Radiological Health, Safety and Environmental Services
A USA Environment, L.P. Company

WEST LAKE LANDFILL

PERIMETER AIR MONITORING

QUARTER REPORT

NOVEMBER AND DECEMBER, 2015, AND JANUARY, 2016

June 2016

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1. INTRODUCTION

This West Lake Landfill Perimeter Air Monitoring Quarterly Report (Report) summarizes the results of the second three months (November and December, 2015, and January, 2016) of perimeter air monitoring under this program. The purpose of the monitoring is to obtain baseline air monitoring data prior to implementation of future remedial actions at Operable Unit-1 (OU-1) of the West Lake Landfill Superfund Site (the site).

The air monitoring activities include sampling for airborne radioactive particulates, radon gas, volatile organic compounds (VOCs), and measurements of gamma radiation. Sampling is performed continuously at the perimeters of OU-1 Areas 1 and 2. Data collected from the monitoring activities are used to assess and document the air quality along the boundaries of OU-1. The monitoring was performed according to the requirements described in the Air Monitoring, Sampling, and Quality Assurance/Quality Control (QA/QC) Plan (Plan) (Auxier and Associates (A&A) 2014), which describes the environmental air sampling and monitoring activities performed at the West Lake Landfill Superfund Site in Bridgeton, Missouri, as required by Paragraph 30d of the April 14, 2014 Administrative Settlement Agreement and Order on Consent for Removal Action – Preconstruction Work (Preconstruction ASAOC) entered into between the U.S. Environmental Protection Agency (EPA) and Respondents Bridgeton Landfill, LLC and Rock Road Industries, Inc. EPA approval of the Plan was received on December 8, 2014.

1.1 SITE DESCRIPTION

The West Lake Landfill Superfund Site is located at 13570 St. Charles Rock Road in Bridgeton, St. Louis County, Missouri, approximately one mile north of the intersection of Interstate 70 and Interstate 270. The site is divided into two Operable Units. Operable Unit-1 (OU-1) is composed of the two disposal areas (Area 1 and Area 2) where waste materials containing radionuclides have been identified. Municipal solid waste (MSW) and industrial wastes were disposed of in OU-1 from approximately early 1950s or late 1940s until 1974. Operable Unit-2 (OU-2) consists of the remainder of the site and includes several inactive landfilled areas containing sanitary waste or demolition debris, and a permitted sanitary landfill (the Bridgeton Sanitary Landfill), which stopped receiving waste on Dec. 31, 2004. The Bridgeton Sanitary Landfill is a quarry-fill landfill containing municipal waste, and consists of the North Quarry and South Quarry landfill units. Since late 2010, the Bridgeton Sanitary Landfill South Quarry unit has experienced a subsurface reaction (SSR). The southern border of OU-1 Area 1 is contiguous with the North Quarry cell of the Bridgeton Sanitary Landfill. OU-1 Area 2 is located along the northern portion of the overall site, approximately 1,000 feet (at the closest) from the outer boundary of the North Quarry landfill unit, and is separated from it by a road and by the closed demolition landfill (Figure 1).

Land use surrounding the site is primarily commercial and industrial, with residential uses located approximately ½ mile to the south of the site (the Spanish Village subdivision) and approximately ½ mile to the south east (the Terrisan Reste mobile home park).

1.2 BACKGROUND

According to the Nuclear Regulatory Commission (NRC), in 1973, approximately 8,700 tons of leached barium sulfate residue (a remnant from Manhattan Engineer District/Atomic Energy Commission projects) were reportedly mixed with approximately 39,000 tons of soil from the 9200

Latty Avenue Superfund site in Hazelwood, Missouri, transported to the West Lake Landfill, and used as daily or intermediate cover material (NRC 1988, RMC 1982 and 1981).

EPA added the West Lake Landfill Superfund Site to its National Priorities List in 1990. In May 2008, EPA signed a Record of Decision (ROD) for OU-1, which selected a remedial action for the radiologically contaminated landfill areas and the area formerly described as the Ford Property, now called the Buffer Zone/Crossroads property. The 2008 ROD requires installation of a modified solid waste landfill cover over OU-1 Areas 1 and 2.

1.3 CONSTITUENTS OF CONCERN

West Lake Landfill contains both municipal solid waste and construction and demolition wastes. In a March 7, 2014 meeting, representatives from the EPA met with representatives from Engineering Management Support, Inc. (EMSI) and requested that air monitoring be performed for airborne radiological contaminants and volatile organic compounds (VOCs). A Baseline Risk Assessment (BRA) was published in 2000 and identified the radionuclides of concern at the West Lake Landfill. These compounds, plus EPA's requested VOC sampling, are the constituents of concern (COCs).

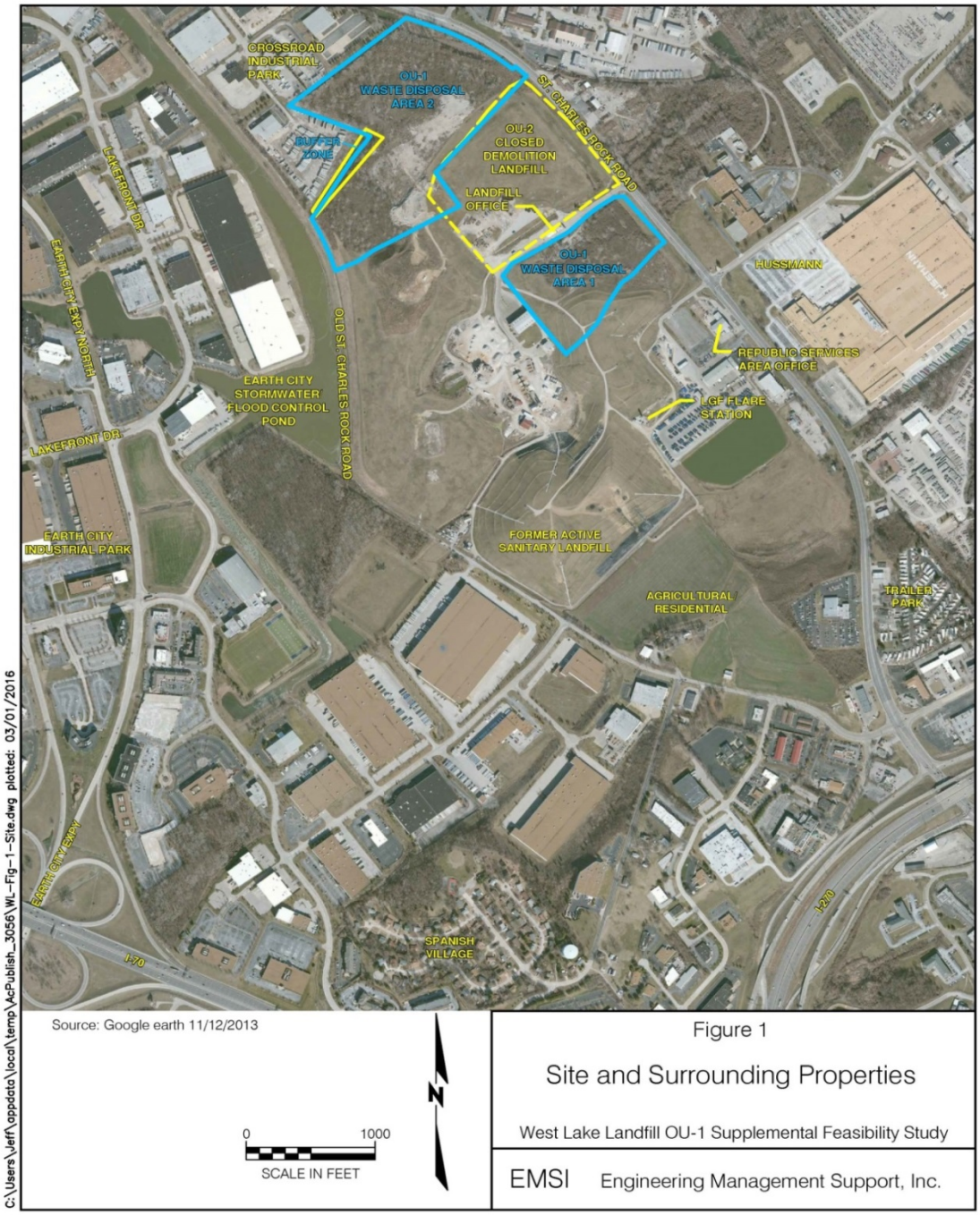

Figure 1 Site Location

2. AIR MONITORING APPROACH AND SAMPLING METHODS

An integrated system of 13 environmental monitoring stations has been installed at the site. Twelve of these stations are located around the perimeters of OU-1 Areas 1 and 2, with two located close to the nearest on-site buildings (the landfill office and the transfer station building). The thirteenth station is located in the southwest corner of the site, the farthest distance on-site from Areas 1 and 2. These 13 locations were selected to ensure that the monitoring network encompassed Areas 1 and 2, including the landfill entry road and the road through the center of the site (see Figure 2).

An on-site meteorological station (the "met station") measures and logs temperature, barometric pressure, relative humidity, wind speed and direction. The station is located adjacent to the landfill office building (13570 St. Charles Rock Road).

The monitoring network shown in Figure 2 provides coverage around Areas 1 and 2 under all wind direction conditions. The air monitoring and sampling locations near the center of the site are arranged in a broad line oriented approximately southeast to northwest and parallel to the predominant wind directions. Additional stations are located transverse to this orientation, parallel to the less dominant southwest and northeast wind directions. Stations A1-A6 and A9 bound the perimeter of Area 2. Stations A5, A7, A8, A10 and 11 bound Area 1. Station A13 is at the southern boundary of the South Quarry pit area, and is located upwind of Areas 1 and 2 based on the predominant southerly wind direction as shown in Figure 3 and Figure 4.

Table 1 lists the types and quantities of environmental monitoring equipment for the different monitoring stations depicted in Figure 2. The table also lists the COCs measured by the equipment housed at each station.

Table 1 List of Samplers for Perimeter Monitoring

Perimeter Monitor Inventory per Location	Sampling Mode and Collection Frequency	Contaminants Measured
Proposed list of samplers at A01, A05, A07, A08, A11		
Metered air pump with dual chamber sampler for particulate fiber filter	Continuous / Every 28 days	Total alpha and beta activity
Alpha Track Etch Detector for radon gas	Continuous / Quarterly	Radon-222 and radon daughters
Radiello RAD130 Canister	Continuous / Every 14 days	Volatile Organic Compounds[1]
Radiation dosimeter (TLD)	Continuous / Quarterly	Gamma radiation levels
Proposed list of samplers at remaining on-site and perimeter locations (x8)		
Metered air pump with filter to collect particulates	Continuous / Monthly	Total alpha and beta activity
Alpha Track Etch Detector for radon gas	Continuous / Quarterly	Radon-222 and radon daughters
Radiation dosimeter (TLD)	Continuous / Quarterly	Gamma radiation levels
Meteorological monitoring station		
High resolution wind sensor	Continuous	Wind speed and direction

[1] The Radiello 130 media are analyzed for the list of analytes included in Appendix F of the Plan. This list was provided by the laboratory and reflects common analytes for which sampling rates have been calculated for the Radiello 130 media.

The sampling and sensor equipment in each monitoring station enclosure operate continuously. The equipment in these stations consists of a high volume air sampler for airborne particulates, a continuous

radon monitor (alpha track etch), and an environmental radiation detector called a thermoluminescent dosimeter (TLD). Alpha track etch monitors provide a cumulative measure of radon gas present and allow determination of average radon levels for the sampling period. TLDs measure ambient gamma radiation levels.

Particulates gathered on air sample filters are collected every four weeks (28 days) and analyzed for alpha and beta emitters. Radiation dosimeters and alpha track etch detectors are exchanged and sent for analysis every calendar quarter.

Five of the monitoring stations house continuous passive samplers to monitor for VOCs. Monitoring of VOCs is performed using the Radiello RAD130 chemical adsorbing cartridge diffusion samplers that are left in place for periods of 14 days. The Radiello RAD130 cartridges consist of a stainless steel net cylinder with 100 mesh grid openings and a 5.8 mm diameter, packed with approximately 530 milligrams of activated charcoal. VOCs are trapped by adsorption and recovered by carbon disulfide displacement.

Table 2 provides a summary of the types of measurements, sampling numbers and frequency as listed in the Plan.

Table 2 Field Sampling Summary

Analytical Parameter	Level of Sensitivity	Matrix	Sample Frequency	Container Type	Annual Subtotal Target Field Samples	Field QC Extras			Total Annual Field Samples
						Trip Blank	Filter Blanks	Field Duplicates	
Gross Alpha/Beta	1 dpm/ sample	Air Filter	13 x Continuous Air Samplers /Monthly	Glassine Envelope	156	NA	12	12	180
Radon	0.5 pCi/l	Track Etch Detector	13 x Continuous Samplers /Quarter	Track Etch Detector	56	NA	NA	NA	56
Gamma Dose	1 mrem	TLD	13 x Stations/ Quarter	TLD	56	1 (Jan 2016)	NA	NA	56
VOC	See Plan Appendix B for MDL and RL	Radiello Canister	5 Continuous Every 14 Days	Radiello Canister	130	1 (8/15/15)	NA	1 Every 14 Days	156

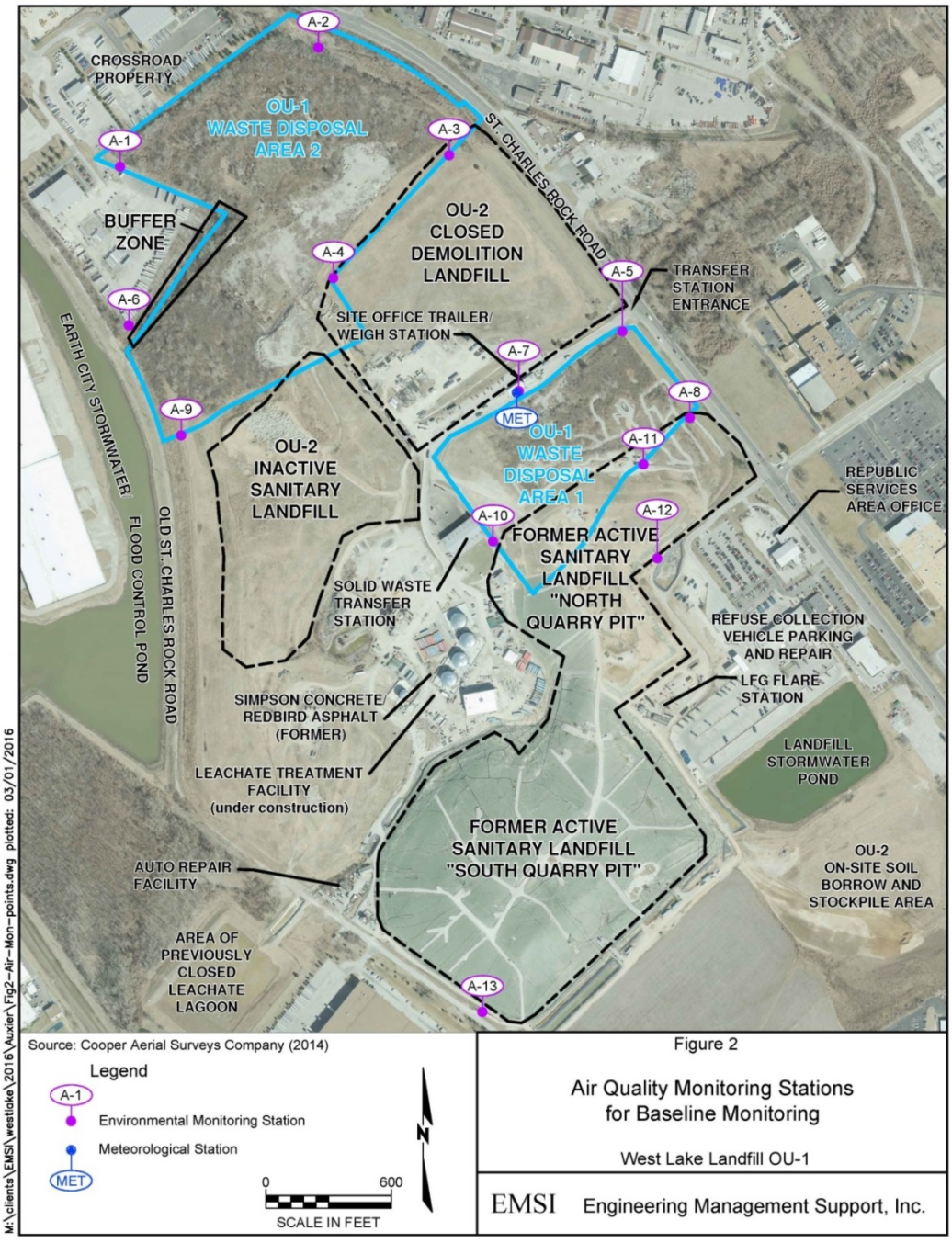

Figure 2 Air Monitoring Locations

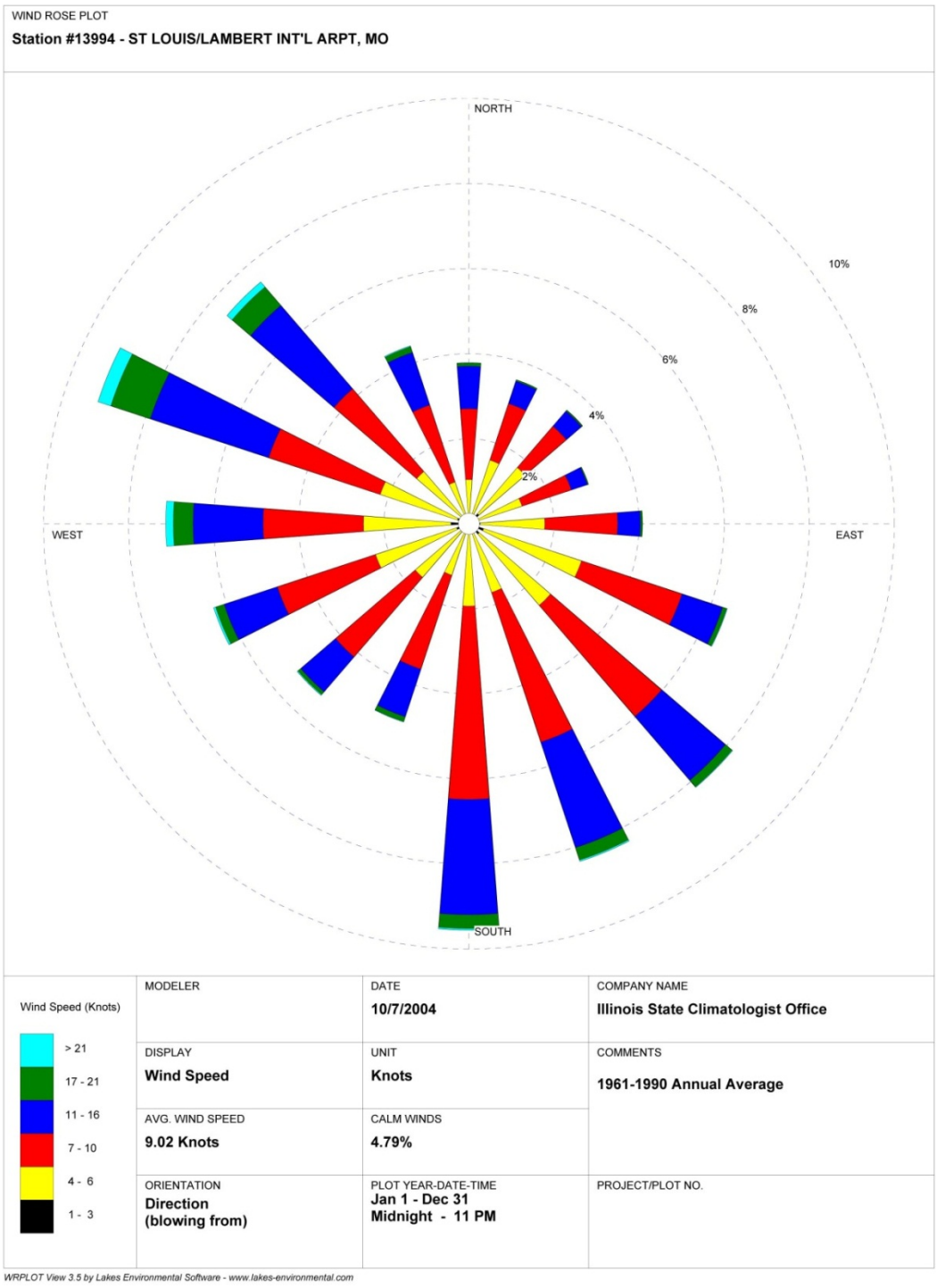

Figure 3 Predominant Wind Directions

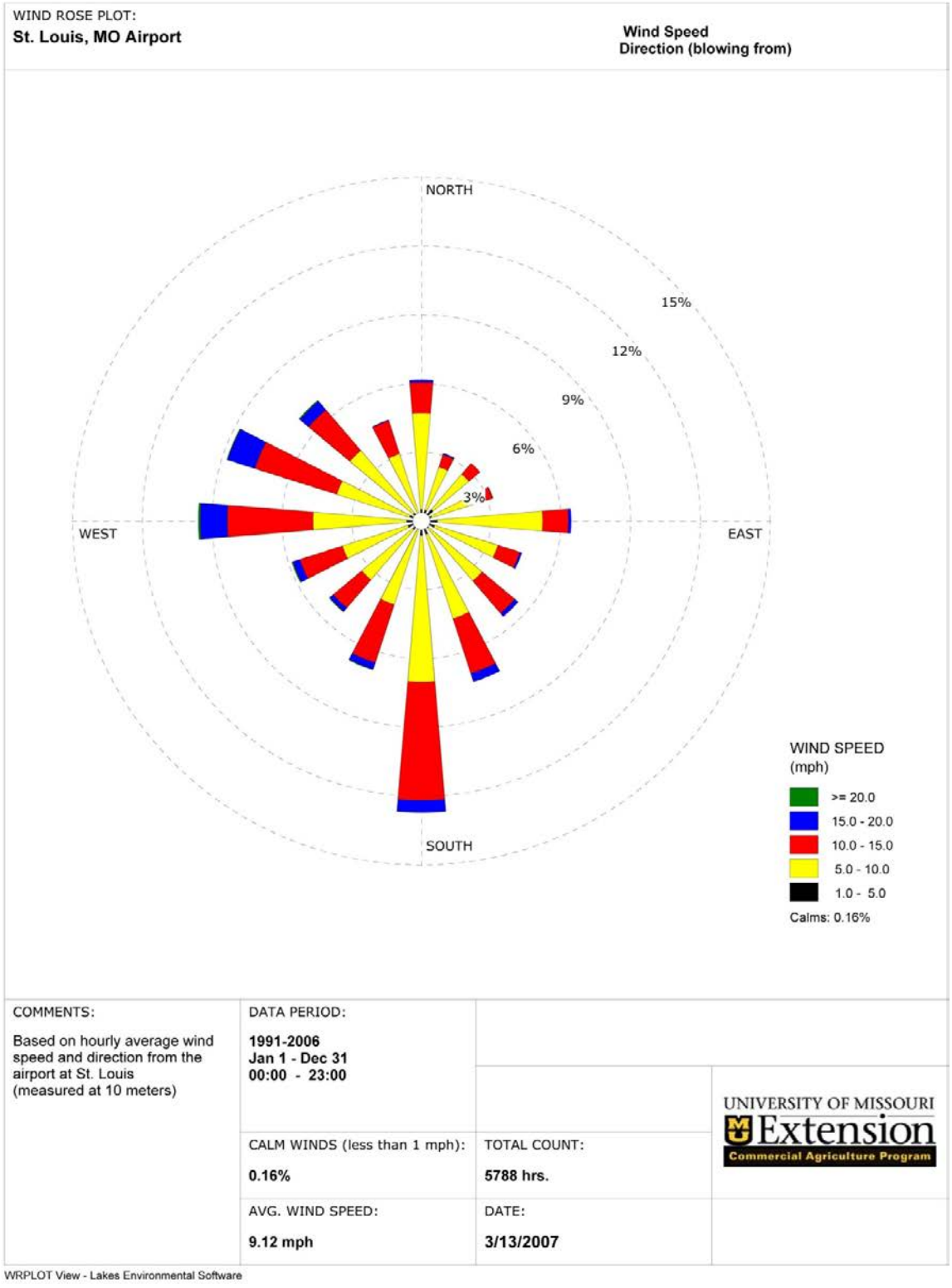

Figure 4 Predominant Wind Directions

2.1 DATA EVALUATION

The purpose of the air monitoring program is to provide baseline data regarding air quality prior to implementation of remedial actions. Ultimately, baseline data will be compared to future data obtained during implementation of remedial actions to assess whether such actions contribute to any release of radionuclides or VOCs.

2.2 SAMPLE COLLECTION AND ANALYSES

2.2.1 Air Particulates

Air sampling equipment is calibrated, and the functionality of the equipment is checked according to manufacturer specifications and A&A procedures 5.1 and 5.2, "Calibration Procedure for PM2.5 Air Monitoring" and "One Point Flow Audit for PM2.5 Air Monitoring." Samples are collected according to the instructions contained in A&A procedure 5.3 "Sampling Procedure for PM2.5 Monitoring" (Appendix H).

