses/RRT		METHOD	50-200%	**OK**
Surrogate recoveries		lab control limits	SVOC BN surrogates	**OK**
Qualitative criteria met		METHOD		**OK**
TICS (Tentatively Identified Compounds)		METHOD		**NA**
TIC blanks		NFG		**NA**
Trip blanks		NFG		**NA**
Field blanks		NFG		**NA**
Field duplicates		SCOPE		**OK**
Post Digestion Spikes (PDS)		METHOD		**NA**
Serial Dilution (SD)		METHOD		**NA**
CRQL checks performed?		SCOPE		**NA**
E flagging required		LAB		**NA**
GENERAL QC TRACKING				
Control Limits		SCOPE	see above	**LABORATORY**
Certificates of Analysis for primary standards		VALIDATOR		**NOT PROVIDED**
Working/Intermediate standard prep calculations		VALIDATOR	prep log	**OK**
Prep technique		not specified	VARIES	**3510C**
Prep sample volumes/mass		not specified	VARIES	**500**
OVERALL				
Data Reportable?				**YES**

E-Mail Date: 2016-09-26
E-Mail To: tim.roeper@cornerstoneeg.com
cc:

U.S. Mail: Tim Roeper
Cornerstone Environmental Group
100 Crystal Run Road, Suite 101
Middletown, NY 10941

ANALYTICAL DATA VALIDATION REPORT
Ringwood Mines/Landfill
Ford Motor Company
CLIENT PROJECT NUMBER – 140802-015
CADENA PROJECT E203361
SAMPLES COLLECTED AUGUST 2016
SUBMITTAL #: L1627228

PREPARED BY:
CADENA, INC.
1099 Highland Drive
Ann Arbor, MI 48108
Telephone: 517-819-0356
Fax: 734-975-6709
Contact: Jim Tomalia (jtomalia@cadenaco.com)
Date: 2016-09-26
www.CADENACO.com

TABLE OF CONTENTS

LISTS OF APPNEDICES

(Following Text)

LIST OF ATTACHMENTS

1.0`INTRODUCTION

The following document details an assessment of the analytical data reported by ALPHA Analytical Laboratory Mansfield and Westborough MA the data in the submittals listed below which were collected from the Ringwood Mines/Landfill site as noted. The sampling and analysis summary listing sample ID's and testing as related to the laboratory submittal numbers is presented in Appendix 1. The summary of all of the field sample results and qualifiers associated with this submittal is presented in Appendix 3. Executive summary of qualified data only is reported in Appendix 4. Lab deliverables relevant to this submittal are included as attachments at the end of this report.

Table 1.1

Lab Sample ID	Sample ID	Collection Date	Collection Time	OSW-8270D
L1627228-01	FB-05-082916	8/29/2016	0720	X
L1627228-02	RW-14S (135-155) - 082916	8/29/2016	0845	X
L1627228-03	RW-14D (175-185) - 082916	8/29/2016	0940	X
L1627228-03	RW-14D (175-185) – 082916-MS	8/29/2016	0940	X
L1627228-03	RW-14D (175-185) – 082916-MSD	8/29/2016	0940	X
L1627228-04	RW-10A (51-61) - 082916	8/29/2016	1220	X
L1627228-05	RW-10S (120-130) - 082916	8/29/2016	1430	X
L1627228-06	RW-9A (85-95) - 083016	8/29/2016	0720	X
L1627228-07	RW-9 (206-216) - 083016	8/29/2016	0945	X

Table 1.2 below lists the project-specific analytes or analyte lists associated with the methods referenced in Table 1.1:

Table 1.2

Parameter	***Reference Method***	***AnalyteListing***
Semi-Volatile Organics	OSW-8270D/SIM - ISOTOPE DILUTION	1,4-Dioxane only

All "OSW" analytical methods were referenced from "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third editions final update IV or latest revision (with all subsequent revisions). The "SM" analytical method was referenced from the "Standard Methods for the Examination of Water and Waste water", latest promulgated revision. "EPA" methods were referenced from the revisions noted.

Laboratory Standard Operating Procedures (SOPs) associated with the methods utilized for this laboratory submittal were not available to CADENA for the purpose of validating this SDG.

Level IV data review provides a comprehensive or extensive review of the analytical data allowing for the complete reconstruction of the chemical analysis.