Air particulate samples are collected every 28 days and submitted for analysis. The operability of air sampling equipment is verified at the time of sample collection according to the One Point Flow Audit portion of Procedure 5.1 (Appendix H). Air flow meters, differential pressure indicators, and other devices used to determine volumetric flow rates of air particulate samplers are calibrated annually. Copies of the calibration records are maintained on-site as well as in A&A's corporate offices.

The air particulate samples are collected on 8-inch by 10-inch quartz filters. The laboratory removes five independent 47 millimeter (mm) pieces for the aliquot. Each 47 mm piece is adhered to a planchet. Each planchet is counted, and the counts summed. For the field duplicate, five pieces are removed for the sample, and five pieces are removed for the field duplicate, and each set of five pieces are counted and summed separately. The field duplicate is collected from a different sample each month. A blank filter is submitted and analyzed with each batch of samples submitted to the laboratory.

May, June, September and December particulate filters were submitted for isotopic analysis. At least one set of samples for each three-month sampling event will be submitted for isotopic analysis and gamma spectroscopy in addition to the gross alpha and gross beta analysis.

2.2.2 VOCs

Passive Radiello samplers for VOCs are deployed on Stations A01, A05, A07, A08 and A011. Samples are collected every 14 days and submitted for analysis. On a rotating basis, a field duplicate is placed in one of the stations during each 14-day sampling cycle. The Radiello passive/diffusive samples are analyzed by Gas Chromatography Mass Spectrometry (GCMS) using EPA method TO-15.

2.2.3 Gamma

Gamma radiation is measured by installing Thermoluminescent detectors (TLDs) at each of the 13 air monitoring stations. The TLDs are installed approximately three feet above the ground surface inside a housing shelter. A duplicate TLD is installed at one of the stations.

Mirion Technologies forwards 14 new TLDs to the site approximately 5-7 days prior to the quarterly change-out event. Upon arrival, the packages are examined to verify the number and designations of the new TLDs.

TLD change-outs consist of unclipping the exposed TLD at each station and attaching its replacement to the metal bracket. A duplicate TLD is placed at one of the stations.

The TLDs are placed in the shipping envelope provided by Mirion. The envelope is sealed and placed into a FedEx envelope that is labeled with the following statement cautioning against X-raying the package.

CAUTION: DOSIMETERS

DO NOT SANITIZE, X-RAY, IRRADIATE, OR NEUTRALIZE PACKAGE AS PRODUCT WILL BE DAMAGED. KEEP AWAY FROM RADIOACTIVITY, EXCESSIVE HEAT, AND MOISTURE.

2.2.4 Radon

Radon alpha track detectors are used at the monitoring stations to measure alpha particles emitted from radon and its associated decay products. Radon detectors are co-located with TLDs approximately three feet above the ground surface in housing shelters at the monitoring stations. The radon detectors are collected every three months and sent to an off-site laboratory for analysis. Recorded radon concentrations are listed in picocuries per liter (pCi/l). A duplicate detector is included at one of the stations.

Table 3 details the analytical methods required for each contaminant of concern.

Table 3 Sample Analyses and Methods

Analyte (COC)	Collection Method	Test	Sensitivity Level	Test Facility	Facility Location
Thorium Uranium Radium-226	Particulate Air Sample (4 in)	EPA Method 900.0 Gross Alpha/ Beta (GAGB)	1 dpm/sample	Eberline Analytical	Oak Ridge, TN
Rn-222	Track Etch	Alpha Track Etch	0.5 pCi/L	Inspect USA	Marshall, NC
Radiation Dose	TLD	TLD	<1 mRem	Mirion Tech	Irvine, CA
VOC	Radiello RAD130 Passive sorbent diffusion sampler	carbon disulfide desorption followed GC/MS analysis by EPA Method TO-15	See Plan Appendix E	Eurofins Air Toxics	Folsom, CA

2.2.5 Accredited Laboratories and Contacts

Eberline Analytical
Mike McDougall
601 Scarboro Road
Oak Ridge, TN 37830
Tel 865-481-0683

Eurofins Air Toxics
Kelly Buettner
180 Blue Ravine Road, Suite B
Folsom, CA 95630
Tel 800-985-5955

Inspect USA
100 S Main Street, Ste 609
Marshall, NC 28753
Tel 888-480-8812

Mirion Technologies, Inc.
17192 Murphy Avenue
Irvine, CA 92614
800-251-3331

2.2.6 Data Management

The laboratories performing radioanalytical and VOC analyses supply Level IV CLP-like data reports with all analytical results to Auxier & Associates, Inc. (A&A) and Engineering Management Support, Inc. (EMSI). These laboratories also supply analytical results in electronic spreadsheet format to the A&A Project Manager and EMSI.

2.2.7 Data Verification, Validation, Quality Assessment, and Delivery

The primary goal of data verification and validation (V&V) is to ensure that decisions are supported by data of the type and quality needed and expected for the intended use. Data verification is the process of evaluating the completeness, correctness, and consistency of a laboratory package or final data to assure that laboratory conditions and operations are compliant with project plan documents. Data validation addresses the reliability of the data. Results are evaluated to determine the presence or absence of an analyte and the uncertainty of the measurement process for contaminants of concern. Finally, scientific and statistical evaluation of the data may be required to determine if the quality of the data can support its intended use (MARLAP 2004). V&V and summary reports are generated and submitted to project management.

3. RESULTS SUMMARIES

The third quarter of sampling commenced October 14th and 15th, 2015 and concluded January 7th and 8th, 2016. The wind roses for November, December and January are shown in Figure 5**,** Figure 6, and Figure 7**.** On January 1, 2016, meteorological data collection frequency was changed from hourly to every 15 minutes.

3.1 OFF NORMAL EVENTS

There were no off normal events in the 3rd quarter sampling period.

3.2 AIR PARTICULATE RESULTS

The particulate air sampling duration is approximately 28 days, after which time the air filters are collected, packaged, and shipped under chain-of-custody to the radioanalytical laboratory. Samples were collected on November 9th and December 8th, 2015, and January 7th and 8th, 2016. The laboratory acknowledged receipt of the samples on November 10th, December 10th, and January 12th, respectively.

Using the met station data, the total volume of air sampled is calculated and submitted with the particulate filters. The met station data is presented in Appendix G. A meteorological data logger was installed on the Bridgeton Landfill property and began operations on May 26, 2015, allowing collection of site-specific temperature and barometric pressure data for the third-quarter sampling period.

In addition to gross alpha and gross beta analysis, the samples from December were analyzed for isotopic uranium, isotopic thorium and by gamma spectroscopy.

3.2.1 Gross Alpha and Gross Beta Results

Statistical analysis for gross alpha and beta results for each station in pCi/m^3 for the first three quarters of operation are shown in Table 4 and Table 6. The third-quarter results are reflected graphically in Figure 8 and Figure 9. A summary of the validated results is shown in Appendix A.

The results of the first three quarters (May 2015 through January 2016) of on-site monitoring for gross alpha and gross beta were compared to the results obtained from the EPA off-site monitoring program over the period from May 2014 through February 2015. The EPA off-site sampling results are shown in Table 5 and Table 7. Overall, the gross alpha results obtained from the 13 on-site stations are similar to or slightly higher than the results obtained from EPA's five off-site stations. Whether this difference is statistically significant cannot be determined until additional on-site data are obtained. The differences may reflect dust levels, seasonal conditions (pollen levels), differences in precipitation (i.e., soil moisture), or differences in the total particulate levels between the period covered by EPA's air monitoring program and the period covered by the on-site air monitoring program. The gross beta results obtained from the 13 on-site stations are similar to the gross beta results obtained from the EPA off-site monitoring locations.

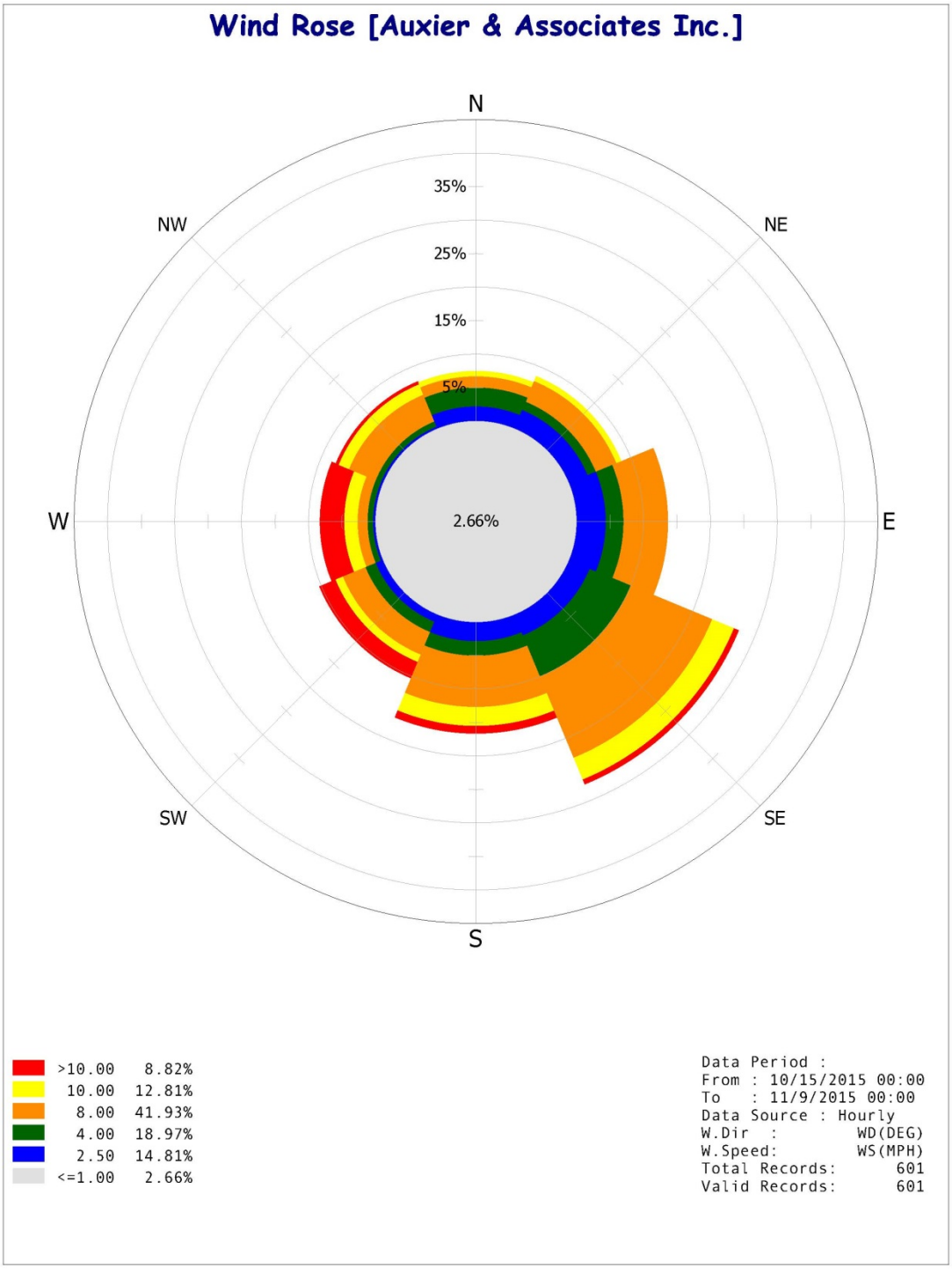

Figure 5: Wind Rose for November

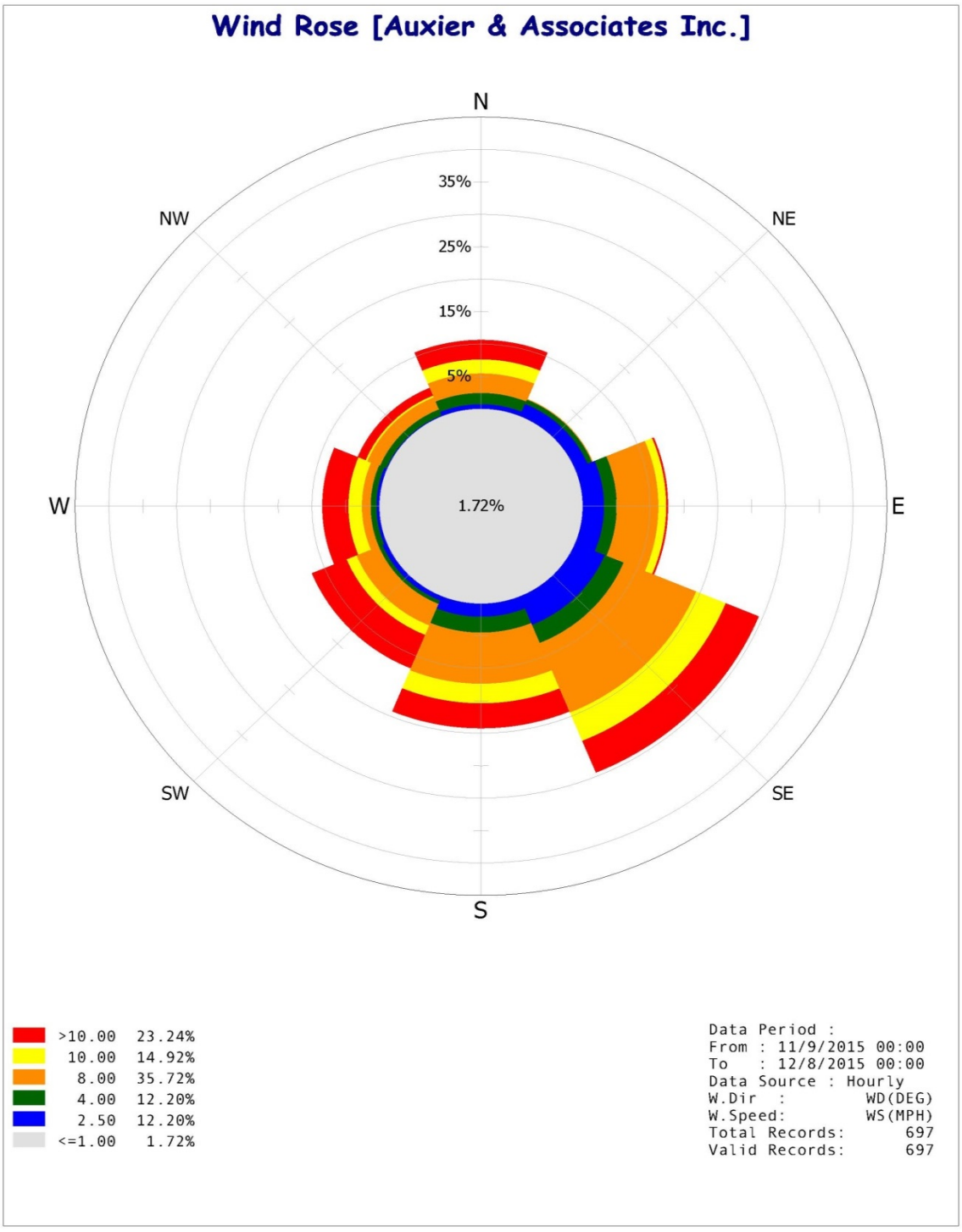

Figure 6: Wind Rose for December

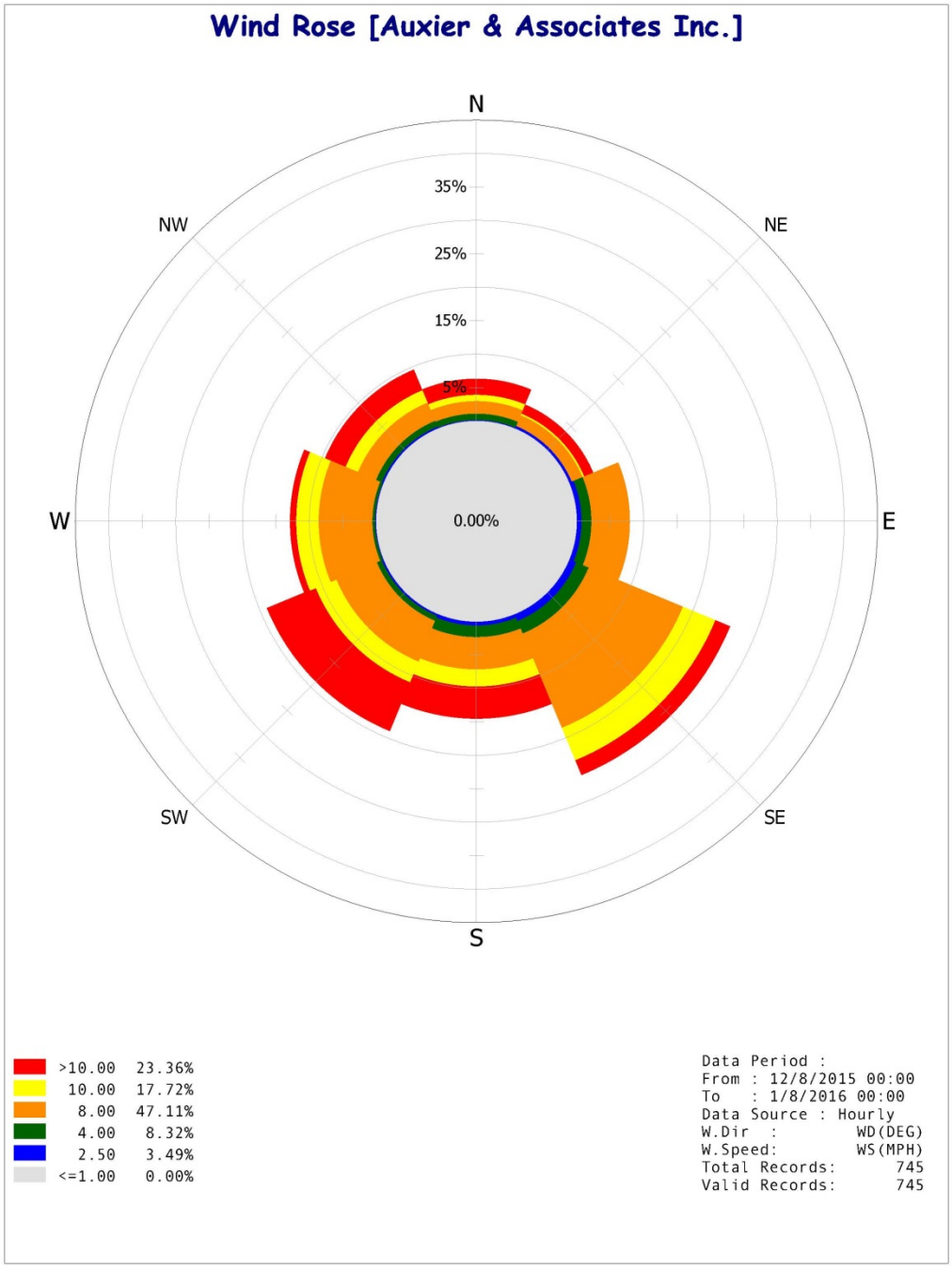

Figure 7: Wind Rose for January

Table 4 Summary of On-Site Gross Alpha Results

Summary Statistic	Station 1 (pCi/m^3)	Station 2 (pCi/m^3)	Station 3 (pCi/m^3)	Station 4 (pCi/m^3)	Station 5 (pCi/m^3)	Station 6 (pCi/m^3)	Station 7 (pCi/m^3)
Detections	9/9	5/9	9/9	9/9	9/9	9/9	9/9
Minimum Concentration	1.45E-03	1.54E-03 J+	1.52E-03	1.28E-03	1.40E-03	5.27E-04 J+	1.37E-03
Median Concentration	3.49E-03	3.15E-03	3.59E-03	3.85E-03	4.31E-03	4.27E-03	4.01E-03
Maximum Concentration	5.31E-03 J+	4.57E-03 J+	5.64E-03 J+	6.09E-03 J+	5.38E-03 J+	5.05E-03 J+	5.70E-03 J+

Summary Statistic	Station 8 (pCi/m^3)	Station 9 (pCi/m^3)	Station 10 (pCi/m^3)	Station 11 (pCi/m^3)	Station 12 (pCi/m^3)	Station 13 (pCi/m^3)
Detections	9/9	8/9	9/9	9/9	9/9	9/9
Minimum Concentration	1.50E-03	2.43E-03 J+	1.09E-03	1.95E-03	1.58E-03	1.40E-03
Median Concentration	4.57E-03	3.72E-03	3.15E-03	4.07E-03	4.26E-03	3.68E-03
Maximum Concentration	5.75E-03 J+	4.57E-03 J+	4.46E-03 J+	6.16E-03 J+	5.72E-03 J+	5.61E-03 J+

Table 5 Summary of Off-site EPA Gross Alpha Results (Tetra Tech 2015)

Summary Statistic	Station 1 (pCi/m^3)	Station 2 (pCi/m^3)	Station 3 (pCi/m^3)	Station 4 (pCi/m^3)	Station 5 (background) (pCi/m^3)
Detections	36/44	34/44	30/44	40/64	32/44
Minimum Concentration	1.99E-04 U	1.93E-04 U	1.02E-04 U	1.17E-04 U	1.10E-04 U
Median Concentration	6.42E-04	6.25E-04	6.32E-04	6.06E-04	6.97E-04
Maximum Concentration	1.63E-03 J	1.68E-03 J	1.58E-03 J	1.38E-03 J	1.65E-03 J

Table 6 Summary of On-Site Gross Beta Results

Summary Statistic	Station 1 (pCi/m^3)	Station 2 (pCi/m^3)	Station 3 (pCi/m^3)	Station 4 (pCi/m^3)	Station 5 (pCi/m^3)	Station 6 (pCi/m^3)	Station 7 (pCi/m^3)
Detections	9/9	5/9	9/9	9/9	9/9	9/9	9/9
Minimum Concentration	1.84E-02	1.94E-02	2.05E-02	1.76E-02	1.73E-02	4.06E-03 J+	1.56E-02
Median Concentration	3.39E-02	3.25E-02	3.25E-02	3.49E-02	3.57E-02	3.71E-02	3.18E-02
Maximum Concentration	4.45E-02 J+	3.93E-02 J+	4.60E-02 J+	4.77E-02 J+	4.31E-02 J+	4.43E-02 J+	4.34E-02 J+

Summary Statistic	Station 8 (pCi/m^3)	Station 9 (pCi/m^3)	Station 10 (pCi/m^3)	Station 11 (pCi/m^3)	Station 12 (pCi/m^3)	Station 13 (pCi/m^3)
Detections	9/9	8/9	9/9	9/9	9/9	9/9
Minimum Concentration	1.89E-02	2.21E-02 J+	1.53E-02	2.03E-02 J+	2.15E-02	1.86E-02
Median Concentration	3.55E-02	3.19E-02	2.60E-02	3.36E-02	3.79E-02	3.37E-02
Maximum Concentration	4.36E-02 J+	4.01E-02 J+	3.80E-02 J+	4.76E-02 J+	4.46E-02 J+	4.43E-02 J+

Table 7 Summary of Off-Site EPA Gross Beta Results (Tetra Tech 2015)

Summary Statistic	Station 1 (pCi/m^3)	Station 2 (pCi/m^3)	Station 3 (pCi/m^3)	Station 4 (pCi/m^3)	Station 5 (background) (pCi/m^3)
Detections	44/44	44/44	44/44	64/64	44/44
Minimum Concentration	1.15E-02	4.13E-03 J	1.32E-02 J	1.16E-02 J	1.21E-02 J
Median Concentration	1.98E-02	2.05E-02	2.04E-02	1.87E-02	1.93E-02
Maximum Concentration	3.95E-02	4.36E-02	3.96E-02	4.15E-02	4.31E-02