All of the data that was recalculated was consistent with the reported results to within at least 2 significant figures. Final results may not recalculate exactly beyond this level of precision, in some cases, due to differences in available significant figures between the hardcopy raw data provided and the data utilized for calculations by the laboratory that came directly from the instrument. A table of the laboratory documents reviewed in preparing this report is included in Appendix 2.

The data was reviewed in accordance with the analytical methods and the documents listed below: (NOTE: laboratory criteria – control limits – were utilized to evaluate the data where available. Comparison to NFG criteria are noted when lab criteria was not available or for informational purposes when lab data exceeds NFG criteria).

i.) "Standard Operating Procedure HW-6 Rev12 March 2001: CLP Organics Data Review and Preliminary Review" USEPA Region 2 as identified in project QAPP.

ii.) "Standard Operating Procedure HW-2, Rev11, Jan 1992: Evaluation of Metals Data for the CLP Program" as identified in the project QAPP.

The Level VI review findings are summarized in the Executive Summary section below.

Process controls for the validation review of the level 4 laboratory data package are referenced in the tables by method/analytical group within the body of this report.

Definitions for data qualifiers that may have been incorporated into the data tables for this report are noted below:

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
NJ	Tentatively identified compound with approximated concentration.

R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

1.1 VALIDATION QUALIFIER EXECUTIVE SUMMARY

VALIDATION SUMMARY

GCMS SVOC/SIM

No additional qualifications were made based on the level 4 data package validation review.

The following observations **DID NOT** result in qualification but were noted during the validation review:

GCMS SVOC-SIM

CLARIFICATION - Issues arose finding the calibration curve identification, located possibly only in the Table of Contents and the analytical batch identification was derived from reviewing the sequence table. Although the data package was well organized and title pages were helpful, the raw data Quant reports were not intuitive for recognizing method blank, LCS and other QC analyses.

SEQUENCE TABLE SAMPLE ID's – The method blank, LCS and LCD names were designated on the Work Group Report and sample quants as WG928084-1, -2, and -3, but were listed on the Analytical Log File as WG928082-1, -2, and -3.

MANUAL INTEGRATION – No "before" manual integration chromatograms were available for the 1,4-dioxane peaks that were flagged as being manually integrated, only the post integration chromatograms.

GENERAL METHODOLOGY – Laboratory used GCMS SVOC method 8270D-SIM with method 3510C prep. The 1,4-dioxane analyte concentration was quantitated against the 1,4- dioxane-D8 surrogate which was also used as the internal standard. Method is considered to be isotope dilution however the "surrogate as internal standard" technique has not been observed to be the industry standard quantitation approach. This would be considered to be a "results corrected for percent recovery" quantification technique so data generated using these calculations would not be comparable to field sample results generated by industry standard internal standard quantification

techniques (high bias would be expectation for this quantification approach).

Analysis did not follow the referenced SW-846 8270D Method and merits a statement of modification. Introducing the internal standard, 1,4-dioxane-d8 prior to sample extraction prevents using the 50% to 200% IS recovery rule for that internal standard. The rule is therefore applied only to the surrogates associated with samples that had internal standards injected at analysis, and this data is provided in the Level 4, Form 8 Internal Standard and RT summary table. The status of lab specific State of New Jersey or associated accreditation body approval associated with this quantitation approach for 1,4-dioxane should be confirmed.

VERIFICATION SUMMARY

No level 2 data package was available for review prior to receipt and processing of the level 4 data package.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

2.0 SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) – METHOD SW846 8270D -SIM analysis with ISOTOPE DILUTION– GENERAL QC REQUIREMENTS

See Attachments for submittal-specific review summary of QC requirements noted below
The target analyte list was defined by the client-project as 1,4-dioxane.

2.1.1 TUNING AND MASS CALIBRATION – GC/MS SVOCs

Tuning compounds were analyzed at the required frequency and met the tuning criteria specified in the method without exception.

2.1.2 INITIAL CALIBRATION – GC/MS SVOCs

Initial calibration data for SVOCs met the method criteria for instrument sensitivity, retention time drift and linearity of response unless noted otherwise in verification/validation summary.

2.1.3 INITIAL CALIBRATION VERIFICATION – GC/MS SVOCs

Initial calibration verification (ICV) standards for SVOC analyses were reviewed and met criteria specified by the laboratory with no exceptions.