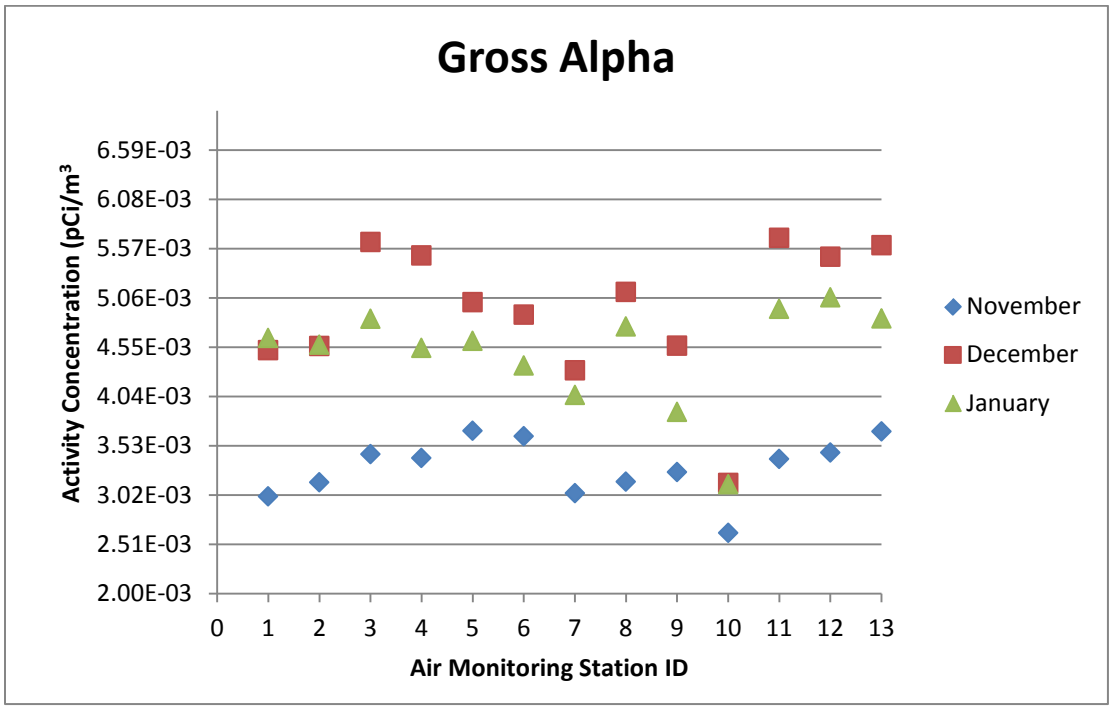

Figure 8 Graphical Representation of Gross Alpha Results in pCi/m^3

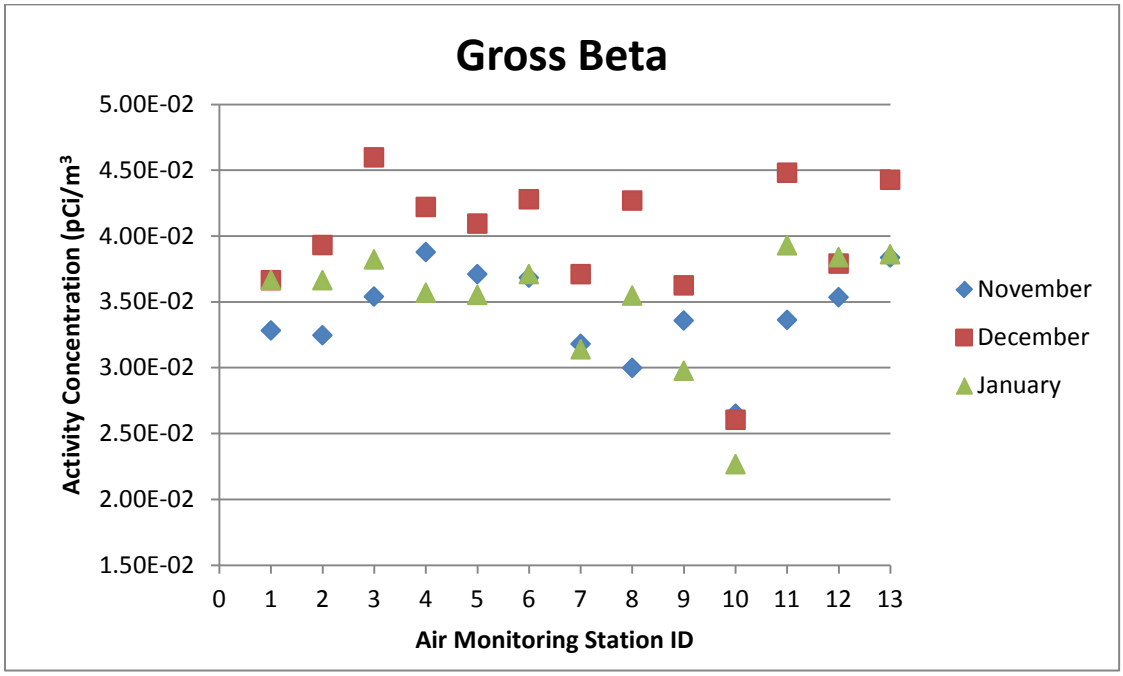

Figure 9 Graphical Representation of Gross Beta Results in pCi/m^3

3.2.2 Isotopic and gamma spectroscopy results

For the first quarter of sampling (May through July), May and June particulate samples were analyzed for isotopic thorium, uranium, and by gamma spectroscopy. The middle month of subsequent quarters will be submitted for isotopic analysis and gamma spectroscopy. For the third quarter, the particulate samples for December were analyzed by isotopic analyses and gamma spectroscopy.

The isotopic and the gamma spectroscopy results demonstrate only naturally occurring radioactive materials as expected. Statistics for thorium-230, uranium-238, and combined radium results (the sum of actinium-228 (for radium-228) and bismuth-214 (for radium-226) from gamma spectrometry) for each station in pCi/m^3 for May, June, September, and December are shown in Table 10, Table 11, and Table 12. A summary of the validated results are shown in Appendix B.

The results of on-site monitoring for uranium-238, thorium-230 and combined radium were also compared to the results obtained from the EPA off-site monitoring program over the period from May 2014 through February 2015. The EPA off-site sampling results are shown in Table 13. In all cases, the maximum isotopic uranium and thorium and combined radium results obtained from the 13 on-site stations are lower than the results obtained from EPA's five off-site stations.

The isotopic results were converted to µCi/ml and compared to 10 C.F.R. § 20 Appendix B Effluent Limits. These effluent limits, established by the U.S. Department of Energy, set forth standards for protection of the public against radiation emissions. The results are well below the applicable effluent limits, as shown in Appendix C.

Table 8 Thorium-230 Statistics for May, June, September and December

Summary Statistic	Station 1 (pCi/m^3)	Station 2 (pCi/m^3)	Station 3 (pCi/m^3)	Station 4 (pCi/m^3)	Station 5 (pCi/m^3)	Station 6 (pCi/m^3)	Station 7 (pCi/m^3)
Detections	4/4	4/4	4/4	4/4	4/4	4/4	4/4
Minimum Concentration	1.75E-05 J	8.08E-06	1.90E-05	3.14E-05	2.85E-05 J+	1.05E-05 J	2.93E-05
Median Concentration	2.91E-05	2.76E-05	4.37E-05	4.34E-05	3.16E-05	4.55E-05	4.74E-05
Maximum Concentration	6.58E-05 J+	5.18E-05 J+	7.03E-05 J+	4.94E-05 J+	7.02E-05 J+	8.06E-05 J+	7.22E-05 J+

Summary Statistic	Station 8 (pCi/m^3)	Station 9 (pCi/m^3)	Station 10 (pCi/m^3)	Station 11 (pCi/m^3)	Station 12 (pCi/m^3)	Station 13 (pCi/m^3)
Detections	4/4	4/4	4/4	4/4	4/4	4/4
Minimum Concentration	1.93E-05	2.34E-05 J+	2.66E-05	2.23E-05	3.51E-05 J	1.78E-05
Median Concentration	4.48E-05	3.05E-05	5.20E-05	5.64E-05	6.50E-05	3.12E-05
Maximum Concentration	5.87E-05 J+	4.84E-05 J+	7.20E-05 J+	8.19E-05 J+	8.64E-05 J+	4.39E-05 J

Table 9 Uranium-238 Statistics for May, June, September and December

Summary Statistic	Station 1 (pCi/m^3)	Station 2 (pCi/m^3)	Station 3 (pCi/m^3)	Station 4 (pCi/m^3)	Station 5 (pCi/m^3)	Station 6 (pCi/m^3)	Station 7 (pCi/m^3)
Detections	4/4	4/4	4/4	4/4	4/4	4/4	4/4
Minimum Concentration	2.45E-05 J+	1.84E-05 J+	2.99E-05 J+	2.43E-05 J+	1.38E-05 J	2.09E-05	2.12E-05 J+
Median Concentration	2.86E-05	3.05E-05	3.23E-05	3.10E-05	3.07E-05	2.41E-05	2.93E-05
Maximum Concentration	3.36E-05	3.43E-05	5.08E-05 J	3.65E-05 J	4.28E-05 J	3.19E-05	4.32E-05 J

Summary Statistic	Station 8 (pCi/m^3)	Station 9 (pCi/m^3)	Station 10 (pCi/m^3)	Station 11 (pCi/m^3)	Station 12 (pCi/m^3)	Station 13 (pCi/m^3)
Detections	4/4	4/4	4/4	4/4	4/4	4/4
Minimum Concentration	2.30E-05 J+	2.36E-05 J+	2.60E-05 J+	2.39E-05 J+	2.23E-05 J+	1.95E-05 J
Median Concentration	2.91E-05	3.32E-05	3.49E-05	2.91E-05	2.61E-05	2.69E-05
Maximum Concentration	4.61E-05 J	3.57E-05 J+	4.34E-05 J+	3.96E-05	4.13E-05	3.49E-05

Table 10 Total Radium Statistics for May, June, September and December

Summary Statistic	Station 1 (pCi/m^3)	Station 2 (pCi/m^3)	Station 3 (pCi/m^3)	Station 4 (pCi/m^3)	Station 5 (pCi/m^3)	Station 6 (pCi/m^3)	Station 7 (pCi/m^3)
Detections	2/4	3/4	3/4	3/4	3/4	2/4	3/4
Minimum Concentration	6.58E-05 J	1.64E-04	7.11E-05	1.44E-04	4.93E-05	-1.94E-04	2.19E-04
Median Concentration	1.56E-04	1.71E-04	1.73E-04	2.22E-04	1.06E-04	2.20E-04	2.83E-04
Maximum Concentration	3.22E-04	3.27E-04	3.23E-04	3.18E-04	1.34E-04	3.50E-04	3.94E-04

Summary Statistic	Station 8 (pCi/m^3)	Station 9 (pCi/m^3)	Station 10 (pCi/m^3)	Station 11 (pCi/m^3)	Station 12 (pCi/m^3)	Station 13 (pCi/m^3)
Detections	4/4	0/4	2/4	4/4	1/4	3/4
Minimum Concentration	5.86E-05	2.75E-05	-1.43E-05	1.95E-04	2.61E-05	1.15E-04
Median Concentration	1.62E-04	4.44E-05	1.20E-04	2.43E-04	1.33E-04	1.82E-04
Maximum Concentration	2.71E-04	8.41E-05	2.26E-04	3.73E-04	2.38E-04	3.50E-04

Table 11 Summary of Isotopic and Radium Results (Tetra Tech 2015)

SUMMARY STATISTICS OF URANIUM-238 RESULTS	Station 1 (pCi/m^3)	Station 2 (pCi/m^3)	Station 3 (pCi/m^3)	Station 4 (pCi/m^3)	Station 5 (reference) (pCi/m^3)
Detections	19/44	24/44	22/44	21/64	14/44
Minimum Concentration	-1.61E-04 U	-8.55E-05 U	-4.42E-05 U	-1.34E-05 U	-2.39E-05 U
Median Concentration	9.38E-05	1.24E-04	1.12E-04	1.03E-04	1.02E-04
Maximum Concentration	6.22E-04 J	1.08E-03 J	3.86E-04 J	3.07E-04 J	2.25E-04 J
SUMMARY STATISTICS OF THORIUM-230 RESULTS	**Station 1** (pCi/m^3)	**Station 2** (pCi/m^3)	**Station 3** (pCi/m^3)	**Station 4** (pCi/m^3)	**Station 5 (reference)** (pCi/m^3)
Detections	42/44	39/44	42/44	55/64	42/44
Minimum Concentration	1.77E-04 U	2.63E-04 J	1.37E-04 J	1.81E-04 J	2.71E-04 U
Median Concentration	4.71E-04	5.66E-04	5.10E-04	5.38E-04	5.17E-04
Maximum Concentration	4.37E-03	1.36E-03 J	8.86E-04 J	1.80E-03 J	1.99E-03 J
SUMMARY STATISTICS OF TOTAL ALPHA-EMITTING RADIUM RESULTS	**Station 1** (pCi/m^3)	**Station 2** (pCi/m^3)	**Station 3** (pCi/m^3)	**Station 4** (pCi/m^3)	**Station 5 (reference)** (pCi/m^3)
Detections	3/43	4/43	3/43	3/63	2/43
Minimum Concentration	-2.50E-04 U	-6.83E-04 U	1.56E-04 U	-4.86E-04 U	-4.34E-04 U
Median Concentration	4.49E-04	4.55E-04	3.05E-04	4.58E-04	4.68E-04
Maximum Concentration	1.10E-03 J	1.80E-03 JG	2.01E-03	3.66E-03 J	4.40E-03

3.3 VOC RESULTS

Prior to August 2015, the laboratory reported 26 VOCs from the analysis of the Radiello passive/diffusive samples. In August 2015, the laboratory issued a request to discontinue reporting 2-propanol (rubbing alcohol) from the Radiello 130 reporting list. The EPA approved this request via email on August 11, 2015. In accordance with an EPA suggestion received October 16, 2015, VOC sampling was moved for the 3rd quarter sampling period from Station 11 to Station 12. The third quarter laboratory report includes results for 1,2,4, Trimethylbenzene and 1,1,2,2 Tetrachloroethane. 1,2,4, Trimethylbenzene is on the Radiello 130 Full List of Target Analytes. 1,1,2,2 Tetrachloroethane was inadvertently included in the report and will not be included in subsequent reports. The third-quarter validated VOC results are presented in Appendix D.

Table 12 provides a statistical summary of the first three quarters of sampling for the 15 VOCs with results above the laboratory reporting limits. The table includes a statistical summary of the seven samples collected at Station 12 during the third quarter monitoring period. Values are presented in $\mu g/m^3$. The remaining 11 VOCs for which the laboratory analyzed were not detected above the reporting limit, and include 1,1,1-Trichloroethane, 1,2-Dichloroethane, 1,4-Dichlorobenzene, 4-Methyl,-2-Pentanone, Chlorobenzene, Ethanol, Methyl-tert-butyl ether, Naphthalene, Propylbenzene, Styrene, and Trichloroethene.

An anomalous result for Toluene of 19 $\mu g/m^3$ occurred for the 6/24/15 to 7/8/15 sampling period at sampling Station 5. Station 5 is located at the intersection of St. Charles Rock Road and the facility entrance. Toluene is an additive in gasoline, paint thinners, and paints, and is frequently used in laboratories as a solvent. The anomalous Toluene value was not included in the statistical treatment of the data. Trip blanks are now included with the samples to assist in evaluating the source of the sample exposures.

EPA performed similar off-site sampling for VOCs using passive/diffusive samplers from December 2014 to March 2015. However, the EPA sampled for seven days except for one period in January in which they sampled for 14 days. They noted no significant difference between the seven and 14-day sample results. Table 13 presents the results obtained from the five on-site monitoring stations compared to the results obtained from the EPA's off-site monitoring program for those VOCs that were analyzed and detected by both programs (Tetra Tech 3 2015).

With the possible exception of the toluene results, the on-site results are similar to those obtained by EPA from the off-site monitoring locations

Table 12: VOC Statistical Summary

Station	1 (µg/m^3)	5 (µg/m^3)	7 (µg/m^3)	8 (µg/m^3)	11 (µg/m^3)	12 (µg/m^3)
Analyte	**2- Butanone (Methyl Ethyl Ketone)**					
No. Samples	21	20	21	19	13	7
No. Detects	21	20	21	19	12	7
Min	0.09	0.12	0.10	0.10	0.14	0.16
Median	0.18	0.20	0.22	0.20	0.18	0.32
Max	0.29	0.30	0.37	0.33	0.27	0.40
Analyte	**Benzene**					
No. Detects	17	16	18	16	9	7
Min	0.25	0.26	0.26	0.26	0.28	0.47
Median	0.37	0.40	0.40	0.38	0.30	0.46
Max	0.52	0.52	0.57	0.59	0.48	0.64
Analyte	**Cyclohexane**					
No. Detects	13	15	19	8	5	7
Min	0.10	0.09	0.09	0.10	0.10	0.09
Median	0.14	0.12	0.14	0.13	0.12	0.12
Max	0.19	0.15	0.20	0.16	0.15	0.17
Analyte	**Heptane**					
No. Detects	21	20	21	19	13	6
Min	0.18	0.13	0.15	0.12	0.12	0.16
Median	0.31	0.22	0.25	0.20	0.19	0.27
Max	0.61	0.34	0.35	0.30	0.41	0.32
Analyte	**o-Xylene**					
No. Detects	20	16	20	14	9	5
Min	0.07	0.09	0.09	0.09	0.08	0.10
Median	0.10	0.12	0.13	0.12	0.10	0.12
Max	0.28	0.15	0.19	0.13	0.17	0.15

1 (µg/m^3)	5 (µg/m^3)	7 (µg/m^3)	8 (µg/m^3)	11 (µg/m^3)	12 (µg/m^3)
1,2,4 Trimethylbenzene (October 30, 2015)					
8	7	8	6	NA	7
7	5	6	4	NA	5
ND	0.11	0.09	0.12	NA	0.13
ND	0.15	0.16	0.17	NA	0.19
ND	0.18	0.23	0.23	NA	0.22
Carbon Tetrachloride					
21	20	21	19	13	7
0.23	0.20	0.22	0.22	0.19	0.29
0.33	0.31	0.31	0.31	0.27	0.33
0.37	0.39	0.41	0.40	0.34	0.42
Ethyl Acetate					
1	4	14	1	2	0
0.33	0.28	0.27	0.25	0.25	ND
0.33	0.28	0.39	0.25	0.26	ND
0.33	0.35	0.51	0.25	0.26	ND
Hexane					
21	20	21	19	13	7
0.13	0.15	0.27	0.19	0.21	0.28
0.41	0.35	0.41	0.30	0.32	0.43
0.68	2.00	0.64	0.66	1.20	0.58
Tetrachloroethene					
19	8	15	6	3	3
0.08	0.09	0.09	0.08	0.10	0.10
0.18	0.10	0.10	0.10	0.12	0.12
0.47	0.14	0.17	0.15	0.20	0.12

1 (µg/m^3)	5 (µg/m^3)	7 (µg/m^3)	8 (µg/m^3)	11 (µg/m^3)	12 (µg/m^3)
Acetone					
21	20	21	19	13	7
16	14	18	14	7	7
0.15	0.18	0.13	0.13	0.15	0.21
0.26	0.33	0.38	0.31	0.28	0.59
0.71	0.77	1.20	0.90	0.36	0.13
Chloroform					
8	9	7	7	2	4
0.06	0.07	0.07	0.06	0.07	0.07
0.07	0.08	0.08	0.08	0.08	0.08
0.11	0.10	0.11	0.09	0.10	0.09
Ethyl Benzene					
20	20	21	18	12	6
0.08	0.07	0.07	0.07	0.08	0.09
0.10	0.11	0.14	0.11	0.11	0.13
0.25	0.17	0.18	0.16	0.15	0.16
m,p-Xylene					
21	20	21	19	13	7
0.21	0.16	0.15	0.15	0.18	0.15
0.30	0.33	0.41	0.34	0.31	0.34
0.87	0.48	0.58	0.46	0.49	0.44
Toluene					
21	20	21	19	13	7
0.43	0.41	0.39	0.34	0.32	0.32
0.64	0.66	0.86	0.62	0.57	0.58
1.30	0.94	1.20	0.86	0.87	0.90

Table 13 Common Analytes (µg/m^3)

VOC	EPA Off-site Result Range	EPA MDL	On-site Range	On-site MDL
Benzene	0.41-0.7	0.023-0.039	0.25-0.64	0.052
Ethyl benzene	0.13-0.37	0.006-0.08	0.07-0.25	0.010
m,p-Xylene	0.32-1.1	0.015-0.07	0.15-0.87	0.026
o-Xylene	0.12-0.39	0.0085-0.085	0.07-0.28	0.014
Methyl Tert-butyl ether	0.022-0.041	0.029-0.170.	ND	0.029
Toluene	1.1-1.2	0.03-0.2	0.32-1.30*	0.013
Trichloroethene	0.041-0.51	0.016-0.5	ND	0.012
Tetrachloroethene	0.084-0.46	0.018-0.14	0.08-0.47	0.014

*Maximum value does not include the value of 19 ug/m^3 reported for the July 8, 2015 sample as this result appears to be anomalous.

3.4 TLD RESULTS

Thirteen TLDs for station monitoring and a control badge were received from the laboratory for the third quarter of monitoring. The field crew deployed the control badge as a station dosimeter when requested to include a duplicate TLD at one of the stations. This practice continued for the third quarter monitoring period; however, as a result of an audit and subsequent corrective action, a dosimeter specifically designated as a duplicate badge was requested, received and deployed for the February 2016 monitoring period.

Third-quarter gross TLD measurements for all 13 monitoring stations, and the duplicate placed at station 11 (labeled 11A in the report), are shown in Appendix E. The statistics for the first three quarters are presented in Table 14.

TLDs more suited to outdoor conditions were identified and deployed in January 2016 for the 4th quarter sampling period. Also beginning in January 2016, trip blanks were included to assist in evaluating the source of sample exposures. The trip blank is stored in a lead-lined container during the sampling period, but shipped normally with the other TLDs. This allows for differentiating exposures that occur during shipping from exposures that occur during deployment.

Table 14 TLD Statistics

Statistic	Quarter 1 mrem	Quarter 2 mrem	Quarter 3 mrem
Minimum	23	25	30
Median	25	30	34
Max	70	35	41

3.5 RADON RESULTS

Radon results for the 13 monitoring stations range from < 0.4 pCi/L to 0.6 pCi/L. The results are presented in Appendix G.

4. REFERENCES

A&A 2014 — *Air Monitoring, Sampling, and QA/QC Plan, West Lake Superfund Site Operable Unit 1*, October, 2014.

A&A 2016 — West Lake Landfill Perimeter Air Monitoring First Quarter Report, May, June, and July, March 2016

MARLAP 2004 — "Multi-Agency Radiological Laboratory Analytical Protocols Manual" (MARLAP), Part I, July 2004.

NRC 1988 — *"Radioactive Material in the West Lake Landfill – Summary Report," U.S. Nuclear Regulatory Commission (NRC),* NUREG 1308 – Rev. 1, June 1988

RMC 1982 — *"Radiological Survey of the West Lake Landfill, St. Louis County, Missouri," Radiation Management Corporation (RMC),* NUREG/CR-2722, May 1982.

RMC 1981 — "Report on Site Visit – West Lake Landfill, St. Louis County, Missouri," RMC, 1981.

Tetra Tech 2015 — *Final Summary of Baseline Off-Site Air Monitoring Via Sampling for Volatile Organic Compounds and Hydrogen Sulfide by Application of Passive/Diffusive Sampling Methods*, Tetra Tech, Inc., October, 2015.

Tetra Tech 2015 — *Final Data Summary of Radiological Parameters Analyzed During Baseline Off-Site Air Monitoring*, Tetra Tech, Inc., October, 2015.