2.2 CONTINUING CALIBRATION – GC/MS SVOCs

Continuing calibration standards were analyzed at the required frequency and the results met the criteria for instrument sensitivity and linearity of response unless noted otherwise in verification/validation summary

2.3 INTERNAL STANDARDS – GC/MS SVOCs

Internal standard (IS) data were reviewed and met criteria for retention time and response. See executive summary for information concerning quantitation technique associated with internal standards.

2.4 SURROGATE SPIKE RECOVERIES – GC/MS SVOCs

If surrogate recoveries are outside of established control limits, presumably due to matrix effects, these interferences must be confirmed by sample re-analysis or other acceptable standard techniques.

If in order to overcome sample matrix interferences or to quantitate elevated target compound levels for an investigative sample, the surrogate results are diluted to below the laboratories limits of quantitation, these surrogate results will not be utilized to qualify data.

All surrogate recoveries were quantitated against the 1,4-dichlorobenzene-d4 internal standard and were within the established laboratory control limits unless noted otherwise in verification/validation summary. Note: surrogate analyte responses (1,4-dioxane-D8) were also used as internal standards.

2.5 LABORATORY CONTROL SAMPLE ANALYSES - GC/MS SVOCs

A laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) were prepared and analyzed for the target analyte SVOCs. The LCS recoveries and LCS/LCSD RPD were within the laboratory control limits for all compounds of interest unless noted otherwise in verification/validation summary.

2.6 MATRIX SPIKE/MATRIX-SPIKE-DUPLICATE ANALYSES - GC/MS SVOCs

Validator does not have enough information regarding the nature and consistency of the investigative field samples to apply the valid qualifiers to additional samples beyond the parent sample for the MS/MSD outlier. The end data user must determine whether or not to extend qualification based on knowledge of the investigative field samples and project requirements.

2.7 FIELD QA/QC – FIELD DUPLICATE ANALYSES - GC/MS SVOCs There were

no field duplicate comparisons performed as part of this validation request.

2.8 TARGET COMPOUNDS AND REQUIRED LIMITS OF DETECTION - GC/MS SVOCs

All target analytes were reported based on comparison to project-specific target analyte requirments.

2.9 COMPOUND IDENTIFICATION AND QUANTITATION - GC/MS SVOCs

All laboratory target compound identifications and quantitation for the client samples reviewed were acceptable without exception.

2.10 TENTATIVELY IDENTIFIED COMPOUNDS - GC/MS SVOCs Not required for this sampling event or laboratory submittal.

2.11 BLANKS – METHOD/FIELD/CALIBRATION - GC/MS SVOCs

Method blanks are evaluated if detected above the MDL. Client sample results that are less than 5 times the amount found in the blank for organic analytes (10X if analyte is considered to be a common lab contaminant) or less than 10 times the amount found in the blank for inorganic/metals analysis are flagged as non-detect at the RL with a UB flag if sample result is less than RL or non-detect at the concentration reported with a B flag if sample result is above the RL. See verification/validation summary for findings specific to this submittal.

3.0 REPRESENTATIVENESS EVALUATION

Representativeness is a qualitative evaluation of whether the data represents actual environmental conditions. Representativeness was evaluated using the criteria noted in the following sections.

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

3.1 SAMPLE PRESERVATION AND HOLDING TIMES

Holding time criteria, which reflect the length of time after sample collection that a sample or extract remains representative of environmental conditions. Depending on the analysis, either one or two holding times were evaluated.

i.) For those analyses that do not include a sample extraction, only one holding time was evaluated: the length of time between sample collection and analysis.

ii.) For analyses that require sample extraction prior to analysis, two holding times were evaluated: the length of time from sampling until extraction and the length of time from extraction to analysis.

Holding times are compared to standard method specific holding times accepted or recommended by the United States Environmental Protection Agency (USEPA). Those holding times outside of USEPA acceptance criteria are qualitatively evaluated to determine their effect on sample representativeness.

All sample extractions and/or analyses were performed within the specified holding times unless noted otherwise in verification/validation summary.

EPA Sample Holding Time and Preservation Requirements

Parameter	***Reference Method***	***Matrix***	***Preservation & Storage***	***Holding Times***
Semi-volatile Organics by GCMS	OSW-8270D-SIM	Water	Refrigeration 0-6^{o}C	7days Extraction 40 days Analysis

3.2 METHOD BLANK SUMMARY

Representativeness was also evaluated by analysis of laboratory method blanks and field equipment blanks. Laboratory method blanks and field equipment blanks are used to identify sources of contamination not associated with environmental conditions.

4.0 USABILITY AND COMPARABIILTY

Usability of data was evaluated by assuring that all the analytical requests were met, samples were received in the proper condition, and all analyses were performed within the appropriate holding times unless noted otherwise in verification/validation summary

No data evaluated within this delivery group was considered unusable (qualified with an R flag) due to sample integrity, sample matrix interference or batch quality control issues unless noted otherwise in verification/validation summary.

5.0 QC SUMMARY

All sample results were compliant with the project specific QAPP standard (if available) for usability with exceptions defined by validation and verification qualifiers as applied. Please reference the following tables for a summary of the investigative field sample data and their valid qualifiers based on Level 4 technical review of the analytical data.

APPENDIX 1

SAMPLING AND ANALYSIS SUMMARY

CADENA Project ID:
Laboratory: ALPHA Laboratories-Mansfield
Laboratory Submittal: L1627228

Lab Sample ID	Sample ID	Collection Date (mm/yy/dd)	Collection Time (hh:mm:ss)	GCMS SVOC SIM	Comment
L1627228-01	FB-05-082916	8/29/2016		X	
L1627228-02	RW-14S (135-155) -082916	8/29/2016		X	
L1627228-03	RW-14D (175-185) -082916	8/29/2016		X	
L1627228-04	RW-10A (51-61) -082916	8/29/2016		X	
L1627228-05	RW-10S (120-130) -082916	8/29/2016		X	
L1627228-06	RW-9A (85-95) -083016	8/30/2016		X	
L1627228-07	RW-9 (206-216) -083016	8/30/2016		X	

APPENDIX 2

(Lab submittal table of contents)

Table of Contents

Table of Contents

APPENDIX 3

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1627228

		Sample Name:	FB-05-082916				RW-14S (135-155) -082916				RW-14D (175-185) -082916				RW-10A (51-61) -082916			
		Lab Sample ID:	L1627228-01				L1627228-02				L1627228-03				L1627228-04			
		Sample Date:	8/29/2016				8/29/2016				8/29/2016				8/29/2016			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS SVOC																		
OSW-8270C/D-SIM																		
1,4-DIOXANE	123-91-1		ND	0.144	ug/l	---	0.251	0.147	ug/l	---	0.973	0.147	ug/l	---	ND	0.16	ug/l	---

Analytical Results Summary

Reportable Results Only

CADENA Project ID: E203361
Laboratory: ALPHA Laboratories - Mansfield
Laboratory Submittal: L1627228

Sample Name:		RW-10S (120-130) -082916				RW-9A (85-95) -083016				RW-9 (206-216) -083016			
Lab Sample ID:		L1627228-05				L1627228-06				L1627228-07			
Sample Date:		8/29/2016				8/30/2016				8/30/2016			
Analyte	**Cas No.**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**	**Result**	**Report Limit**	**Units**	**Valid Qualifier**
GC/MS SVOC													
OSW-8270C/D-SIM													
1,4-DIOXANE	123-91-1	0.0883	0.16	ug/l	J	ND	0.163	ug/l	---	ND	0.183	ug/l	---

APPENDIX 4

(QAR TABLE not required for this submittal)

APPENDIX 5

(NOTE: Initial LEVEL 2 Laboratory data package was not required or received for this submittal, so Ford verification report is not available)

ATTACHMENT A

CHAIN OF CUSTODY DOCUMENT(S)

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193
Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page of

Date Rec'd in Lab: 8/31/16

ALPHA Job #: L1627228 ~~L1627238~~

Project Information

Project Name: FORD - Ringwood
Project Location: RINGWOOD NJ
Project #: 140802-015
(Use Project name as Project #) ☐ 140802-015
Project Manager: Tim Roeper
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Client Information

Client: Cornerstone Env. Group
Address: 100 Crystal Run Rd
Middletown NY 10941
Phone: 845-695-0200
Fax:
Email:

These samples have been previously analyzed by Alpha ☐

Deliverables

☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

Billing Information

☐ Same as Client Info
PO #

Site Information

Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

A2 1,4 DIOXANE SIM PPB

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	A2 1,4 DIOXANE SIM PPB
27238.01	FB-05-082916	8/29/16	0720	BW	JK	X
27228.02	RW-14S (135-155)-082916	8/29/16	0845	GW	JK	X
.03	RW-14D (175-185)-082916	8/29/16	0940	GW	JK	X
.03	RW-14D (175-185)-082916-MS	8/29/16	0940	GW	JK	X
.03	RW-14D (175-185)-082916-MSD	8/29/16	0940	GW	JK	X
.04	RW-10A (51-61)-082916	8/29/16	1220	GW	JK	X
.05	RW-10S (120-130)-082916	8/29/16	1430	GW	JK	X
.06	RW-9A (85-95)-083016	8/30/16	0720	GW	JK	X
.07	RW-9 (206-216)-083016	8/30/16	0945	GW	JK	X

Container Type: A
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Daniel Colbert	8/30/16 1530	BB Baker/ALPHA	8-30-16 1530
BB Baker	8-30-16 1800	Tom Tobin	8-30-16 1800
Tom Tobin	8-30-16 2330	Mike Ruffo	8/31/16 0230
Mike Ruffo	8/31/16 0230	Al Williams	8-31-16 0230
Al Williams	8-31-16 0315	Tom Tobin	8/31/16 0315

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

ATTACHMENT B

VALIDATION CHECKLIST SUMMARY

VALIDATED DATA	sub item	criteria reference	general observations	GCMS SVOC SIM
PROJECT SCOPE/LAB REQUIREMENTS				
SOW available?				**2009**
Scope validation criteria referenced				**CLP-2001 organics, CLP-1992 inorganics**
Lab certifications required				**New Jersey**
Lab single blind PE samples completed				**NOT AVAILABLE**
SAMPLING ISSUES				NOT EVALUATED
SAMPLE RECEIPT OBSERVATIONS				
holding times				**OK**
preservation				**OK**
temperature of cooler - degrees C				**2.9**
COC discrepancies				**OK**
sample integrity (containers, amounts)				**OK**
ANALYTICAL/PREP GENERAL				
prep batch		LAB		**WG928084**
prep date		LAB		**1-Sep**
analytical batch		LAB		**WG928229**
analytical date		LAB		**9/1/2016 9/2**
instrument ID		LAB		**BNA6**
Instrument Tune		METHOD	tune	**OK**
Instrument Performance Checks		METHOD	tailing, degradation	**NA**
ICAL (Initial Calibration Curve)	CURVE ID	METHOD	RRT, SPCC, CCC, CURVE FITS,	**10-Aug**
ICAL (Initial Calibration Curve)	CURVE DATE	METHOD		**OK**
ICV (Initial Calibration Verification)		METHOD	max 30%	**OK**
CCV (Continuing Calibration Verification)		METHOD	max 20%/50%	**OK**
Target Compound Lists		SCOPE/COC		**1,4-dioxane**
Reporting Limits (RL/PQL/LOQ) compliant		SCOPE	1.0 ug/l	**0.15 ug/l to 0.183 ug/l**
Blanks- method/calibration	method blank	NFG		**OK**
LCS (Laboratory Control Spike) and LCS/LCS RPD		lab control limits	test specific	**40-140%, 30%**
MS/MSD (Matrix Spikes) and MS/MSD RPD		lab control limits	test specific	**40-140%, 30%**
Sample duplicates		lab control limits	NA	**NA**
Internal standard reponses/RRT		METHOD	50-200%	**see execuive summary**
Surrogate recoveries		lab control limits	SVOC BN surrogates	**OK**
Qualitative criteria met		METHOD		**OK**
TICS (Tentatively Identified Compounds)		METHOD		**NA**
TIC blanks		NFG		**NA**
Trip blanks		NFG		**NA**
Field blanks		NFG		**OK**
Field duplicates		SCOPE		**NA**
Post Digestion Spikes (PDS)		METHOD		**NA**
Serial Dilution (SD)		METHOD		**NA**
CRQL checks performed?		SCOPE		**NA**
E flagging required		LAB		**NA**
GENERAL QC TRACKING				
Control Limits		SCOPE	see above	**LABORATORY**
Certificates of Analysis for primary standards		VALIDATOR		**NOT PROVIDED**
Working/Intermediate standard prep calculations		VALIDATOR	prep log	**NOT AVAILABLE**
Prep technique		not specified	VARIES	**3510C**
Prep sample volumes/mass		not specified	VARIES	**500**
OVERALL				
Data Reportable?				**YES**