APPENDIX A

VALIDATED GROSS ALPHA AND GROSS BETA PARTICULATE RESULTS

Validated Gross Alpha and Gross Beta Air Particulate Results										
Client ID	Sample Date	Report Units	Gross Alpha				Gross Beta			
			RESULT	Final Q	CV	CSU	RESULT	Final Q	CV	CSU
ENGWESA001	5/27/15 16:12	pCi/m^3	1.45E-03		2.84E-05	1.83E-04	1.84E-02	J+	1.33E-04	2.55E-03
ENGWESA002	5/28/15 8:30	pCi/m^3	1.54E-03		3.73E-05	1.92E-04	1.94E-02	J+	1.62E-04	2.69E-03
ENGWESA003	5/28/15 9:06	pCi/m^3	1.52E-03		3.57E-05	1.90E-04	2.05E-02	J+	1.36E-04	2.84E-03
ENGWESA004	5/28/15 9:30	pCi/m^3	1.28E-03		3.37E-05	1.62E-04	1.76E-02	J+	1.27E-04	2.44E-03
ENGWESA005	5/27/15 15:08	pCi/m^3	1.40E-03		2.80E-05	1.76E-04	1.73E-02	J+	1.31E-04	2.41E-03
ENGWESA006	5/27/15 16:50	pCi/m^3	1.75E-03		3.76E-05	2.15E-04	1.92E-02	J+	1.63E-04	2.66E-03
ENGWESA007	5/27/15 12:00	pCi/m^3	1.37E-03		1.77E-05	1.75E-04	1.74E-02	J+	1.58E-04	2.42E-03
ENGWESA008	5/27/15 15:38	pCi/m^3	1.50E-03		2.77E-05	1.88E-04	1.89E-02	J+	1.66E-04	2.62E-03
ENGWESA009	5/28/15 10:42	pCi/m^3								
ENGWESA010	5/28/15 11:06	pCi/m^3	1.09E-03		3.66E-05	1.41E-04	1.53E-02	J+	1.59E-04	2.13E-03
ENGWESA011	5/27/15 9:10	pCi/m^3	1.95E-03		1.66E-05	2.37E-04	2.16E-02	J+	1.48E-04	3.00E-03
ENGWESA012	5/27/15 10:36	pCi/m^3	1.58E-03		2.77E-05	1.97E-04	2.15E-02	J+	1.66E-04	2.99E-03
ENGWESA013	5/27/15 11:17	pCi/m^3	1.40E-03		2.93E-05	1.78E-04	1.86E-02	J+	1.37E-04	2.59E-03
ENGWESA013 FD	5/27/15 11:17	pCi/m^3	1.81E-03		1.71E-05	2.22E-04	2.07E-02	J+	1.53E-04	2.87E-03
ENGWESA001	6/24/15 12:15	pCi/m^3	2.08E-03	J+	1.21E-04	2.52E-04	1.95E-02	J+	1.79E-04	2.71E-03
ENGWESA002	6/24/15 9:40	pCi/m^3	2.42E-03	J+	1.14E-04	2.88E-04	1.95E-02	J+	1.78E-04	2.71E-03
ENGWESA003	6/24/15 10:40	pCi/m^3	2.43E-03	J+	1.17E-04	2.90E-04	2.27E-02	J+	1.76E-04	3.15E-03
ENGWESA004	6/24/15 11:40	pCi/m^3	2.34E-03	J+	1.14E-04	2.80E-04	2.20E-02	J+	1.64E-04	3.06E-03
ENGWESA005	6/23/15 10:30	pCi/m^3	2.11E-03	J+	1.20E-04	2.56E-04	1.99E-02	J+	1.45E-04	2.76E-03
ENGWESA006	6/24/15 13:00	pCi/m^3	5.27E-04	J+	1.13E-04	7.93E-05	4.06E-03	J+	1.74E-04	5.74E-04
ENGWESA007	6/23/15 9:38	pCi/m^3	2.57E-03	J+	1.23E-04	3.07E-04	2.09E-02	J+	1.88E-04	2.90E-03
ENGWESA008	6/23/15 11:25	pCi/m^3	2.45E-03	J+	1.24E-04	2.93E-04	2.56E-02	J+	1.43E-04	3.55E-03
ENGWESA009	6/23/15 13:26	pCi/m^3	2.43E-03	J+	1.80E-04	3.00E-04	2.21E-02	J+	1.96E-04	3.07E-03
ENGWESA010	6/23/15 14:10	pCi/m^3	2.41E-03	J+	1.37E-04	2.90E-04	2.13E-02	J+	2.13E-04	2.96E-03
ENGWESA011	6/23/15 8:59	pCi/m^3	2.32E-03	J+	1.35E-04	2.80E-04	2.03E-02	J+	1.42E-04	2.82E-03
ENGWESA012	6/23/15 14:50	pCi/m^3	2.54E-03	J+	1.19E-04	3.02E-04	2.19E-02	J+	1.26E-04	3.03E-03
ENGWESA012 FD	6/23/15 14:50	pCi/m^3	2.46E-03	J+	1.13E-04	2.93E-04	2.19E-02	J+	1.45E-04	3.04E-03
ENGWESA013	6/23/15 15:30	pCi/m^3	2.71E-03	J+	1.12E-04	3.21E-04	2.27E-02	J+	1.55E-04	3.15E-03
ENGWESA001	7/22/15 14:20	pCi/m^3	3.39E-03		1.20E-04	3.95E-04	2.36E-02		2.40E-04	3.27E-03
ENGWESA002										
ENGWESA003	7/23/15 7:29	pCi/m^3	3.27E-03		1.22E-04	3.81E-04	2.42E-02		2.50E-04	3.36E-03
ENGWESA004	7/23/15 8:19	pCi/m^3	3.85E-03		1.19E-04	4.44E-04	2.57E-02		2.00E-04	3.56E-03
ENGWESA005	7/22/15 11:00	pCi/m^3	4.42E-03		1.43E-04	5.08E-04	2.60E-02		2.15E-04	3.60E-03
ENGWESA006	7/22/15 13:55	pCi/m^3	3.45E-03		1.29E-04	4.02E-04	2.27E-02		2.18E-04	3.15E-03
ENGWESA007	7/22/15 10:32	pCi/m^3	2.29E-03		1.33E-04	2.75E-04	1.56E-02		1.78E-04	2.17E-03
ENGWESA008	7/22/15 11:20	pCi/m^3	4.57E-03		1.54E-04	5.27E-04	2.82E-02		2.43E-04	3.91E-03
ENGWESA009	7/23/15 8:39	pCi/m^3	3.38E-03		1.25E-04	3.94E-04	2.34E-02		2.23E-04	3.25E-03
ENGWESA010	7/22/15 10:10	pCi/m^3	3.22E-03		1.33E-04	3.78E-04	2.03E-02		2.01E-04	2.82E-03
ENGWESA011	7/22/15 7:32	pCi/m^3	4.07E-03		1.24E-04	4.69E-04	2.49E-02		1.73E-04	3.46E-03
ENGWESA011 FD	7/22/15 7:32	pCi/m^3	4.63E-03		1.26E-04	5.32E-04	2.72E-02		1.69E-04	3.77E-03
ENGWESA012	7/22/15 8:20	pCi/m^3	3.86E-03		1.21E-04	4.45E-04	2.40E-02		1.82E-04	3.33E-03
ENGWESA013	7/22/15 8:35	pCi/m^3	3.18E-03		1.23E-04	3.72E-04	2.12E-02		1.87E-04	2.94E-03

Validated Gross Alpha and Gross Beta Air Particulate Results										
Client ID	Sample Date	Report Units	Gross Alpha				Gross Beta			
			RESULT	Final Q	CV	CSU	RESULT	Final Q	CV	CSU
ENGWESA001	8/19/2015	pCi/m3	3.49E-03	J+	1.18E-04	4.05E-04	3.39E-02	J+	1.83E-04	4.70E-03
ENGWESA002										
ENGWESA003	8/19/2015	pCi/m3	3.59E-03	J+	1.42E-04	4.20E-04	3.24E-02	J+	2.33E-04	4.49E-03
ENGWESA004	8/19/2015	pCi/m3	3.59E-03	J+	1.55E-04	4.21E-04	3.31E-02	J+	2.39E-04	4.58E-03
ENGWESA005	8/19/2015	pCi/m3	4.04E-03	J+	1.37E-04	4.66E-04	3.67E-02	J+	2.02E-04	5.09E-03
ENGWESA006	8/19/2015	pCi/m3	4.27E-03	J+	1.38E-04	4.95E-04	4.00E-02	J+	1.87E-04	5.53E-03
ENGWESA007	8/19/2015	pCi/m3	4.01E-03	J+	1.22E-04	4.63E-04	3.61E-02	J+	1.28E-04	5.00E-03
ENGWESA008	8/19/2015	pCi/m3	4.52E-03	J+	1.23E-04	5.19E-04	4.36E-02	J+	1.38E-04	6.04E-03
ENGWESA009	8/19/2015	pCi/m3	3.56E-03	J+	1.51E-04	4.18E-04	3.03E-02	J+	2.25E-04	4.20E-03
ENGWESA010	8/19/2015	pCi/m3	3.80E-03	J+	1.26E-04	4.42E-04	3.27E-02	J+	1.29E-04	4.53E-03
ENGWESA010 FD	8/19/2015	pCi/m3	4.25E-03	J+	1.31E-04	4.90E-04	3.41E-02	J+	1.38E-04	4.72E-03
ENGWESA011	8/19/2015	pCi/m3	2.10E-03	J+	1.40E-04	2.54E-04	2.05E-02	J+	1.39E-04	2.85E-03
ENGWESA012	8/19/2015	pCi/m3	4.26E-03	J+	1.19E-04	4.90E-04	3.84E-02	J+	1.07E-04	5.32E-03
ENGWESA013	8/19/2015	pCi/m3	3.69E-03	J+	1.53E-04	4.32E-04	3.37E-02	J+	1.74E-04	4.67E-03
ENGWESA001	9/16/2015	pCi/m3	5.31E-03	J+	1.54E-05	6.04E-04	4.45E-02	J+	2.33E-04	6.16E-03
ENGWESA002										
ENGWESA003	9/17/2015	pCi/m3	4.78E-03	J+	2.09E-05	5.46E-04	4.37E-02	J+	2.40E-04	6.05E-03
ENGWESA004	9/17/2015	pCi/m3	6.09E-03	J+	1.77E-05	6.90E-04	4.77E-02	J+	2.51E-04	6.60E-03
ENGWESA005	9/16/2015	pCi/m3	5.38E-03	J+	3.33E-05	6.13E-04	4.31E-02	J+	2.41E-04	5.97E-03
ENGWESA006	9/16/2015	pCi/m3	5.05E-03	J+	1.82E-05	5.77E-04	4.43E-02	J+	2.27E-04	6.13E-03
ENGWESA007	9/16/2015	pCi/m3	5.70E-03	J+	2.54E-05	6.48E-04	4.34E-02	J+	1.91E-04	6.02E-03
ENGWESA008	9/16/2015	pCi/m3	5.75E-03	J+	3.57E-05	6.53E-04	4.63E-02	J+	1.64E-04	6.41E-03
ENGWESA009	9/17/2015	pCi/m3	4.37E-03	J+	1.92E-05	4.99E-04	4.01E-02	J+	1.62E-04	5.55E-03
ENGWESA009 FD	9/17/2015	pCi/m3	4.26E-03	J+	3.14E-05	5.11E-04	3.58E-02	J+	1.55E-04	4.96E-03
ENGWESA010	9/17/2015	pCi/m3	4.46E-03	J+	3.95E-05	4.87E-04	3.80E-02	J+	2.28E-04	5.26E-03
ENGWESA011	9/16/2015	pCi/m3	6.16E-03	J+	2.68E-05	7.00E-04	4.76E-02	J+	1.87E-04	6.58E-03
ENGWESA012	9/17/2015	pCi/m3	5.72E-03	J+	3.29E-05	6.50E-04	4.46E-02	J+	2.32E-04	6.17E-03
ENGWESA013	9/17/2015	pCi/m3	5.23E-03	J+	2.52E-05	5.97E-04	3.90E-02	J+	1.66E-04	5.41E-03
ENGWESA001	10/14/2015	pCi/m3	4.72E-03	J+	1.83E-05	5.39E-04	3.86E-02	J+	1.52E-04	5.35E-03
ENGWESA002										
ENGWESA003	10/15/2015	pCi/m3	3.79E-03	J+	3.58E-05	4.38E-04	3.25E-02	J+	1.84E-04	4.50E-03
ENGWESA004	10/15/2015	pCi/m3	4.55E-03	J+	1.92E-05	5.22E-04	3.49E-02	J+	1.45E-04	4.83E-03
ENGWESA005	10/14/2015	pCi/m3	4.31E-03	J+	3.27E-05	4.95E-04	3.57E-02	J+	1.87E-04	4.95E-03
ENGWESA006	10/14/2015	pCi/m3	4.67E-03	J+	3.10E-05	5.35E-04	3.74E-02	J+	2.22E-04	5.18E-03
ENGWESA007	10/14/2015	pCi/m3	4.94E-03	J+	3.69E-05	5.65E-04	3.69E-02	J+	2.14E-04	5.11E-03
ENGWESA008	10/14/2015	pCi/m3	5.46E-03	J+	2.18E-05	6.21E-04	4.25E-02	J+	2.52E-04	5.89E-03
ENGWESA009	10/15/2015	pCi/m3	4.17E-03	J+	2.97E-05	4.79E-04	3.52E-02	J+	2.12E-04	4.87E-03
ENGWESA010	10/15/2015	pCi/m3	4.18E-03	J+	4.02E-05	4.83E-04	3.41E-02	J+	2.12E-04	4.73E-03
ENGWESA011	10/14/2015	pCi/m3	4.61E-03	J+	2.27E-05	5.29E-04	3.74E-02	J+	2.22E-04	5.18E-03
ENGWESA012	10/15/2015	pCi/m3	4.86E-03	J+	3.67E-05	5.56E-04	3.98E-02	J+	2.37E-04	5.51E-03
ENGWESA013	10/15/2015	pCi/m3	3.28E-03	J+	2.73E-05	3.82E-04	3.04E-02	J+	2.36E-04	4.21E-03
ENGWESA013 FD	10/15/2015	pCi/m3	3.24E-03	J+	2.51E-05	3.79E-04	3.08E-02	J+	1.98E-04	4.27E-03

Validated Gross Alpha and Gross Beta Air Particulate Results										
Client ID	Sample Date	Report Units	Gross Alpha				Gross Beta			
			RESULT	Final Q	CV	CSU	RESULT	Final Q	CV	CSU
ENGWESA001	11/9/2015	pCi/m3	3.01E-03	J+	3.55E-04	4.55E-05	3.28E-02	J+	4.55E-03	2.55E-04
ENGWESA002	11/9/2015	pCi/m3	3.15E-03	J+	3.72E-04	4.75E-05	3.25E-02	J+	4.50E-03	2.66E-04
ENGWESA003	11/9/2015	pCi/m3	3.44E-03	J+	4.05E-04	5.26E-05	3.54E-02	J+	4.91E-03	2.58E-04
ENGWESA004	11/9/2015	pCi/m3	3.40E-03	J+	3.98E-04	2.41E-05	3.88E-02	J+	5.37E-03	2.12E-04
ENGWESA005	11/9/2015	pCi/m3	3.69E-03	J+	4.29E-04	3.28E-05	3.71E-02	J+	5.14E-03	2.66E-04
ENGWESA006	11/9/2015	pCi/m3	3.63E-03	J+	4.26E-04	5.82E-05	3.68E-02	J+	5.10E-03	2.48E-04
ENGWESA007	11/9/2015	pCi/m3	3.04E-03	J+	3.58E-04	4.54E-05	3.18E-02	J+	4.41E-03	2.15E-04
ENGWESA007 FD	11/9/2015	pCi/m3	4.34E-03	J+	5.11E-04	7.05E-05	4.08E-02	J+	5.65E-03	3.22E-04
ENGWESA008	11/9/2015	pCi/m3	3.16E-03	J+	3.70E-04	4.27E-05	3.00E-02	J+	4.15E-03	1.71E-04
ENGWESA009	11/9/2015	pCi/m3	3.26E-03	J+	3.85E-04	5.37E-05	3.36E-02	J+	4.65E-03	2.86E-04
ENGWESA010	11/9/2015	pCi/m3	2.63E-03	J+	3.16E-04	5.42E-05	2.65E-02	J+	3.68E-03	2.25E-04
ENGWESA011	11/9/2015	pCi/m3	3.39E-03	J+	3.97E-04	4.16E-05	3.36E-02	J+	4.66E-03	2.23E-04
ENGWESA012	11/9/2015	pCi/m3	3.46E-03	J+	4.05E-04	3.36E-05	3.54E-02	J+	4.90E-03	2.06E-04
ENGWESA013	11/9/2015	pCi/m3	3.68E-03	J+	4.30E-04	2.86E-05	3.84E-02	J+	5.31E-03	2.27E-04
ENGWESA001	12/8/2015	pCi/m3	4.52E-03	J+	5.17E-04	1.20E-04	3.66E-02	J+	5.07E-03	1.90E-04
ENGWESA002	12/8/2015	pCi/m3	4.56E-03	J+	5.22E-04	1.22E-04	3.93E-02	J+	5.44E-03	2.26E-04
ENGWESA003	12/8/2015	pCi/m3	5.64E-03	J+	6.41E-04	1.31E-04	4.60E-02	J+	6.36E-03	2.70E-04
ENGWESA004	12/8/2015	pCi/m3	5.50E-03	J+	6.27E-04	1.35E-04	4.22E-02	J+	5.84E-03	2.50E-04
ENGWESA005	12/8/2015	pCi/m3	5.01E-03	J+	5.72E-04	1.38E-04	4.09E-02	J+	5.67E-03	1.86E-04
ENGWESA005 FD	12/8/2015	pCi/m3	5.77E-03	J+	6.56E-04	1.44E-04	4.28E-02	J+	5.92E-03	2.02E-04
ENGWESA006	12/8/2015	pCi/m3	4.89E-03	J+	5.56E-04	1.21E-04	3.80E-02	J+	5.26E-03	1.75E-04
ENGWESA007	12/8/2015	pCi/m3	4.31E-03	J+	4.95E-04	1.31E-04	3.71E-02	J+	5.14E-03	1.71E-04
ENGWESA008	12/8/2015	pCi/m3	5.12E-03	J+	5.83E-04	1.32E-04	4.27E-02	J+	5.91E-03	2.33E-04
ENGWESA009	12/8/2015	pCi/m3	4.57E-03	J+	5.22E-04	1.29E-04	3.62E-02	J+	5.02E-03	1.79E-04
ENGWESA010	12/8/2015	pCi/m3	3.15E-03	J+	3.66E-04	1.20E-04	2.60E-02	J+	3.61E-03	2.04E-04
ENGWESA011	12/8/2015	pCi/m3	5.68E-03	J+	6.46E-04	1.22E-04	4.48E-02	J+	6.20E-03	1.87E-04
ENGWESA012	12/8/2015	pCi/m3	5.49E-03	J+	6.23E-04	1.21E-04	3.79E-02	J+	5.25E-03	1.59E-04
ENGWESA013	12/8/2015	pCi/m3	5.61E-03	J+	6.37E-04	1.21E-04	4.43E-02	J+	6.13E-03	2.29E-04
ENGWESA001	1/7/2016	pCi/m3	4.64E-03	J+	5.28E-04	1.17E-04	3.67E-02	J+	5.08E-03	1.30E-04
ENGWESA002	1/7/2016	pCi/m3	4.57E-03	J+	5.20E-04	1.02E-04	3.66E-02	J+	5.07E-03	1.68E-04
ENGWESA003	1/7/2016	pCi/m3	4.84E-03	J+	5.49E-04	1.00E-04	3.82E-02	J+	5.29E-03	1.35E-04
ENGWESA004	1/7/2016	pCi/m3	4.54E-03	J+	5.16E-04	1.00E-04	3.57E-02	J+	4.94E-03	1.16E-04
ENGWESA005	1/8/2016	pCi/m3	4.61E-03	J+	5.24E-04	9.47E-05	3.55E-02	J+	4.92E-03	1.24E-04
ENGWESA005 FD	1/8/2016	pCi/m3	4.28E-03	J+	4.87E-04	9.75E-05	3.43E-02	J+	4.75E-03	1.31E-04
ENGWESA006	1/7/2016	pCi/m3	4.36E-03	J+	4.96E-04	9.78E-05	3.71E-02	J+	5.14E-03	8.68E-05
ENGWESA007	1/8/2016	pCi/m3	4.06E-03	J+	4.63E-04	1.00E-04	3.14E-02	J+	4.35E-03	1.34E-04
ENGWESA008	1/7/2016	pCi/m3	4.76E-03	J+	5.41E-04	1.11E-04	3.55E-02	J+	4.91E-03	1.24E-04
ENGWESA009	1/7/2016	pCi/m3	3.88E-03	J+	4.43E-04	9.99E-05	2.97E-02	J+	4.12E-03	1.14E-04
ENGWESA010	1/7/2016	pCi/m3	3.13E-03	J+	3.66E-04	1.09E-04	2.27E-02	J+	3.14E-03	1.39E-04
ENGWESA011	1/8/2016	pCi/m3	4.95E-03	J+	5.61E-04	9.80E-05	3.93E-02	J+	5.44E-03	9.57E-05
ENGWESA012	1/7/2016	pCi/m3	5.07E-03	J+	5.76E-04	1.07E-04	3.84E-02	J+	5.32E-03	1.43E-04
ENGWESA013	1/7/2016	pCi/m3	4.85E-03	J+	5.50E-04	1.17E-04	3.86E-02	J+	5.34E-03	1.30E-04

APPENDIX B

VALIDATED ISOTOPIC AIR PARTICULATE RESULTS

Validated Isotopic Air Particulate Results

Client ID	Sample Date	Report Units	Actinium-227				Actinium-228			
			RESULT	FINAL Q	CSU	CV	RESULT	FINAL Q	CSU	CV
ENGWESA001	5/27/15 16:12	pCi/m^3	1.46E-05	J	8.38E-06	4.53E-07	1.70E-04	J	2.05E-04	1.61E-04
ENGWESA002	5/28/15 8:30	pCi/m^3	7.11E-06	J	6.87E-06	6.49E-07	1.66E-04	J	1.31E-04	1.02E-04
ENGWESA003	5/28/15 9:06	pCi/m^3	6.45E-06	J	4.67E-06	7.79E-07	2.14E-04	J	1.55E-04	1.20E-04
ENGWESA004	5/28/15 9:30	pCi/m^3	6.49E-06	J	4.64E-06	6.89E-08	1.16E-04	U	2.14E-04	1.70E-04
ENGWESA005	5/27/15 15:08	pCi/m^3	6.78E-06	J	4.72E-06	5.47E-07	-5.33E-06	U	4.55E-05	8.22E-05
ENGWESA006	5/27/15 16:50	pCi/m^3	1.04E-05	J	6.18E-06	1.07E-06	-2.39E-04	U	2.59E-04	1.68E-04
ENGWESA007	5/27/15 12:00	pCi/m^3	8.20E-06	J	5.43E-06	2.17E-07	1.78E-04	J	1.56E-04	1.22E-04
ENGWESA008	5/27/15 15:38	pCi/m^3	3.42E-06	J	3.30E-06	3.10E-07	1.63E-04	J	1.47E-04	1.17E-04
ENGWESA009	5/28/15 10:42	pCi/m^3								
ENGWESA010	5/28/15 11:06	pCi/m^3	8.73E-06	J	5.95E-06	8.34E-08	1.14E-04	U	1.97E-04	1.59E-04
ENGWESA011	5/27/15 9:10	pCi/m^3	6.58E-06	J	4.86E-06	5.94E-07	2.31E-04	J	1.62E-04	1.25E-04
ENGWESA012	5/27/15 10:36	pCi/m^3	1.24E-06	J	2.68E-06	1.07E-06	-1.02E-05	U	1.41E-04	9.96E-05
ENGWESA013	5/27/15 11:17	pCi/m^3	4.24E-06	J	4.43E-06	2.87E-07	3.27E-04	J	3.79E-04	2.91E-04
ENGWESA001	6/24/15 12:15	pCi/m^3	-5.48E-07	U	2.20E-06	6.35E-07	1.91E-05	U	1.76E-04	1.25E-04
ENGWESA002	6/24/15 9:40	pCi/m^3	6.41E-06	J	6.43E-06	8.40E-07	7.75E-05	U	1.22E-04	9.35E-05
ENGWESA003	6/24/15 10:40	pCi/m^3	8.10E-07	U	2.39E-06	8.98E-07	1.15E-04	J	1.23E-04	9.81E-05
ENGWESA004	6/24/15 11:40	pCi/m^3	1.69E-06	J	2.35E-06	3.99E-07	1.78E-04	J	1.40E-04	1.09E-04
ENGWESA005	6/23/15 10:30	pCi/m^3	5.00E-06	J	4.52E-06	5.37E-07	1.26E-04	J	1.34E-04	1.06E-04
ENGWESA006	6/24/15 13:00	pCi/m^3	3.69E-06	J	3.44E-06	5.23E-07	6.61E-05	U	2.00E-04	1.54E-04
ENGWESA007	6/23/15 9:38	pCi/m^3	5.00E-06	J	4.72E-06	1.56E-06	1.81E-04	J	1.52E-04	1.17E-04
ENGWESA008	6/23/15 11:25	pCi/m^3	3.80E-06	J	4.08E-06	1.15E-06	4.46E-05	U	1.50E-04	1.09E-04
ENGWESA009	6/23/15 13:26	pCi/m^3	3.04E-06	J	3.71E-06	2.80E-07	-8.45E-06	U	2.07E-04	1.46E-04
ENGWESA010	6/23/15 14:10	pCi/m^3	3.90E-06	J	4.03E-06	1.01E-06	4.61E-05	U	1.46E-04	1.07E-04
ENGWESA011	6/23/15 8:59	pCi/m^3	1.63E-06	J	2.79E-06	4.17E-07	1.38E-04	J	1.46E-04	1.13E-04
ENGWESA012	6/23/15 14:50	pCi/m^3	1.99E-07	U	2.79E-06	1.22E-06	9.22E-05	U	1.64E-04	1.23E-04
ENGWESA013	6/23/15 15:30	pCi/m^3	-3.26E-06	U	2.14E-06	3.24E-06	1.33E-04	J	1.33E-04	1.02E-04

Validated Isotopic Air Particulate Results

Client ID	Sample Date	Report Units	Actinium-227				Actinium-228			
			RESULT	FINAL Q	CSU	CV	RESULT	FINAL Q	CSU	CV
ENGWESA001	9/16/15 11:17	pCi/m3	3.39E-06	J	4.73E-06	8.27E-07	1.07E-04	U	1.60E-04	1.26E-04
ENGWESA003	9/17/15 8:46	pCi/m3	3.51E-06	J	3.68E-06	6.29E-07	1.92E-04	J	1.31E-04	1.11E-04
ENGWESA004	9/17/15 9:02	pCi/m3	1.24E-06	J	2.21E-06	6.94E-07	1.54E-04	J	1.53E-04	1.23E-04
ENGWESA005	9/16/15 13:05	pCi/m3	5.90E-06	J	3.91E-06	1.69E-07	-2.92E-05	U	3.38E-04	2.48E-04
ENGWESA006	9/16/15 11:40	pCi/m3	2.75E-06	J	3.00E-06	6.21E-07	2.30E-04	J	1.43E-04	1.19E-04
ENGWESA007	9/16/15 13:20	pCi/m3	1.68E-06	J	2.15E-06	4.98E-07	1.77E-04	J	1.69E-04	1.37E-04
ENGWESA008	9/16/15 12:50	pCi/m3	2.04E-06	J	2.55E-06	8.00E-07	-1.01E-05	U	1.50E-04	1.05E-04
ENGWESA009	9/17/15 9:20	pCi/m3	2.87E-06	J	4.42E-06	1.55E-06	4.02E-06	U	3.33E-04	2.48E-04
ENGWESA010	9/17/15 9:46	pCi/m3	4.88E-06	J	3.67E-06	8.07E-07	1.29E-04	J	1.37E-04	1.11E-04
ENGWESA011	9/16/15 13:36	pCi/m3	2.93E-06	J	3.31E-06	1.38E-06	1.41E-04	J	1.71E-04	1.33E-04
ENGWESA012	9/17/15 8:02	pCi/m3	7.92E-07	J	1.51E-06	3.24E-07	1.07E-04	U	1.49E-04	1.19E-04
ENGWESA013	9/17/15 8:20	pCi/m3	1.67E-07	UJ	1.08E-06	4.05E-07	1.57E-04	J	1.50E-04	1.18E-04
ENGWESA001	12/8/2015	pCi/m3	-2.75E-06	U	2.91E-06	2.81E-06	8.39E-06	U	1.25E-04	8.92E-05
ENGWESA002	12/8/2015	pCi/m3	-2.09E-07	UJ	1.24E-06	2.75E-07	7.37E-05	U	1.44E-04	1.10E-04
ENGWESA003	12/8/2015	pCi/m3	1.64E-06	J	2.29E-06	4.05E-07	1.00E-05	U	1.51E-04	1.09E-04
ENGWESA004	12/8/2015	pCi/m3	-7.87E-07	U	2.01E-06	2.08E-06	3.62E-05	U	1.54E-04	1.12E-04
ENGWESA005	12/8/2015	pCi/m3	2.38E-06	J	4.64E-06	1.67E-06	-4.35E-04	U	1.59E-03	9.78E-04
ENGWESA006	12/8/2015	pCi/m3	1.05E-06	J	1.79E-06	2.84E-07	2.48E-05	U	1.40E-04	2.14E-04
ENGWESA007	12/8/2015	pCi/m3	-3.37E-07	U	1.35E-06	4.06E-07	2.17E-04	J	1.28E-04	1.10E-04
ENGWESA008	12/8/2015	pCi/m3	2.04E-07	U	1.32E-06	4.97E-07	3.49E-05	U	1.56E-04	1.13E-04
ENGWESA009	12/8/2015	pCi/m3	1.64E-06	J	2.14E-06	2.78E-07	5.54E-05	U	3.68E-04	2.78E-04
ENGWESA010	12/8/2015	pCi/m3	1.47E-06	J	2.61E-06	1.13E-06	-2.55E-05	U	1.40E-04	9.54E-05
ENGWESA011	12/8/2015	pCi/m3	5.54E-07	J	1.33E-06	1.89E-07	1.19E-04	U	1.57E-04	1.24E-04
ENGWESA012	12/8/2015	pCi/m3	1.17E-06	J	1.81E-06	1.83E-07	9.13E-05	U	1.40E-04	1.06E-04
ENGWESA013	12/8/2015	pCi/m3	9.89E-07	J	1.89E-06	4.07E-07	9.81E-05	U	1.45E-04	1.13E-04

Client ID	Sample Date	Report Units	Bismuth-214				Lead-210			
			RESULT	FINAL Q	CSU	CV	RESULT	FINAL Q	CSU	CV
ENGWESA001	5/27/15 16:12	pCi/m^3	1.52E-04	U	1.06E-04	8.54E-05	8.89E-03		1.41E-03	7.43E-04
ENGWESA002	5/28/15 8:30	pCi/m^3	1.61E-04	J	9.55E-05	7.81E-05	1.14E-02		1.36E-03	6.90E-04
ENGWESA003	5/28/15 9:06	pCi/m^3	1.09E-04	J	1.28E-04	1.04E-04	9.09E-03		1.36E-03	7.73E-04
ENGWESA004	5/28/15 9:30	pCi/m^3	8.94E-05	U	1.72E-04	9.25E-05	7.43E-03		1.08E-03	5.70E-04
ENGWESA005	5/27/15 15:08	pCi/m^3	1.01E-04	J	7.62E-05	5.93E-05	9.97E-03		1.29E-03	4.96E-04
ENGWESA006	5/27/15 16:50	pCi/m^3	4.51E-05	U	1.35E-04	9.22E-05	6.55E-03		1.05E-03	6.07E-04
ENGWESA007	5/27/15 12:00	pCi/m^3	2.16E-04		9.75E-05	7.85E-05	7.31E-03		1.01E-03	1.03E-03
ENGWESA008	5/27/15 15:38	pCi/m^3	5.24E-05	U	8.01E-05	6.06E-05	8.85E-03		1.28E-03	6.15E-04
ENGWESA009	5/28/15 10:42	pCi/m^3								
ENGWESA010	5/28/15 11:06	pCi/m^3	1.13E-04	J	1.97E-04	9.34E-05	6.20E-03		1.11E-03	7.03E-04
ENGWESA011	5/27/15 9:10	pCi/m^3	1.42E-04	J	9.24E-05	7.25E-05	8.42E-03		1.26E-03	7.09E-04
ENGWESA012	5/27/15 10:36	pCi/m^3	3.63E-05	U	7.94E-05	5.94E-05	9.05E-03		1.20E-03	6.13E-04
ENGWESA013	5/27/15 11:17	pCi/m^3	2.23E-05	U	2.09E-04	1.50E-04	2.02E-02		2.65E-03	1.53E-03
ENGWESA001	6/24/15 12:15	pCi/m^3	4.71E-05	U	9.88E-05	7.33E-05	8.51E-03		1.22E-03	5.56E-04
ENGWESA002	6/24/15 9:40	pCi/m^3	8.67E-05	J	8.36E-05	6.43E-05	9.67E-03		1.28E-03	6.05E-04
ENGWESA003	6/24/15 10:40	pCi/m^3	5.49E-05	U	7.74E-05	5.88E-05	1.01E-02		1.47E-03	7.28E-04
ENGWESA004	6/24/15 11:40	pCi/m^3	1.40E-04	J	8.60E-05	6.76E-05	1.03E-02		1.33E-03	6.04E-04
ENGWESA005	6/23/15 10:30	pCi/m^3	7.55E-06	U	8.02E-05	5.77E-05	9.31E-03		1.32E-03	6.10E-04
ENGWESA006	6/24/15 13:00	pCi/m^3	1.31E-04	J	2.15E-04	9.05E-05	1.00E-03	J	6.24E-04	5.00E-04
ENGWESA007	6/23/15 9:38	pCi/m^3	3.74E-05	U	7.19E-05	5.38E-05	1.06E-02		1.35E-03	4.84E-04
ENGWESA008	6/23/15 11:25	pCi/m^3	2.27E-04		9.51E-05	7.66E-05	9.34E-03		1.34E-03	7.27E-04
ENGWESA009	6/23/15 13:26	pCi/m^3	6.98E-05	U	1.03E-04	7.83E-05	9.50E-03		1.57E-03	8.94E-04
ENGWESA010	6/23/15 14:10	pCi/m^3	-2.02E-05	U	8.55E-05	5.99E-05	9.78E-03		1.30E-03	5.27E-04
ENGWESA011	6/23/15 8:59	pCi/m^3	5.87E-05	U	8.87E-05	6.65E-05	1.08E-02		1.47E-03	7.50E-04
ENGWESA012	6/23/15 14:50	pCi/m^3	5.21E-05	U	9.37E-05	7.02E-05	1.25E-02		1.62E-03	6.08E-04
ENGWESA013	6/23/15 15:30	pCi/m^3	3.74E-05	U	8.08E-05	5.99E-05	9.92E-03		1.34E-03	6.73E-04

Client ID	Sample Date	Report Units	Bismuth-214				Lead-210			
			RESULT	FINAL Q	CSU	CV	RESULT	FINAL Q	CSU	CV
ENGWESA001	9/16/15 11:17	pCi/m3	1.39E-04	J	9.07E-05	7.60E-05	2.54E-02		3.00E-03	7.42E-04
ENGWESA003	9/17/15 8:46	pCi/m3	-1.67E-05	U	8.73E-05	5.95E-05	2.45E-02		2.77E-03	7.04E-04
ENGWESA004	9/17/15 9:02	pCi/m3	8.37E-05	J	8.50E-05	6.70E-05	2.20E-02		2.39E-03	4.63E-04
ENGWESA005	9/16/15 13:05	pCi/m3	7.85E-05	U	2.11E-04	1.65E-04	2.41E-02		3.16E-03	1.31E-03
ENGWESA006	9/16/15 11:40	pCi/m3	1.20E-04	J	6.43E-05	5.64E-05	2.67E-02		3.07E-03	6.81E-04
ENGWESA007	9/16/15 13:20	pCi/m3	9.27E-05	J	1.02E-04	7.89E-05	2.11E-02		2.37E-03	6.36E-04
ENGWESA008	9/16/15 12:50	pCi/m3	6.86E-05	J	8.05E-05	6.39E-05	2.32E-02		2.76E-03	7.16E-04
ENGWESA009	9/17/15 9:20	pCi/m3	2.35E-05	U	1.72E-04	1.30E-04	2.10E-02		2.75E-03	1.14E-03
ENGWESA010	9/17/15 9:46	pCi/m3	8.51E-05	J	8.25E-05	6.34E-05	2.35E-02		2.72E-03	6.14E-04
ENGWESA011	9/16/15 13:36	pCi/m3	1.48E-04	J	9.35E-05	7.75E-05	2.27E-02		2.48E-03	5.29E-04
ENGWESA012	9/17/15 8:02	pCi/m3	1.31E-04	J	9.02E-05	7.39E-05	2.14E-02		2.58E-03	7.15E-04
ENGWESA013	9/17/15 8:20	pCi/m3	3.69E-05	U	7.99E-05	6.02E-05	2.23E-02		2.55E-03	9.13E-04
ENGWESA001	12/8/2015	pCi/m3	5.74E-05	U	7.92E-05	6.08E-05	1.95E-02	J+	2.24E-03	1.00E-03
ENGWESA002	12/8/2015	pCi/m3	1.03E-04	J	9.42E-05	7.41E-05	1.72E-02	J+	1.94E-03	5.00E-04
ENGWESA003	12/8/2015	pCi/m3	6.11E-05	U	7.88E-05	6.18E-05	1.88E-02	J+	2.32E-03	7.04E-04
ENGWESA004	12/8/2015	pCi/m3	1.08E-04	J	8.81E-05	7.03E-05	2.20E-02	J+	2.42E-03	5.87E-04
ENGWESA005	12/8/2015	pCi/m3	5.51E-04	U	7.24E-04	5.74E-04	2.22E-01	J+	2.65E-02	7.06E-03
ENGWESA006	12/8/2015	pCi/m3	2.18E-04	J	1.96E-04	1.63E-04	2.23E-02	J+	2.86E-03	1.14E-03
ENGWESA007	12/8/2015	pCi/m3	7.90E-05	J	7.54E-05	5.96E-05	2.08E-02	J+	2.47E-03	6.56E-04
ENGWESA008	12/8/2015	pCi/m3	7.32E-05	J	9.02E-05	6.95E-05	2.10E-02	J+	2.31E-03	5.59E-04
ENGWESA009	12/8/2015	pCi/m3	2.87E-05	U	1.73E-04	1.31E-04	2.01E-02	J+	2.78E-03	1.32E-03
ENGWESA010	12/8/2015	pCi/m3	1.11E-05	U	8.33E-05	5.97E-05	1.63E-02	J+	1.91E-03	5.34E-04
ENGWESA011	12/8/2015	pCi/m3	7.64E-05	J	9.52E-05	7.35E-05	2.30E-02	J+	2.52E-03	5.60E-04
ENGWESA012	12/8/2015	pCi/m3	3.11E-05	U	7.90E-05	5.92E-05	2.10E-02	J+	2.51E-03	6.46E-04
ENGWESA013	12/8/2015	pCi/m3	1.71E-05	U	8.29E-05	6.01E-05	2.76E-02	J+	3.17E-03	6.93E-04

Client ID	Sample Date	Report Units	Lead-214				Potassium-40			
			RESULT	FINAL Q	CSU	CV	RESULT	FINAL Q	CSU	CV
ENGWESA001	5/27/15 16:12	pCi/m^3	2.92E-05	U	1.11E-04	8.03E-05	9.26E-04	J	5.58E-04	3.10E-04
ENGWESA002	5/28/15 8:30	pCi/m^3	5.73E-05	J	6.31E-05	5.14E-05	5.69E-04	J	4.52E-04	3.82E-04
ENGWESA003	5/28/15 9:06	pCi/m^3	1.25E-04	J	8.57E-05	5.99E-05	1.31E-03		5.62E-04	4.87E-04
ENGWESA004	5/28/15 9:30	pCi/m^3	6.76E-05	U	1.05E-04	8.16E-05	3.62E-04	U	6.49E-04	5.38E-04
ENGWESA005	5/27/15 15:08	pCi/m^3	1.06E-04	J	5.95E-05	5.02E-05	4.23E-04	J	5.05E-04	4.01E-04
ENGWESA006	5/27/15 16:50	pCi/m^3	-3.19E-05	U	1.08E-04	7.92E-05	3.34E-04	U	6.29E-04	5.15E-04
ENGWESA007	5/27/15 12:00	pCi/m^3	1.68E-04	J	9.17E-05	6.53E-05	1.50E-03		5.82E-04	5.20E-04
ENGWESA008	5/27/15 15:38	pCi/m^3	1.02E-05	U	7.67E-05	5.46E-05	4.09E-04	U	6.28E-04	4.62E-04
ENGWESA009	5/28/15 10:42	pCi/m^3								
ENGWESA010	5/28/15 11:06	pCi/m^3	3.27E-05	U	1.03E-04	7.87E-05	4.07E-04	U	6.17E-04	5.99E-04
ENGWESA011	5/27/15 9:10	pCi/m^3	9.75E-05	J	8.84E-05	6.00E-05	1.63E-03		6.19E-04	5.38E-04
ENGWESA012	5/27/15 10:36	pCi/m^3	3.25E-06	U	8.12E-05	5.78E-05	8.61E-04	J	6.66E-04	4.76E-04
ENGWESA013	5/27/15 11:17	pCi/m^3	1.22E-04	U	1.63E-04	1.33E-04	5.26E-04	U	1.34E-03	9.61E-04
ENGWESA001	6/24/15 12:15	pCi/m^3	1.19E-04	U	1.10E-04	8.76E-05	7.48E-04	J	5.84E-04	4.88E-04
ENGWESA002	6/24/15 9:40	pCi/m^3	1.12E-04	J	8.37E-05	5.82E-05	9.78E-04	J	5.12E-04	4.46E-04
ENGWESA003	6/24/15 10:40	pCi/m^3	3.23E-05	U	8.19E-05	5.96E-05	7.54E-04	J	4.99E-04	4.33E-04
ENGWESA004	6/24/15 11:40	pCi/m^3	8.59E-05	J	8.65E-05	5.86E-05	1.03E-03		5.09E-04	4.45E-04
ENGWESA005	6/23/15 10:30	pCi/m^3	3.64E-05	U	7.88E-05	5.76E-05	7.88E-04	J	5.19E-04	4.49E-04
ENGWESA006	6/24/15 13:00	pCi/m^3	8.47E-05	J	9.40E-05	7.42E-05	-6.94E-05	U	6.49E-04	4.72E-04
ENGWESA007	6/23/15 9:38	pCi/m^3	3.86E-05	U	6.24E-05	5.03E-05	5.59E-04	J	4.99E-04	4.10E-04
ENGWESA008	6/23/15 11:25	pCi/m^3	5.95E-05	J	8.84E-05	5.89E-05	7.61E-04	J	5.67E-04	4.65E-04
ENGWESA009	6/23/15 13:26	pCi/m^3	4.63E-05	U	1.04E-04	7.50E-05	6.84E-04	J	7.26E-04	5.69E-04
ENGWESA010	6/23/15 14:10	pCi/m^3	6.64E-05	J	5.90E-05	4.92E-05	5.16E-04	J	4.49E-04	3.69E-04
ENGWESA011	6/23/15 8:59	pCi/m^3	7.02E-05	J	8.57E-05	5.74E-05	1.36E-03		5.55E-04	4.89E-04
ENGWESA012	6/23/15 14:50	pCi/m^3	9.01E-05	J	7.85E-05	6.50E-05	1.12E-03	J	6.39E-04	5.53E-04
ENGWESA013	6/23/15 15:30	pCi/m^3	1.17E-04	J	8.26E-05	5.76E-05	1.05E-03		4.31E-04	4.02E-04

Client ID	Sample Date	Report Units	Lead-214				Potassium-40			
			RESULT	FINAL Q	CSU	CV	RESULT	FINAL Q	CSU	CV
ENGWESA001	9/16/15 11:17	pCi/m3	8.14E-05	J	9.83E-05	7.46E-05	8.05E-04	J	4.93E-04	2.38E-04
ENGWESA003	9/17/15 8:46	pCi/m3	1.12E-05	U	6.45E-05	5.12E-05	4.33E-04	J	5.07E-04	3.66E-04
ENGWESA004	9/17/15 9:02	pCi/m3	-1.32E-05	U	9.98E-05	6.02E-05	7.32E-04	J	5.10E-04	3.14E-04
ENGWESA005	9/16/15 13:05	pCi/m3	1.12E-04	U	1.99E-04	1.55E-04	1.14E-03	J	1.23E-03	1.10E-03
ENGWESA006	9/16/15 11:40	pCi/m3	7.62E-05	J	6.50E-05	5.53E-05	6.75E-04	J	6.73E-04	4.93E-04
ENGWESA007	9/16/15 13:20	pCi/m3	1.62E-04	J	9.30E-05	6.91E-05	1.01E-03	J	5.74E-04	5.36E-04
ENGWESA008	9/16/15 12:50	pCi/m3	4.52E-05	U	8.80E-05	6.57E-05	6.55E-04	J	3.58E-04	0.00E+00
ENGWESA009	9/17/15 9:20	pCi/m3	2.65E-05	U	1.62E-04	1.24E-04	9.71E-04	J	1.00E-03	8.95E-04
ENGWESA010	9/17/15 9:46	pCi/m3	5.80E-05	J	6.68E-05	5.50E-05	1.87E-04	U	5.35E-04	4.04E-04
ENGWESA011	9/16/15 13:36	pCi/m3	9.31E-05	J	1.06E-04	7.09E-05	1.28E-03		5.98E-04	2.73E-04
ENGWESA012	9/17/15 8:02	pCi/m3	4.76E-05	U	8.91E-05	6.63E-05	7.55E-04	J	6.24E-04	5.41E-04
ENGWESA013	9/17/15 8:20	pCi/m3	9.00E-05	J	6.67E-05	5.65E-05	5.50E-04	J	5.52E-04	4.68E-04
ENGWESA001	12/8/2015	pCi/m3	7.05E-05	J+	6.88E-05	5.72E-05	8.03E-05	U	3.78E-04	2.97E-04
ENGWESA002	12/8/2015	pCi/m3	5.61E-05	U	9.93E-05	6.57E-05	8.72E-04	J	5.44E-04	4.89E-04
ENGWESA003	12/8/2015	pCi/m3	1.23E-04	J+	9.58E-05	7.49E-05	1.72E-04	U	4.52E-04	3.42E-04
ENGWESA004	12/8/2015	pCi/m3	-2.60E-05	U	1.05E-04	6.24E-05	1.11E-03	J	5.96E-04	5.41E-04
ENGWESA005	12/8/2015	pCi/m3	4.46E-04	U	9.00E-04	6.68E-04	-3.06E-03	U	3.96E-03	4.43E-03
ENGWESA006	12/8/2015	pCi/m3	1.10E-04	U	1.90E-04	1.48E-04	3.74E-04	U	1.05E-03	8.52E-04
ENGWESA007	12/8/2015	pCi/m3	4.89E-05	U	7.08E-05	5.76E-05	6.38E-04	J	5.54E-04	4.69E-04
ENGWESA008	12/8/2015	pCi/m3	5.68E-05	U	1.09E-04	7.19E-05	1.01E-03		4.70E-04	4.66E-04
ENGWESA009	12/8/2015	pCi/m3	1.35E-04	U	1.83E-04	1.44E-04	5.78E-04	U	1.08E-03	8.76E-04
ENGWESA010	12/8/2015	pCi/m3	8.03E-05	J+	6.71E-05	5.64E-05	3.49E-04	J	4.45E-04	3.22E-04
ENGWESA011	12/8/2015	pCi/m3	1.03E-04	J+	1.11E-04	7.45E-05	1.01E-03	J	5.28E-04	5.06E-04
ENGWESA012	12/8/2015	pCi/m3	6.72E-05	U	9.35E-05	7.02E-05	1.97E-04	U	6.43E-04	4.60E-04
ENGWESA013	12/8/2015	pCi/m3	1.90E-05	U	7.20E-05	5.76E-05	4.24E-04	J	4.90E-04	3.96E-04

Client ID	Sample Date	Report Units	Protactinium-231				Thorium-230			
			RESULT	FINAL Q	CSU	CV	RESULT	FINAL Q	CSU	CV
ENGWESA001	5/27/15 16:12	pCi/m^3	6.31E-05	U	1.78E-03	1.27E-03	2.36E-05	J	1.08E-05	5.78E-06
ENGWESA002	5/28/15 8:30	pCi/m^3	9.50E-04	J	1.08E-03	8.63E-04	2.76E-05	J	1.38E-05	8.53E-06
ENGWESA003	5/28/15 9:06	pCi/m^3	-2.36E-04	U	1.44E-03	8.92E-04	2.76E-05	J	1.02E-05	4.02E-06
ENGWESA004	5/28/15 9:30	pCi/m^3	2.49E-04	U	1.46E-03	1.32E-03	3.14E-05	J	1.11E-05	3.78E-06
ENGWESA005	5/27/15 15:08	pCi/m^3	-8.81E-04	U	1.02E-03	7.56E-04	2.93E-05	J	1.06E-05	4.05E-06
ENGWESA006	5/27/15 16:50	pCi/m^3	2.05E-04	U	1.77E-03	1.33E-03	3.08E-05	J	1.12E-05	4.12E-06
ENGWESA007	5/27/15 12:00	pCi/m^3	-4.21E-04	U	1.51E-03	9.26E-04	5.81E-05	J	1.78E-05	4.38E-06
ENGWESA008	5/27/15 15:38	pCi/m^3	7.96E-04	U	1.41E-03	1.03E-03	3.17E-05	J	1.12E-05	4.08E-06
ENGWESA009	5/28/15 10:42	pCi/m^3								
ENGWESA010	5/28/15 11:06	pCi/m^3	2.80E-03	J	1.64E-03	1.32E-03	4.14E-05	J	1.45E-05	4.58E-06
ENGWESA011	5/27/15 9:10	pCi/m^3	8.74E-05	U	1.46E-03	9.25E-04	3.65E-05	J	1.27E-05	4.40E-06
ENGWESA012	5/27/15 10:36	pCi/m^3	9.05E-04	J	1.08E-03	8.65E-04	3.51E-05	J	1.21E-05	4.09E-06
ENGWESA013	5/27/15 11:17	pCi/m^3	2.16E-04	U	2.81E-03	2.20E-03	4.39E-05	J	1.62E-05	5.80E-06
ENGWESA001	6/24/15 12:15	pCi/m^3	7.07E-04	U	1.26E-03	1.01E-03	1.75E-05	J	9.15E-06	5.84E-06
ENGWESA002	6/24/15 9:40	pCi/m^3	-2.38E-04	U	1.24E-03	9.13E-04	8.08E-06	U	6.85E-06	7.73E-06
ENGWESA003	6/24/15 10:40	pCi/m^3	-4.68E-04	U	1.53E-03	1.06E-03	1.90E-05		8.79E-06	5.45E-06
ENGWESA004	6/24/15 11:40	pCi/m^3	-3.29E-04	U	1.49E-03	9.23E-04	3.87E-05		1.24E-05	3.67E-06
ENGWESA005	6/23/15 10:30	pCi/m^3	8.39E-04	U	1.38E-03	1.01E-03	3.39E-05		1.29E-05	5.39E-06
ENGWESA006	6/24/15 13:00	pCi/m^3	8.85E-04	U	1.45E-03	1.12E-03	1.05E-05	J	5.68E-06	3.88E-06
ENGWESA007	6/23/15 9:38	pCi/m^3	-4.38E-04	U	1.10E-03	8.34E-04	2.93E-05		1.12E-05	5.10E-06
ENGWESA008	6/23/15 11:25	pCi/m^3	-9.23E-04	U	1.58E-03	9.44E-04	1.93E-05		8.73E-06	4.84E-06
ENGWESA009	6/23/15 13:26	pCi/m^3	6.21E-04	U	1.74E-03	1.26E-03	3.05E-05		1.28E-05	6.36E-06
ENGWESA010	6/23/15 14:10	pCi/m^3	8.74E-04	U	1.11E-03	8.89E-04	2.66E-05		1.07E-05	6.01E-06
ENGWESA011	6/23/15 8:59	pCi/m^3	1.26E-03	J	1.45E-03	9.70E-04	2.23E-05		1.03E-05	5.81E-06
ENGWESA012	6/23/15 14:50	pCi/m^3	7.07E-04	U	1.36E-03	1.09E-03	4.96E-05		1.90E-05	7.64E-06
ENGWESA013	6/23/15 15:30	pCi/m^3	-7.66E-04	U	1.49E-03	8.92E-04	1.78E-05		8.47E-06	5.80E-06

Client ID	Sample Date	Report Units	Protactinium-231				Thorium-230			
			RESULT	FINAL Q	CSU	CV	RESULT	FINAL Q	CSU	CV
ENGWESA001	9/16/15 11:17	pCi/m3	1.24E-03	U	1.69E-03	1.26E-03	3.45E-05	J+	1.52E-05	7.10E-06
ENGWESA003	9/17/15 8:46	pCi/m3	-2.80E-04	U	1.19E-03	9.16E-04	7.03E-05	J+	2.12E-05	4.00E-06
ENGWESA004	9/17/15 9:02	pCi/m3	-2.07E-04	U	1.52E-03	9.49E-04	4.82E-05	J+	1.46E-05	3.20E-06
ENGWESA005	9/16/15 13:05	pCi/m3	6.49E-04	U	3.16E-03	2.39E-03	2.85E-05	J+	9.94E-06	3.83E-06
ENGWESA006	9/16/15 11:40	pCi/m3	-9.83E-06	U	1.21E-03	9.42E-04	8.06E-05	J+	2.19E-05	3.58E-06
ENGWESA007	9/16/15 13:20	pCi/m3	-8.43E-04	U	1.72E-03	1.02E-03	3.67E-05	J+	1.11E-05	3.22E-06
ENGWESA008	9/16/15 12:50	pCi/m3	1.30E-03	J	1.53E-03	1.14E-03	5.87E-05	J+	1.61E-05	3.48E-06
ENGWESA009	9/17/15 9:20	pCi/m3	-1.52E-03	U	3.00E-03	2.16E-03	2.34E-05	J+	1.12E-05	6.76E-06
ENGWESA010	9/17/15 9:46	pCi/m3	3.91E-04	U	1.13E-03	9.07E-04	7.20E-05	J+	1.89E-05	3.15E-06
ENGWESA011	9/16/15 13:36	pCi/m3	-2.79E-04	U	1.63E-03	9.74E-04	7.63E-05	J+	2.03E-05	5.12E-06
ENGWESA012	9/17/15 8:02	pCi/m3	-2.16E-03	U	1.67E-03	1.05E-03	8.64E-05	J+	2.13E-05	2.70E-06
ENGWESA013	9/17/15 8:20	pCi/m3	3.14E-04	U	1.19E-03	9.46E-04	2.21E-05	J+	7.82E-06	2.48E-06
ENGWESA001	12/8/2015	pCi/m3	-1.54E-04	U	1.34E-03	1.04E-03	6.58E-05	J+	2.22E-05	6.35E-06
ENGWESA002	12/8/2015	pCi/m3	1.08E-03	U	1.78E-03	1.18E-03	5.18E-05	J+	1.53E-05	2.93E-06
ENGWESA003	12/8/2015	pCi/m3	5.66E-04	U	1.95E-03	1.40E-03	5.99E-05	J+	1.74E-05	3.37E-06
ENGWESA004	12/8/2015	pCi/m3	-1.02E-03	U	2.02E-03	1.21E-03	4.94E-05	J+	1.53E-05	5.81E-06
ENGWESA005	12/8/2015	pCi/m3	-1.08E-02	U	1.99E-02	1.34E-02	7.02E-05	J+	2.38E-05	6.28E-06
ENGWESA006	12/8/2015	pCi/m3	3.87E-03	J+	3.91E-03	3.02E-03	6.02E-05	J+	1.73E-05	3.54E-06
ENGWESA007	12/8/2015	pCi/m3	1.69E-03	J+	1.46E-03	1.18E-03	7.22E-05	J+	2.01E-05	3.49E-06
ENGWESA008	12/8/2015	pCi/m3	3.69E-04	U	1.95E-03	1.24E-03	5.79E-05	J+	1.68E-05	3.37E-06
ENGWESA009	12/8/2015	pCi/m3	1.27E-03	U	3.26E-03	2.49E-03	4.84E-05	J+	1.47E-05	3.06E-06
ENGWESA010	12/8/2015	pCi/m3	2.51E-04	U	1.27E-03	1.01E-03	6.25E-05	J+	1.79E-05	3.68E-06
ENGWESA011	12/8/2015	pCi/m3	5.36E-04	U	9.93E-04	1.27E-03	8.19E-05	J+	2.22E-05	3.63E-06
ENGWESA012	12/8/2015	pCi/m3	-3.81E-04	U	2.04E-03	1.43E-03	8.03E-05	J+	2.17E-05	3.07E-06
ENGWESA013	12/8/2015	pCi/m3	2.09E-04	U	1.58E-03	1.24E-03	4.03E-05	J+	1.31E-05	3.39E-06

Client ID	Sample Date	Report Units	Thorium-232				Uranium-234			
			RESULT	FINAL Q	CSU	CV	RESULT	FINAL Q	CSU	CV
ENGWESA001	5/27/15 16:12	pCi/m^3	2.75E-06	J	3.58E-06	4.28E-07	3.94E-05		1.39E-05	3.25E-07
ENGWESA002	5/28/15 8:30	pCi/m^3	1.18E-05	J	8.92E-06	1.11E-07	3.13E-05		1.06E-05	3.67E-07
ENGWESA003	5/28/15 9:06	pCi/m^3	8.91E-06	J	5.16E-06	1.71E-07	3.59E-05	J	1.62E-05	1.35E-06
ENGWESA004	5/28/15 9:30	pCi/m^3	1.45E-05	J	6.76E-06	1.71E-07	4.40E-05	J	1.91E-05	1.70E-06
ENGWESA005	5/27/15 15:08	pCi/m^3	1.16E-05	J	6.05E-06	4.11E-07	4.99E-05	J	1.52E-05	4.42E-07
ENGWESA006	5/27/15 16:50	pCi/m^3	1.66E-05	J	7.53E-06	4.30E-07	2.81E-05	J	1.09E-05	7.48E-07
ENGWESA007	5/27/15 12:00	pCi/m^3	1.68E-05	J	7.84E-06	1.97E-07	4.69E-05	J	1.51E-05	6.39E-07
ENGWESA008	5/27/15 15:38	pCi/m^3	8.38E-06	J	5.03E-06	1.73E-07	2.66E-05	J	1.10E-05	8.11E-07
ENGWESA009	5/28/15 10:42	pCi/m^3								
ENGWESA010	5/28/15 11:06	pCi/m^3	1.50E-05	J	7.56E-06	2.07E-07	5.33E-05		1.53E-05	6.98E-07
ENGWESA011	5/27/15 9:10	pCi/m^3	1.64E-05	J	7.63E-06	4.46E-07	2.78E-05	J	1.06E-05	1.15E-06
ENGWESA012	5/27/15 10:36	pCi/m^3	1.13E-05	J	6.10E-06	4.28E-07	3.71E-05		1.31E-05	2.98E-07
ENGWESA013	5/27/15 11:17	pCi/m^3	1.80E-05	J	9.22E-06	2.62E-07	1.81E-05	J	1.32E-05	2.71E-06
ENGWESA001	6/24/15 12:15	pCi/m^3	7.10E-06	J	5.56E-06	2.56E-07	3.60E-05		1.45E-05	3.61E-06
ENGWESA002	6/24/15 9:40	pCi/m^3	6.78E-07	U	2.83E-06	8.08E-07	3.10E-05		1.18E-05	7.95E-07
ENGWESA003	6/24/15 10:40	pCi/m^3	2.35E-06	U	4.03E-06	2.51E-06	3.73E-05	J	1.97E-05	2.94E-07
ENGWESA004	6/24/15 11:40	pCi/m^3	1.68E-05		7.19E-06	2.72E-07	2.96E-05		1.10E-05	1.14E-07
ENGWESA005	6/23/15 10:30	pCi/m^3	1.06E-05	J	6.59E-06	9.65E-07	2.34E-05		9.71E-06	8.76E-07
ENGWESA006	6/24/15 13:00	pCi/m^3	5.82E-06	J	4.10E-06	2.79E-07	3.03E-05		1.06E-05	2.44E-07
ENGWESA007	6/23/15 9:38	pCi/m^3	1.08E-05	J	6.57E-06	1.94E-06	4.42E-05		1.46E-05	6.45E-07
ENGWESA008	6/23/15 11:25	pCi/m^3	4.32E-06	J	4.58E-06	2.08E-06	3.64E-05		1.32E-05	3.09E-07
ENGWESA009	6/23/15 13:26	pCi/m^3	6.92E-06	J	5.56E-06	4.32E-07	4.64E-05		1.63E-05	1.40E-06
ENGWESA010	6/23/15 14:10	pCi/m^3	7.44E-06	J	5.34E-06	1.26E-06	3.55E-05		1.41E-05	5.78E-07
ENGWESA011	6/23/15 8:59	pCi/m^3	6.18E-06	J	5.11E-06	5.56E-07	2.52E-05		1.00E-05	2.69E-07
ENGWESA012	6/23/15 14:50	pCi/m^3	2.12E-05	J	1.12E-05	7.52E-07	5.48E-05		1.78E-05	5.71E-07
ENGWESA013	6/23/15 15:30	pCi/m^3	3.21E-06	J	3.49E-06	7.18E-07	2.58E-05		1.04E-05	1.17E-07

Client ID	Sample Date	Report Units	Thorium-232				Uranium-234			
			RESULT	FINAL Q	CSU	CV	RESULT	FINAL Q	CSU	CV
ENGWESA001	9/16/15 11:17	pCi/m3	1.55E-05	J+	9.37E-06	3.46E-07	4.02E-05	j	1.61E-05	3.01E-06
ENGWESA003	9/17/15 8:46	pCi/m3	1.79E-05	J+	8.19E-06	2.08E-07	2.98E-05		9.33E-06	1.38E-06
ENGWESA004	9/17/15 9:02	pCi/m3	1.22E-05	J+	5.91E-06	5.74E-07	2.42E-05		8.56E-06	1.13E-06
ENGWESA005	9/16/15 13:05	pCi/m3	1.25E-05	J+	5.91E-06	8.40E-07	2.92E-05		9.79E-06	1.46E-06
ENGWESA006	9/16/15 11:40	pCi/m3	2.74E-05	J+	9.77E-06	6.07E-08	2.77E-05		9.56E-06	3.88E-06
ENGWESA007	9/16/15 13:20	pCi/m3	9.39E-06	J+	4.68E-06	3.97E-07	3.48E-05		1.14E-05	1.62E-06
ENGWESA008	9/16/15 12:50	pCi/m3	2.23E-05	J+	7.94E-06	4.18E-07	1.92E-05		7.99E-06	2.24E-06
ENGWESA009	9/17/15 9:20	pCi/m3	1.32E-05	J+	8.11E-06	1.52E-06	2.11E-05	J	9.50E-06	2.39E-06
ENGWESA010	9/17/15 9:46	pCi/m3	2.64E-05	J+	8.85E-06	3.29E-07	4.68E-05		1.39E-05	1.54E-06
ENGWESA011	9/16/15 13:36	pCi/m3	3.07E-05	J+	1.01E-05	6.59E-07	2.55E-05		8.67E-06	1.34E-06
ENGWESA012	9/17/15 8:02	pCi/m3	1.79E-05	J+	6.78E-06	4.87E-08	1.77E-05		7.38E-06	1.88E-06
ENGWESA013	9/17/15 8:20	pCi/m3	6.96E-06	J+	3.89E-06	1.34E-07	3.29E-05		1.05E-05	1.68E-06
ENGWESA001	12/8/2015	pCi/m3	2.05E-05	J+	1.07E-05	1.15E-07	2.33E-05	J+	1.08E-05	2.46E-06
ENGWESA002	12/8/2015	pCi/m3	1.22E-05	J+	5.83E-06	3.59E-07	1.84E-05	J+	6.39E-06	1.11E-06
ENGWESA003	12/8/2015	pCi/m3	1.77E-05	J+	7.42E-06	2.78E-07	2.42E-05	J+	8.14E-06	1.24E-06
ENGWESA004	12/8/2015	pCi/m3	1.67E-05	J+	7.56E-06	2.60E-06	2.53E-05	J+	8.30E-06	1.31E-06
ENGWESA005	12/8/2015	pCi/m3	2.51E-05	J+	1.22E-05	5.55E-07	2.93E-05	J+	1.13E-05	1.69E-06
ENGWESA006	12/8/2015	pCi/m3	1.34E-05	J+	6.58E-06	1.93E-06	2.37E-05	J+	7.95E-06	1.21E-06
ENGWESA007	12/8/2015	pCi/m3	2.01E-05	J+	8.08E-06	4.97E-07	2.03E-05	J+	7.93E-06	3.70E-06
ENGWESA008	12/8/2015	pCi/m3	2.01E-05	J+	7.94E-06	3.74E-07	3.20E-05	J+	9.29E-06	1.15E-06
ENGWESA009	12/8/2015	pCi/m3	1.49E-05	J+	6.52E-06	1.59E-07	2.89E-05	J+	8.59E-06	1.61E-06
ENGWESA010	12/8/2015	pCi/m3	1.45E-05	J+	6.81E-06	1.64E-06	2.61E-05	J+	8.33E-06	1.36E-06
ENGWESA011	12/8/2015	pCi/m3	2.81E-05	J+	1.01E-05	1.16E-06	3.26E-05	J+	1.01E-05	1.25E-06
ENGWESA012	12/8/2015	pCi/m3	2.32E-05	J+	8.72E-06	4.84E-07	2.82E-05	J+	9.81E-06	1.52E-06
ENGWESA013	12/8/2015	pCi/m3	1.39E-05	J+	6.63E-06	9.35E-07	3.07E-05	J+	9.83E-06	1.80E-06

Client ID	Sample Date	Report Units	Uranium-235				Uranium-238			
			RESULT	FINAL Q	CSU	CV	RESULT	FINAL Q	CSU	CV
ENGWESA001	5/27/15 16:12	pCi/m^3	5.20E-06	J	5.38E-06	2.56E-07	3.36E-05		1.27E-05	4.47E-07
ENGWESA002	5/28/15 8:30	pCi/m^3	1.95E-06	J	3.31E-06	4.98E-08	3.43E-05		1.12E-05	3.20E-07
ENGWESA003	5/28/15 9:06	pCi/m^3	7.24E-06	J	8.28E-06	9.63E-07	5.08E-05	J	1.99E-05	2.97E-06
ENGWESA004	5/28/15 9:30	pCi/m^3	1.79E-06	J	4.30E-06	4.06E-07	3.65E-05	J	1.73E-05	1.89E-06
ENGWESA005	5/27/15 15:08	pCi/m^3	7.72E-07	J	2.36E-06	3.82E-07	4.28E-05	J	1.39E-05	7.07E-07
ENGWESA006	5/27/15 16:50	pCi/m^3	-5.84E-07	UJ	2.34E-06	5.31E-07	2.54E-05	J	1.02E-05	5.35E-07
ENGWESA007	5/27/15 12:00	pCi/m^3	3.73E-06	J	4.91E-06	6.36E-08	4.32E-05	J	1.44E-05	1.09E-06
ENGWESA008	5/27/15 15:38	pCi/m^3	7.87E-06	J	6.61E-06	7.48E-07	4.61E-05	J	1.49E-05	2.39E-07
ENGWESA009	5/28/15 10:42	pCi/m^3								
ENGWESA010	5/28/15 11:06	pCi/m^3	4.63E-06	J	4.80E-06	6.44E-07	3.82E-05		1.25E-05	7.94E-07
ENGWESA011	5/27/15 9:10	pCi/m^3	1.97E-06	J	3.02E-06	2.03E-07	2.51E-05	J	9.81E-06	2.06E-07
ENGWESA012	5/27/15 10:36	pCi/m^3	2.06E-06	J	3.50E-06	4.06E-07	2.69E-05		1.09E-05	2.39E-07
ENGWESA013	5/27/15 11:17	pCi/m^3	2.11E-06	J	5.06E-06	4.81E-07	1.95E-05	J	1.31E-05	1.19E-06
ENGWESA001	6/24/15 12:15	pCi/m^3	1.95E-06	J	4.21E-06	8.89E-07	3.13E-05		1.29E-05	8.94E-07
ENGWESA002	6/24/15 9:40	pCi/m^3	1.01E-06	J	2.43E-06	2.30E-07	3.05E-05		1.17E-05	6.63E-08
ENGWESA003	6/24/15 10:40	pCi/m^3	2.39E-06	U	5.74E-06	5.42E-07	3.45E-05	J	1.84E-05	5.51E-07
ENGWESA004	6/24/15 11:40	pCi/m^3	6.64E-06	J	5.81E-06	5.68E-08	3.47E-05		1.19E-05	2.13E-07
ENGWESA005	6/23/15 10:30	pCi/m^3	2.94E-06	J	3.81E-06	3.62E-07	1.38E-05	J	7.27E-06	5.18E-07
ENGWESA006	6/24/15 13:00	pCi/m^3	3.20E-06	J	4.07E-06	7.51E-07	3.19E-05		1.11E-05	8.94E-07
ENGWESA007	6/23/15 9:38	pCi/m^3	9.82E-06	J	7.10E-06	2.36E-07	2.94E-05		1.16E-05	6.82E-08
ENGWESA008	6/23/15 11:25	pCi/m^3	3.87E-06	J	5.08E-06	6.61E-08	3.39E-05		1.29E-05	1.49E-06
ENGWESA009	6/23/15 13:26	pCi/m^3	7.54E-06	J	7.31E-06	7.71E-08	3.32E-05		1.34E-05	9.10E-07
ENGWESA010	6/23/15 14:10	pCi/m^3	3.05E-06	J	5.20E-06	7.84E-08	3.16E-05		1.32E-05	5.04E-07
ENGWESA011	6/23/15 8:59	pCi/m^3	3.16E-06	J	3.84E-06	2.12E-07	2.39E-05		9.78E-06	5.24E-07
ENGWESA012	6/23/15 14:50	pCi/m^3	1.36E-05	J	9.57E-06	7.75E-08	4.13E-05		1.53E-05	1.54E-06
ENGWESA013	6/23/15 15:30	pCi/m^3	6.83E-06	J	5.98E-06	5.83E-08	3.49E-05		1.23E-05	6.19E-08

Client ID	Sample Date	Report Units	Uranium-235				Uranium-238			
			RESULT	FINAL Q	CSU	CV	RESULT	FINAL Q	CSU	CV
ENGWESA001	9/16/15 11:17	pCi/m3	1.26E-05	J	1.01E-05	2.18E-07	2.58E-05	J+	1.26E-05	7.44E-07
ENGWESA003	9/17/15 8:46	pCi/m3	3.53E-06	J	3.37E-06	3.01E-07	2.99E-05	J+	9.29E-06	3.16E-07
ENGWESA004	9/17/15 9:02	pCi/m3	8.86E-06	J	5.60E-06	9.78E-08	2.73E-05	J+	9.16E-06	2.24E-07
ENGWESA005	9/16/15 13:05	pCi/m3	5.71E-07	J	1.75E-06	3.43E-07	3.81E-05	J+	1.14E-05	5.98E-07
ENGWESA006	9/16/15 11:40	pCi/m3	1.82E-06	U	3.67E-06	1.86E-06	2.09E-05	J+	8.28E-06	3.19E-06
ENGWESA007	9/16/15 13:20	pCi/m3	5.77E-06	J	5.06E-06	1.17E-07	2.92E-05	J+	1.03E-05	5.32E-07
ENGWESA008	9/16/15 12:50	pCi/m3	3.41E-06	J	3.54E-06	2.31E-07	2.42E-05	J+	9.29E-06	2.70E-06
ENGWESA009	9/17/15 9:20	pCi/m3	5.47E-06	J	5.44E-06	6.51E-07	3.57E-05	J+	1.26E-05	1.01E-06
ENGWESA010	9/17/15 9:46	pCi/m3	6.31E-06	J	5.30E-06	6.71E-07	4.34E-05	J+	1.32E-05	4.16E-07
ENGWESA011	9/16/15 13:36	pCi/m3	4.76E-06	J	4.16E-06	9.68E-08	3.96E-05	J+	1.12E-05	3.31E-07
ENGWESA012	9/17/15 8:02	pCi/m3	3.92E-06	J	3.74E-06	3.34E-07	2.23E-05	J+	8.36E-06	1.04E-06
ENGWESA013	9/17/15 8:20	pCi/m3	4.42E-06	J	4.21E-06	6.93E-07	2.67E-05	J+	9.37E-06	1.30E-06
ENGWESA001	12/8/2015	pCi/m3	8.26E-06	J	7.13E-06	5.80E-07	2.45E-05	J+	1.11E-05	6.08E-07
ENGWESA002	12/8/2015	pCi/m3	3.43E-06	J	2.96E-06	2.41E-07	1.84E-05	J+	6.37E-06	3.36E-07
ENGWESA003	12/8/2015	pCi/m3	5.88E-06	J	4.39E-06	8.93E-08	3.02E-05	J+	9.21E-06	3.05E-07
ENGWESA004	12/8/2015	pCi/m3	4.07E-06	J	3.51E-06	2.85E-07	2.43E-05	J+	8.05E-06	2.99E-07
ENGWESA005	12/8/2015	pCi/m3	8.42E-06	J	6.76E-06	1.46E-07	2.33E-05	J+	9.97E-06	3.35E-07
ENGWESA006	12/8/2015	pCi/m3	5.50E-06	J	4.06E-06	2.85E-07	2.29E-05	J+	7.80E-06	4.96E-07
ENGWESA007	12/8/2015	pCi/m3	-5.50E-07	U	2.35E-06	1.77E-06	2.12E-05	J+	8.13E-06	3.05E-06
ENGWESA008	12/8/2015	pCi/m3	2.05E-06	J	2.70E-06	8.32E-08	2.30E-05	J+	7.64E-06	3.78E-07
ENGWESA009	12/8/2015	pCi/m3	2.46E-06	J	2.54E-06	1.66E-07	2.36E-05	J+	7.78E-06	1.94E-06
ENGWESA010	12/8/2015	pCi/m3	7.29E-06	J	4.64E-06	3.71E-07	2.60E-05	J+	8.29E-06	5.76E-07
ENGWESA011	12/8/2015	pCi/m3	3.48E-06	J	3.60E-06	5.42E-07	3.31E-05	J+	1.01E-05	3.36E-07
ENGWESA012	12/8/2015	pCi/m3	7.21E-06	J	5.40E-06	1.10E-07	2.53E-05	J+	9.18E-06	3.76E-07
ENGWESA013	12/8/2015	pCi/m3	6.18E-06	J	4.57E-06	3.20E-07	2.72E-05	J+	9.17E-06	1.00E-06

APPENDIX C

COMPARISON OF ISOTOPIC RESULTS TO NRC EFFLUENT LIMITS

Comparison of Isotopic Results to NRC Appendix B Effluent Limits										
Client ID	Analyte	Sample Date	uCi/ml	Sample Date	uCi/ml	Sample Date	uCi/ml	Sample Date	uCi/ml	NRC Eff Limit
ENGWESA001	AC-227	5/27/2015	1.46E-17	6/24/2015	-5.48E-19	9/16/2015	3.39E-18	12/8/2015	-2.75E-18	1.00E-15
ENGWESA002	AC-227	5/28/2015	7.11E-18	6/24/2015	6.41E-18			12/8/2015	-2.09E-19	1.00E-15
ENGWESA003	AC-227	5/28/2015	6.45E-18	6/24/2015	8.10E-19	9/17/2015	3.51E-18	12/8/2015	1.639E-18	1.00E-15
ENGWESA004	AC-227	5/28/2015	6.49E-18	6/24/2015	1.69E-18	9/17/2015	1.24E-18	12/8/2015	-7.87E-19	1.00E-15
ENGWESA005	AC-227	5/27/2015	6.78E-18	6/23/2015	5.00E-18	9/16/2015	5.90E-18	12/8/2015	2.382E-18	1.00E-15
ENGWESA006	AC-227	5/27/2015	1.04E-17	6/24/2015	3.69E-18	9/16/2015	2.75E-18	12/8/2015	1.048E-18	1.00E-15
ENGWESA007	AC-227	5/27/2015	8.20E-18	6/23/2015	5.00E-18	9/16/2015	1.68E-18	12/8/2015	-3.37E-19	1.00E-15
ENGWESA008	AC-227	5/27/2015	3.42E-18	6/23/2015	3.80E-18	9/16/2015	2.04E-18	12/8/2015	2.04E-19	1.00E-15
ENGWESA009	AC-227	5/28/2015		6/23/2015	3.04E-18	9/17/2015	2.87E-18	12/8/2015	1.642E-18	1.00E-15
ENGWESA010	AC-227	5/28/2015	8.73E-18	6/23/2015	3.90E-18	9/17/2015	4.88E-18	12/8/2015	1.467E-18	1.00E-15
ENGWESA011	AC-227	5/27/2015	6.58E-18	6/23/2015	1.63E-18	9/16/2015	2.93E-18	12/8/2015	5.543E-19	1.00E-15
ENGWESA012	AC-227	5/27/2015	1.24E-18	6/23/2015	1.99E-19	9/17/2015	7.92E-19	12/8/2015	1.173E-18	1.00E-15
ENGWESA013	AC-227	5/27/2015	4.24E-18	6/23/2015	-3.26E-18	9/17/2015	1.67E-19	12/8/2015	9.887E-19	1.00E-15
ENGWESA001	AC-228	5/27/2015	1.70E-16	6/24/2015	1.91E-17	9/16/2015	1.07E-16	12/8/2015	3.76E-18	2.00E-11
ENGWESA002	AC-228	5/28/2015	1.66E-16	6/24/2015	7.75E-17			12/8/2015	8.388E-18	2.00E-11
ENGWESA003	AC-228	5/28/2015	2.14E-16	6/24/2015	1.15E-16	9/17/2015	1.92E-16	12/8/2015	7.372E-17	2.00E-11
ENGWESA004	AC-228	5/28/2015	1.16E-16	6/24/2015	1.78E-16	9/17/2015	1.54E-16	12/8/2015	1.002E-17	2.00E-11
ENGWESA005	AC-228	5/27/2015	-5.33E-18	6/23/2015	1.26E-16	9/16/2015	-2.92E-17	12/8/2015	3.618E-17	2.00E-11
ENGWESA006	AC-228	5/27/2015	-2.39E-16	6/24/2015	6.61E-17	9/16/2015	2.30E-16	12/8/2015	-4.35E-16	2.00E-11
ENGWESA007	AC-228	5/27/2015	1.78E-16	6/23/2015	1.81E-16	9/16/2015	1.77E-16	12/8/2015	2.478E-17	2.00E-11
ENGWESA008	AC-228	5/27/2015	1.63E-16	6/23/2015	4.46E-17	9/16/2015	-1.01E-17	12/8/2015	2.173E-16	2.00E-11
ENGWESA009	AC-228	5/28/2015		6/23/2015	-8.45E-18	9/17/2015	4.02E-18	12/8/2015	3.486E-17	2.00E-11
ENGWESA010	AC-228	5/28/2015	1.14E-16	6/23/2015	4.61E-17	9/17/2015	1.29E-16	12/8/2015	5.538E-17	2.00E-11
ENGWESA011	AC-228	5/27/2015	2.31E-16	6/23/2015	1.38E-16	9/16/2015	1.41E-16	12/8/2015	-2.55E-17	2.00E-11
ENGWESA012	AC-228	5/27/2015	-1.02E-17	6/23/2015	9.22E-17	9/17/2015	1.07E-16	12/8/2015	1.187E-16	2.00E-11
ENGWESA013	AC-228	5/27/2015	3.27E-16	6/23/2015	1.33E-16	9/17/2015	1.57E-16	12/8/2015	9.134E-17	2.00E-11
ENGWESA001	BI-214	5/27/2015	1.52E-16	6/24/2015	4.71E-17	9/16/2015	1.39E-16	12/8/2015	5.743E-17	2.00E-12
ENGWESA002	BI-214	5/28/2015	1.61E-16	6/24/2015	8.67E-17			12/8/2015	1.032E-16	2.00E-12
ENGWESA003	BI-214	5/28/2015	1.09E-16	6/24/2015	5.49E-17	9/17/2015	-1.67E-17	12/8/2015	6.108E-17	2.00E-12
ENGWESA004	BI-214	5/28/2015	8.94E-17	6/24/2015	1.40E-16	9/17/2015	8.37E-17	12/8/2015	1.079E-16	2.00E-12
ENGWESA005	BI-214	5/27/2015	1.01E-16	6/23/2015	7.55E-18	9/16/2015	7.85E-17	12/8/2015	5.507E-16	2.00E-12
ENGWESA006	BI-214	5/27/2015	4.51E-17	6/24/2015	1.31E-16	9/16/2015	1.20E-16	12/8/2015	2.183E-16	2.00E-12
ENGWESA007	BI-214	5/27/2015	2.16E-16	6/23/2015	3.74E-17	9/16/2015	9.27E-17	12/8/2015	7.898E-17	2.00E-12
ENGWESA008	BI-214	5/27/2015	5.24E-17	6/23/2015	2.27E-16	9/16/2015	6.86E-17	12/8/2015	7.318E-17	2.00E-12
ENGWESA009	BI-214	5/28/2015		6/23/2015	6.98E-17	9/17/2015	2.35E-17	12/8/2015	2.874E-17	2.00E-12
ENGWESA010	BI-214	5/28/2015	1.13E-16	6/23/2015	-2.02E-17	9/17/2015	8.51E-17	12/8/2015	1.113E-17	2.00E-12
ENGWESA011	BI-214	5/27/2015	1.42E-16	6/23/2015	5.87E-17	9/16/2015	1.48E-16	12/8/2015	7.638E-17	2.00E-12
ENGWESA012	BI-214	5/27/2015	3.63E-17	6/23/2015	5.21E-17	9/17/2015	1.31E-16	12/8/2015	3.107E-17	2.00E-12
ENGWESA013	BI-214	5/27/2015	2.23E-17	6/23/2015	3.74E-17	9/17/2015	3.69E-17	12/8/2015	1.709E-17	2.00E-12

Comparison of Isotopic Results to NRC Appendix B Effluent Limits										
Client ID	Analyte	Sample Date	uCi/ml	Sample Date	uCi/ml	Sample Date	uCi/ml	Sample Date	uCi/ml	NRC Eff Limit
ENGWESA001	PB-210	5/27/2015	8.89E-15	6/24/2015	8.51E-15	9/16/2015	2.54E-14	12/8/2015	1.951E-14	6.00E-13
ENGWESA002	PB-210	5/28/2015	1.14E-14	6/24/2015	9.67E-15			12/8/2015	1.722E-14	6.00E-13
ENGWESA003	PB-210	5/28/2015	9.09E-15	6/24/2015	1.01E-14	9/17/2015	2.45E-14	12/8/2015	1.884E-14	6.00E-13
ENGWESA004	PB-210	5/28/2015	7.43E-15	6/24/2015	1.03E-14	9/17/2015	2.20E-14	12/8/2015	2.202E-14	6.00E-13
ENGWESA005	PB-210	5/27/2015	9.97E-15	6/23/2015	9.31E-15	9/16/2015	2.41E-14	12/8/2015	2.22E-13	6.00E-13
ENGWESA006	PB-210	5/27/2015	6.55E-15	6/24/2015	1.00E-15	9/16/2015	2.67E-14	12/8/2015	2.228E-14	6.00E-13
ENGWESA007	PB-210	5/27/2015	7.31E-15	6/23/2015	1.06E-14	9/16/2015	2.11E-14	12/8/2015	2.082E-14	6.00E-13
ENGWESA008	PB-210	5/27/2015	8.85E-15	6/23/2015	9.34E-15	9/16/2015	2.32E-14	12/8/2015	2.095E-14	6.00E-13
ENGWESA009	PB-210	5/28/2015		6/23/2015	9.50E-15	9/17/2015	2.10E-14	12/8/2015	2.013E-14	6.00E-13
ENGWESA010	PB-210	5/28/2015	6.20E-15	6/23/2015	9.78E-15	9/17/2015	2.35E-14	12/8/2015	1.628E-14	6.00E-13
ENGWESA011	PB-210	5/27/2015	8.42E-15	6/23/2015	1.08E-14	9/16/2015	2.27E-14	12/8/2015	2.299E-14	6.00E-13
ENGWESA012	PB-210	5/27/2015	9.05E-15	6/23/2015	1.25E-14	9/17/2015	2.14E-14	12/8/2015	2.098E-14	6.00E-13
ENGWESA013	PB-210	5/27/2015	2.02E-14	6/23/2015	9.92E-15	9/17/2015	2.23E-14	12/8/2015	2.759E-14	6.00E-13
ENGWESA001	PB-214	5/27/2015	2.92E-17	6/24/2015	1.19E-16	9/16/2015	8.14E-17	12/8/2015	7.047E-17	1.00E-09
ENGWESA002	PB-214	5/28/2015	5.73E-17	6/24/2015	1.12E-16			12/8/2015	5.612E-17	1.00E-09
ENGWESA003	PB-214	5/28/2015	1.25E-16	6/24/2015	3.23E-17	9/17/2015	1.12E-17	12/8/2015	1.232E-16	1.00E-09
ENGWESA004	PB-214	5/28/2015	6.76E-17	6/24/2015	8.59E-17	9/17/2015	-1.32E-17	12/8/2015	-2.6E-17	1.00E-09
ENGWESA005	PB-214	5/27/2015	1.06E-16	6/23/2015	3.64E-17	9/16/2015	1.12E-16	12/8/2015	4.456E-16	1.00E-09
ENGWESA006	PB-214	5/27/2015	-3.19E-17	6/24/2015	8.47E-17	9/16/2015	7.62E-17	12/8/2015	1.101E-16	1.00E-09
ENGWESA007	PB-214	5/27/2015	1.68E-16	6/23/2015	3.86E-17	9/16/2015	1.62E-16	12/8/2015	4.889E-17	1.00E-09
ENGWESA008	PB-214	5/27/2015	1.02E-17	6/23/2015	5.95E-17	9/16/2015	4.52E-17	12/8/2015	5.685E-17	1.00E-09
ENGWESA009	PB-214	5/28/2015		6/23/2015	4.63E-17	9/17/2015	2.65E-17	12/8/2015	1.347E-16	1.00E-09
ENGWESA010	PB-214	5/28/2015	3.27E-17	6/23/2015	6.64E-17	9/17/2015	5.80E-17	12/8/2015	8.034E-17	1.00E-09
ENGWESA011	PB-214	5/27/2015	9.75E-17	6/23/2015	7.02E-17	9/16/2015	9.31E-17	12/8/2015	1.034E-16	1.00E-09
ENGWESA012	PB-214	5/27/2015	3.25E-18	6/23/2015	9.01E-17	9/17/2015	4.76E-17	12/8/2015	6.721E-17	1.00E-09
ENGWESA013	PB-214	5/27/2015	1.22E-16	6/23/2015	1.17E-16	9/17/2015	9.00E-17	12/8/2015	1.896E-17	1.00E-09
ENGWESA001	K-40	5/27/2015	9.26E-16	6/24/2015	7.48E-16	9/16/2015	8.05E-16	12/8/2015	8.035E-17	6.00E-10
ENGWESA002	K-40	5/28/2015	5.69E-16	6/24/2015	9.78E-16			12/8/2015	8.721E-16	6.00E-10
ENGWESA003	K-40	5/28/2015	1.31E-15	6/24/2015	7.54E-16	9/17/2015	4.33E-16	12/8/2015	1.723E-16	6.00E-10
ENGWESA004	K-40	5/28/2015	3.62E-16	6/24/2015	1.03E-15	9/17/2015	7.32E-16	12/8/2015	1.111E-15	6.00E-10
ENGWESA005	K-40	5/27/2015	4.23E-16	6/23/2015	7.88E-16	9/16/2015	1.14E-15	12/8/2015	-3.06E-15	6.00E-10
ENGWESA006	K-40	5/27/2015	3.34E-16	6/24/2015	-6.94E-17	9/16/2015	6.75E-16	12/8/2015	3.738E-16	6.00E-10
ENGWESA007	K-40	5/27/2015	1.50E-15	6/23/2015	5.59E-16	9/16/2015	1.01E-15	12/8/2015	6.384E-16	6.00E-10
ENGWESA008	K-40	5/27/2015	4.09E-16	6/23/2015	7.61E-16	9/16/2015	6.55E-16	12/8/2015	1.01E-15	6.00E-10
ENGWESA009	K-40	5/28/2015		6/23/2015	6.84E-16	9/17/2015	9.71E-16	12/8/2015	5.776E-16	6.00E-10
ENGWESA010	K-40	5/28/2015	4.07E-16	6/23/2015	5.16E-16	9/17/2015	1.87E-16	12/8/2015	3.49E-16	6.00E-10
ENGWESA011	K-40	5/27/2015	1.63E-15	6/23/2015	1.36E-15	9/16/2015	1.28E-15	12/8/2015	1.006E-15	6.00E-10
ENGWESA012	K-40	5/27/2015	8.61E-16	6/23/2015	1.12E-15	9/17/2015	7.55E-16	12/8/2015	1.966E-16	6.00E-10
ENGWESA013	K-40	5/27/2015	5.26E-16	6/23/2015	1.05E-15	9/17/2015	5.50E-16	12/8/2015	4.243E-16	6.00E-10

Comparison of Isotopic Results to NRC Appendix B Effluent Limits										
Client ID	Analyte	Sample Date	uCi/ml	Sample Date	uCi/ml	Sample Date	uCi/ml	Sample Date	uCi/ml	NRC Eff Limit
ENGWESA001	PA-231	5/27/2015	6.31E-17	6/24/2015	7.07E-16	9/16/2015	1.24E-15	12/8/2015	-1.54E-16	8.00E-15
ENGWESA002	PA-231	5/28/2015	9.50E-16	6/24/2015	-2.38E-16			12/8/2015	1.079E-15	8.00E-15
ENGWESA003	PA-231	5/28/2015	-2.36E-16	6/24/2015	-4.68E-16	9/17/2015	-2.80E-16	12/8/2015	5.664E-16	8.00E-15
ENGWESA004	PA-231	5/28/2015	2.49E-16	6/24/2015	-3.29E-16	9/17/2015	-2.07E-16	12/8/2015	-1.02E-15	8.00E-15
ENGWESA005	PA-231	5/27/2015	-8.81E-16	6/23/2015	8.39E-16	9/16/2015	6.49E-16	12/8/2015	-1.08E-14	8.00E-15
ENGWESA006	PA-231	5/27/2015	2.05E-16	6/24/2015	8.85E-16	9/16/2015	-9.83E-18	12/8/2015	3.871E-15	8.00E-15
ENGWESA007	PA-231	5/27/2015	-4.21E-16	6/23/2015	-4.38E-16	9/16/2015	-8.43E-16	12/8/2015	1.694E-15	8.00E-15
ENGWESA008	PA-231	5/27/2015	7.96E-16	6/23/2015	-9.23E-16	9/16/2015	1.30E-15	12/8/2015	3.693E-16	8.00E-15
ENGWESA009	PA-231	5/28/2015		6/23/2015	6.21E-16	9/17/2015	-1.52E-15	12/8/2015	1.265E-15	8.00E-15
ENGWESA010	PA-231	5/28/2015	2.80E-15	6/23/2015	8.74E-16	9/17/2015	3.91E-16	12/8/2015	2.51E-16	8.00E-15
ENGWESA011	PA-231	5/27/2015	8.74E-17	6/23/2015	1.26E-15	9/16/2015	-2.79E-16	12/8/2015	5.36E-16	8.00E-15
ENGWESA012	PA-231	5/27/2015	9.05E-16	6/23/2015	7.07E-16	9/17/2015	-2.16E-15	12/8/2015	-3.81E-16	8.00E-15
ENGWESA013	PA-231	5/27/2015	2.16E-16	6/23/2015	-7.66E-16	9/17/2015	3.14E-16	12/8/2015	2.086E-16	8.00E-15
ENGWESA001	TH-230	5/27/2015	2.36E-17	6/24/2015	1.75E-17	9/16/2015	3.45E-17	12/8/2015	6.583E-17	3.00E-14
ENGWESA002	TH-230	5/28/2015	2.76E-17	6/24/2015	8.08E-18			12/8/2015	5.182E-17	3.00E-14
ENGWESA003	TH-230	5/28/2015	2.76E-17	6/24/2015	1.90E-17	9/17/2015	7.03E-17	12/8/2015	5.986E-17	3.00E-14
ENGWESA004	TH-230	5/28/2015	3.14E-17	6/24/2015	3.87E-17	9/17/2015	4.82E-17	12/8/2015	4.942E-17	3.00E-14
ENGWESA005	TH-230	5/27/2015	2.93E-17	6/23/2015	3.39E-17	9/16/2015	2.85E-17	12/8/2015	7.017E-17	3.00E-14
ENGWESA006	TH-230	5/27/2015	3.08E-17	6/24/2015	1.05E-17	9/16/2015	8.06E-17	12/8/2015	6.017E-17	3.00E-14
ENGWESA007	TH-230	5/27/2015	5.81E-17	6/23/2015	2.93E-17	9/16/2015	3.67E-17	12/8/2015	7.223E-17	3.00E-14
ENGWESA008	TH-230	5/27/2015	3.17E-17	6/23/2015	1.93E-17	9/16/2015	5.87E-17	12/8/2015	5.786E-17	3.00E-14
ENGWESA009	TH-230	5/28/2015		6/23/2015	3.05E-17	9/17/2015	2.34E-17	12/8/2015	4.842E-17	3.00E-14
ENGWESA010	TH-230	5/28/2015	4.14E-17	6/23/2015	2.66E-17	9/17/2015	7.20E-17	12/8/2015	6.252E-17	3.00E-14
ENGWESA011	TH-230	5/27/2015	3.65E-17	6/23/2015	2.23E-17	9/16/2015	7.63E-17	12/8/2015	8.194E-17	3.00E-14
ENGWESA012	TH-230	5/27/2015	3.51E-17	6/23/2015	4.96E-17	9/17/2015	8.64E-17	12/8/2015	8.031E-17	3.00E-14
ENGWESA013	TH-230	5/27/2015	4.39E-17	6/23/2015	1.78E-17	9/17/2015	2.21E-17	12/8/2015	4.033E-17	3.00E-14
ENGWESA001	TH-232	5/27/2015	2.75E-18	6/24/2015	7.10E-18	9/16/2015	1.55E-17	12/8/2015	2.05E-17	5.00E-14
ENGWESA002	TH-232	5/28/2015	1.18E-17	6/24/2015	6.78E-19			12/8/2015	1.221E-17	5.00E-14
ENGWESA003	TH-232	5/28/2015	8.91E-18	6/24/2015	2.35E-18	9/17/2015	1.79E-17	12/8/2015	1.768E-17	5.00E-14
ENGWESA004	TH-232	5/28/2015	1.45E-17	6/24/2015	1.68E-17	9/17/2015	1.22E-17	12/8/2015	1.672E-17	5.00E-14
ENGWESA005	TH-232	5/27/2015	1.16E-17	6/23/2015	1.06E-17	9/16/2015	1.25E-17	12/8/2015	2.512E-17	5.00E-14
ENGWESA006	TH-232	5/27/2015	1.66E-17	6/24/2015	5.82E-18	9/16/2015	2.74E-17	12/8/2015	1.345E-17	5.00E-14
ENGWESA007	TH-232	5/27/2015	1.68E-17	6/23/2015	1.08E-17	9/16/2015	9.39E-18	12/8/2015	2.011E-17	5.00E-14
ENGWESA008	TH-232	5/27/2015	8.38E-18	6/23/2015	4.32E-18	9/16/2015	2.23E-17	12/8/2015	2.011E-17	5.00E-14
ENGWESA009	TH-232	5/28/2015		6/23/2015	6.92E-18	9/17/2015	1.32E-17	12/8/2015	1.488E-17	5.00E-14
ENGWESA010	TH-232	5/28/2015	1.50E-17	6/23/2015	7.44E-18	9/17/2015	2.64E-17	12/8/2015	1.452E-17	5.00E-14
ENGWESA011	TH-232	5/27/2015	1.64E-17	6/23/2015	6.18E-18	9/16/2015	3.07E-17	12/8/2015	2.808E-17	5.00E-14
ENGWESA012	TH-232	5/27/2015	1.13E-17	6/23/2015	2.12E-17	9/17/2015	1.79E-17	12/8/2015	2.322E-17	5.00E-14
ENGWESA013	TH-232	5/27/2015	1.80E-17	6/23/2015	3.21E-18	9/17/2015	6.96E-18	12/8/2015	1.394E-17	5.00E-14

Comparison of Isotopic Results to NRC Appendix B Effluent Limits										
Client ID	Analyte	Sample Date	uCi/ml	Sample Date	uCi/ml	Sample Date	uCi/ml	Sample Date	uCi/ml	NRC Eff Limit
ENGWESA001	U-234	5/27/2015	3.94E-17	6/24/2015	3.60E-17	9/16/2015	4.02E-17	12/8/2015	2.325E-17	6.00E-14
ENGWESA002	U-234	5/28/2015	3.13E-17	6/24/2015	3.10E-17			12/8/2015	1.844E-17	6.00E-14
ENGWESA003	U-234	5/28/2015	3.59E-17	6/24/2015	3.73E-17	9/17/2015	2.98E-17	12/8/2015	2.423E-17	6.00E-14
ENGWESA004	U-234	5/28/2015	4.40E-17	6/24/2015	2.96E-17	9/17/2015	2.42E-17	12/8/2015	2.532E-17	6.00E-14
ENGWESA005	U-234	5/27/2015	4.99E-17	6/23/2015	2.34E-17	9/16/2015	2.92E-17	12/8/2015	2.927E-17	6.00E-14
ENGWESA006	U-234	5/27/2015	2.81E-17	6/24/2015	3.03E-17	9/16/2015	2.77E-17	12/8/2015	2.365E-17	6.00E-14
ENGWESA007	U-234	5/27/2015	4.69E-17	6/23/2015	4.42E-17	9/16/2015	3.48E-17	12/8/2015	2.026E-17	6.00E-14
ENGWESA008	U-234	5/27/2015	2.66E-17	6/23/2015	3.64E-17	9/16/2015	1.92E-17	12/8/2015	3.199E-17	6.00E-14
ENGWESA009	U-234	5/28/2015		6/23/2015	4.64E-17	9/17/2015	2.11E-17	12/8/2015	2.892E-17	6.00E-14
ENGWESA010	U-234	5/28/2015	5.33E-17	6/23/2015	3.55E-17	9/17/2015	4.68E-17	12/8/2015	2.611E-17	6.00E-14
ENGWESA011	U-234	5/27/2015	2.78E-17	6/23/2015	2.52E-17	9/16/2015	2.55E-17	12/8/2015	3.255E-17	6.00E-14
ENGWESA012	U-234	5/27/2015	3.71E-17	6/23/2015	5.48E-17	9/17/2015	1.77E-17	12/8/2015	2.824E-17	6.00E-14
ENGWESA013	U-234	5/27/2015	1.81E-17	6/23/2015	2.58E-17	9/17/2015	3.29E-17	12/8/2015	3.074E-17	6.00E-14
ENGWESA001	U-235	5/27/2015	5.20E-18	6/24/2015	1.95E-18	9/16/2015	1.26E-17	12/8/2015	8.258E-18	6.00E-14
ENGWESA002	U-235	5/28/2015	1.95E-18	6/24/2015	1.01E-18			12/8/2015	3.434E-18	6.00E-14
ENGWESA003	U-235	5/28/2015	7.24E-18	6/24/2015	2.39E-18	9/17/2015	3.53E-18	12/8/2015	5.882E-18	6.00E-14
ENGWESA004	U-235	5/28/2015	1.79E-18	6/24/2015	6.64E-18	9/17/2015	8.86E-18	12/8/2015	4.066E-18	6.00E-14
ENGWESA005	U-235	5/27/2015	7.72E-19	6/23/2015	2.94E-18	9/16/2015	5.71E-19	12/8/2015	8.425E-18	6.00E-14
ENGWESA006	U-235	5/27/2015	-5.84E-19	6/24/2015	3.20E-18	9/16/2015	1.82E-18	12/8/2015	5.497E-18	6.00E-14
ENGWESA007	U-235	5/27/2015	3.73E-18	6/23/2015	9.82E-18	9/16/2015	5.77E-18	12/8/2015	-5.5E-19	6.00E-14
ENGWESA008	U-235	5/27/2015	7.87E-18	6/23/2015	3.87E-18	9/16/2015	3.41E-18	12/8/2015	2.053E-18	6.00E-14
ENGWESA009	U-235	5/28/2015		6/23/2015	7.54E-18	9/17/2015	5.47E-18	12/8/2015	2.456E-18	6.00E-14
ENGWESA010	U-235	5/28/2015	4.63E-18	6/23/2015	3.05E-18	9/17/2015	6.31E-18	12/8/2015	7.294E-18	6.00E-14
ENGWESA011	U-235	5/27/2015	1.97E-18	6/23/2015	3.16E-18	9/16/2015	4.76E-18	12/8/2015	3.482E-18	6.00E-14
ENGWESA012	U-235	5/27/2015	2.06E-18	6/23/2015	1.36E-17	9/17/2015	3.92E-18	12/8/2015	7.21E-18	6.00E-14
ENGWESA013	U-235	5/27/2015	2.11E-18	6/23/2015	6.83E-18	9/17/2015	4.42E-18	12/8/2015	6.182E-18	6.00E-14
ENGWESA001	U-238	5/27/2015	3.36E-17	6/24/2015	3.13E-17	9/16/2015	2.58E-17	12/8/2015	2.453E-17	6.00E-14
ENGWESA002	U-238	5/28/2015	3.43E-17	6/24/2015	3.05E-17			12/8/2015	1.844E-17	6.00E-14
ENGWESA003	U-238	5/28/2015	5.08E-17	6/24/2015	3.45E-17	9/17/2015	2.99E-17	12/8/2015	3.017E-17	6.00E-14
ENGWESA004	U-238	5/28/2015	3.65E-17	6/24/2015	3.47E-17	9/17/2015	2.73E-17	12/8/2015	2.425E-17	6.00E-14
ENGWESA005	U-238	5/27/2015	4.28E-17	6/23/2015	1.38E-17	9/16/2015	3.81E-17	12/8/2015	2.331E-17	6.00E-14
ENGWESA006	U-238	5/27/2015	2.54E-17	6/24/2015	3.19E-17	9/16/2015	2.09E-17	12/8/2015	2.287E-17	6.00E-14
ENGWESA007	U-238	5/27/2015	4.32E-17	6/23/2015	2.94E-17	9/16/2015	2.92E-17	12/8/2015	2.12E-17	6.00E-14
ENGWESA008	U-238	5/27/2015	4.61E-17	6/23/2015	3.39E-17	9/16/2015	2.42E-17	12/8/2015	2.301E-17	6.00E-14
ENGWESA009	U-238	5/28/2015		6/23/2015	3.32E-17	9/17/2015	3.57E-17	12/8/2015	2.36E-17	6.00E-14
ENGWESA010	U-238	5/28/2015	3.82E-17	6/23/2015	3.16E-17	9/17/2015	4.34E-17	12/8/2015	2.6E-17	6.00E-14
ENGWESA011	U-238	5/27/2015	2.51E-17	6/23/2015	2.39E-17	9/16/2015	3.96E-17	12/8/2015	3.306E-17	6.00E-14
ENGWESA012	U-238	5/27/2015	2.69E-17	6/23/2015	4.13E-17	9/17/2015	2.23E-17	12/8/2015	2.534E-17	6.00E-14
ENGWESA013	U-238	5/27/2015	1.95E-17	6/23/2015	3.49E-17	9/17/2015	2.67E-17	12/8/2015	2.724E-17	6.00E-14

APPENDIX D

VALIDATED VOLATILE ORGANIC COMPOUND RESULTS

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	1,1,1-Trichloroethane			1,2-Dichloroethane			1,4-Dichlorobenzene			2-Butanone (Methyl Ethyl Ketone)			4-Methyl-2-pentanone			Acetone		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA001	5/13/2015 11:05:00 AM	UG/M3	ND	U	0.094	ND	U	0.076	ND	U	0.11	0.2		0.074	ND	U	0.17	0.3		0.15
ENGWESA001	5/27/2015 4:33:00 PM	UG/M3	ND	U	0.079	ND	U	0.063	ND	U	0.096	0.13		0.062	ND	U	0.14	ND	U	0.13
ENGWESA001	6/10/2015 11:01:00 AM	UG/M3	ND	U	0.081	ND	U	0.065	ND	U	0.099	0.17		0.064	ND	U	0.15	0.17		0.13
ENGWESA001 FD	6/10/2015 11:08:00 AM	UG/M3	ND	U	0.081	ND	U	0.065	ND	U	0.099	0.13		0.064	ND	U	0.15	0.16		0.13
ENGWESA001	6/24/2015 12:00:00 PM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.16		0.063	ND	U	0.15	ND	U	0.13
ENGWESA001	7/8/15 3:33 PM	UG/M3	ND	U	0.079	ND	U	0.064	ND	U	0.096	0.18		0.062	ND	U	0.15	0.15		0.13
ENGWESA001	7/22/15 2:24 PM	UG/M3	ND	U	0.08	ND	U	0.065	ND	U	0.098	0.18		0.063	ND	U	0.15	ND	U	0.13
ENGWESA001	8/5/15 9:17 AM	UG/M3	ND	U	0.081	ND	U	0.065	ND	U	0.099	0.18		0.064	ND	U	0.15	ND	U	0.13
ENGWESA001	8/19/15 11:15 AM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.18		0.062	ND	U	0.15	0.15		0.13
ENGWESA001	9/2/15 9:50 AM	UG/M3	ND	U	0.08	ND	U	0.065	ND	U	0.098	0.18		0.063	ND	U	0.15	ND	U	0.13
ENGWESA001 FD	9/2/15 9:50 AM	UG/M3	ND	U	0.08	ND	U	0.065	ND	U	0.098	0.16		0.063	ND	U	0.15	ND	U	0.13
ENGWESA001	9/16/15 11:18 AM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.12		0.062	ND	U	0.15	0.19		0.13
ENGWESA001	9/30/15 12:03 PM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.22		0.063	ND	U	0.15	0.29		0.13
ENGWESA001	10/14/15 1:56 PM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.087		0.062	ND	U	0.15	0.2		0.13
ENGWESA001	10/27/15 3:33 PM	UG/M3	ND	U	0.086	ND	U	0.069	ND	U	0.1	0.17		0.067	ND	U	0.16	0.38		0.14
ENGWESA001	11/9/15 11:28 AM	UG/M3	ND	U	0.087	ND	U	0.07	ND	U	0.11	0.22		0.068	ND	U	0.16	0.48		0.14
ENGWESA001	11/25/15 11:55 AM	UG/M3	ND	U	0.07	ND	U	0.056	ND	U	0.085	0.15		0.055	ND	U	0.13	0.23		0.11
ENGWESA001 FD	11/25/15 11:55 AM	UG/M3	ND	U	0.07	ND	U	0.056	ND	U	0.085	0.14		0.055	ND	U	0.13	0.2		0.11
ENGWESA001	12/8/15 12:20 PM	UG/M3	ND	U	0.086	ND	U	0.069	ND	U	0.1	0.26		0.068	ND	U	0.16	0.71		0.14
ENGWESA001	12/23/15 9:15 AM	UG/M3	ND	U	0.075	ND	U	0.061	ND	U	0.092	0.29		0.059	ND	U	0.14	0.26	J-	0.12
ENGWESA001 FD	12/23/15 9:15 AM	UG/M3	ND	U	0.075	ND	U	0.061	ND	U	0.092	0.27		0.059	ND	U	0.14	0.25	J-	0.12
ENGWESA001	1/7/16 1:56 PM	UG/M3	ND	UJ-	0.074	ND	U	0.059	ND	U	0.09	0.18		0.058	ND	U	0.14	0.44	J-	0.12
ENGWESA001	1/20/16 11:58 AM	UG/M3	ND	UJ-	0.087	ND	U	0.07	ND	U	0.1	0.26		0.068	ND	U	0.16	0.63		0.14

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	1,1,1-Trichloroethane			1,2-Dichloroethane			1,4-Dichlorobenzene			2-Butanone (Methyl Ethyl Ketone)			4-Methyl-2-pentanone			Acetone		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA005	5/13/2015 11:35:00 AM	UG/M3	ND	U	0.093	ND	U	0.075	ND	U	0.11	0.27		0.073	ND	U	0.17	0.39		0.15
ENGWESA005	5/27/2015 3:14:00 PM	UG/M3	ND	U	0.079	ND	U	0.064	ND	U	0.096	0.14		0.062	ND	U	0.15	ND	U	0.13
ENGWESA005	6/10/2015 10:13:00 AM	UG/M3	ND	U	0.081	ND	U	0.065	ND	U	0.099	0.22		0.064	ND	U	0.15	0.21		0.13
ENGWESA005	6/23/2015 10:50:00 AM	UG/M3	ND	U	0.086	ND	U	0.069	ND	U	0.1	0.19		0.068	ND	U	0.16	ND	U	0.14
ENGWESA005 FD	6/23/2015 10:50:00 AM	UG/M3	ND	U	0.086	ND	U	0.069	ND	U	0.1	0.17		0.068	ND	U	0.16	ND	U	0.14
ENGWESA005	7/8/15 3:33 PM	UG/M3	ND	U	0.074	ND	U	0.059	ND	U	0.09	0.2		0.058	ND	U	0.14	0.18		0.12
ENGWESA005	7/22/15 11:04 AM	UG/M3	ND	U	0.081	ND	U	0.065	ND	U	0.098	0.16		0.064	ND	U	0.15	ND	U	0.13
ENGWESA005	8/5/15 9:30 AM	UG/M3	ND	U	0.08	ND	U	0.065	ND	U	0.098	0.18		0.063	ND	U	0.15	ND	U	0.13
ENGWESA005 FD	8/5/15 9:30 AM	UG/M3	ND	U	0.08	ND	U	0.065	ND	U	0.098	0.14		0.063	ND	U	0.15	ND	U	0.13
ENGWESA005	8/19/15 10:00 AM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.18		0.063	ND	U	0.15	ND	U	0.13
ENGWESA005	9/2/15 10:15 AM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.19		0.063	ND	U	0.15	ND	U	0.13
ENGWESA005	9/16/15 1:07 PM	UG/M3	ND	U	0.079	ND	U	0.064	ND	U	0.096	0.2		0.062	ND	U	0.15	0.3		0.13
ENGWESA005	9/30/15 10:11 AM	UG/M3	ND	U	0.081	ND	U	0.065	ND	U	0.098	0.26		0.063	ND	U	0.15	0.32		0.13
ENGWESA005	10/14/15 3:25 PM	UG/M3	ND	U	0.079	ND	U	0.063	ND	U	0.096	0.12		0.062	ND	U	0.14	0.2		0.13
ENGWESA005 FD	10/14/15 3:25 PM	UG/M3	ND	U	0.079	ND	U	0.063	ND	U	0.096	0.11		0.062	ND	U	0.14	0.19		0.13
ENGWESA005	10/27/15 3:10 PM	UG/M3	ND	U	0.086	ND	U	0.069	ND	U	0.1	0.26		0.068	ND	U	0.16	0.5		0.14
ENGWESA005	11/9/15 10:22 AM	UG/M3	ND	U	0.088	ND	U	0.07	ND	U	0.11	0.3		0.069	ND	U	0.16	0.68		0.14
ENGWESA005	11/25/15 11:45 AM	UG/M3	ND	U	0.07	ND	U	0.056	ND	U	0.085	0.23		0.055	ND	U	0.13	0.34		0.11
ENGWESA005	12/8/15 11:22 AM	UG/M3	ND	U	0.086	ND	U	0.069	ND	U	0.1	0.28		0.068	ND	U	0.16	0.72		0.14
ENGWESA005	12/23/15 9:38 AM	UG/M3	ND	U	0.075	ND	U	0.06	ND	U	0.091	0.29		0.059	ND	U	0.14	0.28	J-	0.12
ENGWESA005	1/8/16 1:00 PM	UG/M3	ND	UJ-	0.069	ND	U	0.056	ND	U	0.084	0.17		0.054	ND	U	0.13	0.37	J-	0.11
ENGWESA005 FD	1/8/16 1:00 PM	UG/M3	ND	UJ-	0.069	ND	U	0.056	ND	U	0.084	0.13		0.054	ND	U	0.13	0.25	J-	0.11
ENGWESA005	1/20/16 11:14 AM	UG/M3	ND	UJ-	0.094	ND	U	0.076	ND	U	0.11	0.3		0.074	ND	U	0.17	0.77		0.15

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	1,1,1-Trichloroethane			1,2-Dichloroethane			1,4-Dichlorobenzene			2-Butanone (Methyl Ethyl Ketone)			4-Methyl-2-pentanone			Acetone		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA007	5/13/2015 11:25:00 AM	UG/M3	ND	U	0.093	ND	U	0.075	ND	U	0.11	0.27		0.073	ND	U	0.17	0.41		0.15
ENGWESA007	5/27/2015 12:32:00 PM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.17		0.062	ND	U	0.15	ND	U	0.13
ENGWESA007	6/10/2015 10:03:00 AM	UG/M3	ND	U	0.081	ND	U	0.065	ND	U	0.098	0.22		0.063	ND	U	0.15	0.25		0.13
ENGWESA007	6/23/2015 10:05:00 AM	UG/M3	ND	U	0.086	ND	U	0.069	ND	U	0.1	0.25		0.068	ND	U	0.16	ND	U	0.14
ENGWESA007	7/8/15 3:33 PM	UG/M3	ND	U	0.074	ND	U	0.059	ND	U	0.09	0.21		0.058	ND	U	0.14	0.16		0.12
ENGWESA007 FD	7/8/15 3:33 PM	UG/M3	ND	U	0.081	ND	U	0.065	ND	U	0.098	0.21		0.064	ND	U	0.15	ND	U	0.13
ENGWESA007	7/22/15 10:40 AM	UG/M3	ND	U	0.081	ND	U	0.065	ND	U	0.098	0.17		0.064	ND	U	0.15	ND	U	0.13
ENGWESA007	7/22/15 10:40 AM	UG/M3	ND	U	0.074	ND	U	0.06	ND	U	0.09	0.23		0.058	ND	U	0.14	0.19		0.12
ENGWESA007	8/5/15 9:29 AM	UG/M3	ND	U	0.08	ND	U	0.065	ND	U	0.098	0.17		0.063	ND	U	0.15	0.13		0.13
ENGWESA007	8/19/15 7:45 PM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.16		0.063	ND	U	0.15	0.15		0.13
ENGWESA007	9/2/15 10:05 AM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.2		0.063	ND	U	0.15	0.14		0.13
ENGWESA007	9/16/15 1:22 PM	UG/M3	ND	U	0.079	ND	U	0.064	ND	U	0.096	0.13		0.062	ND	U	0.15	0.22		0.13
ENGWESA007 FD	9/16/15 1:22 PM	UG/M3	ND	U	0.079	ND	U	0.064	ND	U	0.096	0.19		0.062	ND	U	0.15	0.31		0.13
ENGWESA007	9/30/15 10:19 AM	UG/M3	ND	U	0.081	ND	U	0.065	ND	U	0.098	0.21		0.063	ND	U	0.15	0.34		0.13
ENGWESA007	10/14/15 3:00 PM	UG/M3	ND	U	0.079	ND	U	0.064	ND	U	0.096	0.096		0.062	ND	U	0.15	0.16		0.13
ENGWESA007	10/27/15 3:00 PM	UG/M3	ND	U	0.086	ND	U	0.069	ND	U	0.1	0.24		0.068	ND	U	0.16	0.45		0.14
ENGWESA007	11/9/15 10:00 AM	UG/M3	ND	U	0.088	ND	U	0.07	ND	U	0.11	0.28		0.069	ND	U	0.16	0.69		0.14
ENGWESA007	11/25/15 12:26 PM	UG/M3	ND	U	0.07	ND	U	0.056	ND	U	0.084	0.27		0.054	ND	U	0.13	0.46		0.11
ENGWESA007	12/8/15 11:07 AM	UG/M3	ND	U	0.086	ND	U	0.07	ND	U	0.1	0.32		0.068	ND	U	0.16	1.1		0.14
ENGWESA007 FD	12/8/15 11:07 AM	UG/M3	ND	U	0.086	ND	U	0.07	ND	U	0.1	0.32		0.068	ND	U	0.16	1.1		0.14
ENGWESA007	12/23/15 9:43 AM	UG/M3	ND	U	0.075	ND	U	0.06	ND	U	0.091	0.3		0.059	ND	U	0.14	0.34	J-	0.12
ENGWESA007	1/8/16 1:12 PM	UG/M3	ND	UJ-	0.069	ND	U	0.056	ND	U	0.084	0.17		0.054	ND	U	0.13	0.42	J-	0.11
ENGWESA007	1/20/16 11:06 AM	UG/M3	ND	UJ-	0.094	ND	U	0.076	ND	U	0.11	0.37		0.074	ND	U	0.17	1.2		0.15
ENGWESA007 FD	1/20/16 11:06 AM	UG/M3	ND	UJ-	0.094	ND	U	0.076	ND	U	0.11	0.35		0.074	ND	U	0.17	1.2		0.15

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	1,1,1-Trichloroethane			1,2-Dichloroethane			1,4-Dichlorobenzene			2-Butanone (Methyl Ethyl Ketone)			4-Methyl-2-pentanone			Acetone		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA008	5/13/2015 12:05:00 PM	UG/M3	ND	U	0.094	ND	U	0.076	ND	U	0.11	0.24		0.074	ND	U	0.17	0.41		0.15
ENGWESA008	5/27/2015 4:00:00 PM	UG/M3	ND	U	0.079	ND	U	0.064	ND	U	0.096	0.15		0.062	ND	U	0.15	ND	U	0.13
ENGWESA008 FD	5/27/2015 4:00:00 PM	UG/M3	ND	U	0.079	ND	U	0.064	ND	U	0.096	0.14		0.062	ND	U	0.15	ND	U	0.13
ENGWESA008	6/10/2015 10:40:00 AM	UG/M3	ND	U	0.081	ND	U	0.065	ND	U	0.099	0.24		0.064	ND	U	0.15	0.22		0.13
ENGWESA008	6/23/2015 11:45:00 AM	UG/M3	ND	U	0.086	ND	U	0.069	ND	U	0.1	0.17		0.067	ND	U	0.16	ND	U	0.14
ENGWESA008	07/22/2015 11:29	UG/M3	ND	U	0.081	ND	U	0.065	ND	U	0.098	0.19		0.064	ND	U	0.15	ND	U	0.13
ENGWESA008	8/5/15 9:36 AM	UG/M3	ND	U	0.08	ND	U	0.065	ND	U	0.098	0.16		0.063	ND	U	0.15	ND	U	0.13
ENGWESA008	8/19/15 10:18 AM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.16		0.063	ND	U	0.15	0.13		0.13
ENGWESA008 FD	8/19/15 10:18 AM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.18		0.063	ND	U	0.15	ND	U	0.13
ENGWESA008	9/2/15 10:26 AM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.16		0.063	ND	U	0.15	ND	U	0.13
ENGWESA008	9/16/15 12:51 PM	UG/M3	ND	U	0.079	ND	U	0.064	ND	U	0.096	0.16		0.062	ND	U	0.15	0.24		0.13
ENGWESA008	9/30/15 10:04 AM	UG/M3	ND	U	0.081	ND	U	0.065	ND	U	0.098	0.2		0.063	ND	U	0.15	0.26		0.13
ENGWESA008	10/14/15 4:24 PM	UG/M3	ND	U	0.078	ND	U	0.063	ND	U	0.095	0.096		0.062	ND	U	0.14	0.14		0.13
ENGWESA008	10/27/15 3:19 PM	UG/M3	ND	U	0.086	ND	U	0.07	ND	U	0.1	0.26		0.068	ND	U	0.16	0.43		0.14
ENGWESA008 FD	10/27/15 3:19 PM	UG/M3	ND	U	0.086	ND	U	0.07	ND	U	0.1	0.23		0.068	ND	U	0.16	0.41		0.14
ENGWESA008	11/9/15 10:39 AM	UG/M3	ND	U	0.087	ND	U	0.07	ND	U	0.11	0.3		0.069	ND	U	0.16	0.65		0.14
ENGWESA008	11/25/15 12:07 PM	UG/M3	ND	U	0.07	ND	U	0.056	ND	U	0.085	0.22		0.055	ND	U	0.13	0.35		0.11
ENGWESA008	12/8/15 11:45 AM	UG/M3	ND	U	0.086	ND	U	0.069	ND	U	0.1	0.33		0.068	ND	U	0.16	0.82		0.14
ENGWESA008	12/23/15 9:30 AM	UG/M3	ND	U	0.075	ND	U	0.06	ND	U	0.091	0.3		0.059	ND	U	0.14	0.23	J-	0.12
ENGWESA008	1/7/16 11:12 AM	UG/M3	ND	UJ-	0.074	ND	U	0.06	ND	U	0.09	0.16		0.058	ND	U	0.14	0.38	J-	0.12
ENGWESA008	1/20/16 11:28 AM	UG/M3	ND	UJ-	0.086	ND	U	0.069	ND	U	0.1	0.33		0.068	ND	U	0.16	0.9		0.14

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	1,1,1-Trichloroethane			1,2-Dichloroethane			1,4-Dichlorobenzene			2-Butanone (Methyl Ethyl Ketone)			4-Methyl-2-pentanone			Acetone		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA011	5/13/2015 11:45:00 AM	UG/M3	ND	U	0.092	ND	U	0.074	ND	U	0.11	0.27		0.072	ND	U	0.17	0.36		0.15
ENGWESA011 FD	5/13/2015 11:45:00 AM	UG/M3	ND	U	0.092	ND	U	0.074	ND	U	0.11	0.28		0.072	ND	U	0.17	0.38		0.15
ENGWESA011	5/27/2015 10:30:00 AM	UG/M3	ND	U	0.08	ND	U	0.065	ND	U	0.098	0.18		0.063	ND	U	0.15	ND	U	0.13
ENGWESA011	6/10/2015 11:23:00 AM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.24		0.063	ND	U	0.15	0.23		0.13
ENGWESA011	6/23/2015 12:00:00 PM	UG/M3	ND	U	0.086	ND	U	0.069	ND	U	0.1	0.18		0.067	ND	U	0.16	ND	U	0.14
ENGWESA011	07/08/2015 14:44	UG/M3	ND	U	0.074	ND	U	0.06	ND	U	0.09	0.22		0.058	ND	U	0.14	0.16		0.12
ENGWESA011 FD	07/08/2015 14:44	UG/M3	ND	U	0.074	ND	U	0.06	ND	U	0.09	0.24		0.058	ND	U	0.14	0.16		0.12
ENGWESA011	07/22/2015 07:40	UG/M3	ND	U	0.082	ND	U	0.066	ND	U	0.099	0.18		0.064	ND	U	0.15	ND	U	0.13
ENGWESA011	8/5/15 9:43 AM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.15		0.062	ND	U	0.15	ND	U	0.13
ENGWESA011	8/19/15 10:36 AM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.14		0.063	ND	U	0.15	0.15		0.13
ENGWESA011	9/2/15 10:33 AM	UG/M3	ND	U	0.08	ND	U	0.064	ND	U	0.097	0.15		0.063	ND	U	0.15	ND	U	0.13
ENGWESA011	9/16/15 1:37 PM	UG/M3	ND	U	0.079	ND	U	0.064	ND	U	0.096	0.19		0.062	ND	U	0.15	0.28		0.13
ENGWESA011	9/30/15 10:28 AM	UG/M3	ND	U	0.081	ND	U	0.065	ND	U	0.098	0.2		0.063	ND	U	0.15	0.28		0.13
ENGWESA011 FD	9/30/15 10:28 AM	UG/M3	ND	U	0.081	ND	U	0.065	ND	U	0.098	0.21		0.063	ND	U	0.15	0.28		0.13
ENGWESA011	10/14/15 2:30 PM	UG/M3	ND	U	0.079	ND	U	0.064	ND	U	0.096	ND	U	0.062	ND	U	0.15	ND	U	0.13
ENGWESA011	10/27/15 3:47 PM	UG/M3	ND	U	0.086	ND	U	0.069	ND	U	0.1	0.22		0.067	ND	U	0.16	0.36		0.14
ENGWESA012	11/9/15 8:43 AM	UG/M3	ND	U	0.088	ND	U	0.071	ND	U	0.11	0.32		0.069	ND	U	0.16	0.59		0.14
ENGWESA012 FD	11/9/15 8:43 AM	UG/M3	ND	U	0.088	ND	U	0.071	ND	U	0.11	0.35		0.069	ND	U	0.16	0.59		0.14
ENGWESA012	11/25/15 12:16 PM	UG/M3	ND	U	0.069	ND	U	0.056	ND	U	0.084	0.22		0.054	ND	U	0.13	0.3		0.11
ENGWESA012	12/8/15 10:20 AM	UG/M3	ND	U	0.087	ND	U	0.07	ND	U	0.1	0.4		0.068	ND	U	0.16	0.93		0.14
ENGWESA012	12/23/15 10:06 AM	UG/M3	ND	U	0.075	ND	U	0.06	ND	U	0.091	0.31		0.059	ND	U	0.14	0.21	J-	0.12
ENGWESA012	1/7/16 10:56 AM	UG/M3	ND	UJ-	0.074	ND	U	0.06	ND	U	0.09	0.16		0.058	ND	U	0.14	0.36	J-	0.12
ENGWESA012	1/20/16 11:40 AM	UG/M3	ND	UJ-	0.086	ND	U	0.069	ND	U	0.1	0.33		0.067	ND	U	0.16	0.78		0.14

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Benzene			Carbon Tetrachloride			Chlorobenzene			Chloroform			Cyclohexane			Ethanol		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA001	5/13/2015 11:05:00 AM	UG/M3	ND	U	0.29	0.32		0.087	ND	U	0.086	ND	U	0.078	ND	U	0.11	ND	UJ-	0.57
ENGWESA001	5/27/2015 4:33:00 PM	UG/M3	ND	U	0.24	0.26		0.073	ND	U	0.072	ND	U	0.065	ND	U	0.09	ND	U	0.48
ENGWESA001	6/10/2015 11:01:00 AM	UG/M3	ND	U	0.25	0.23		0.075	ND	U	0.074	ND	U	0.067	ND	U	0.093	ND	U	0.49
ENGWESA001 FD	6/10/2015 11:08:00 AM	UG/M3	ND	U	0.25	0.24		0.075	ND	U	0.074	ND	U	0.067	ND	U	0.093	ND	U	0.49
ENGWESA001	6/24/2015 12:00:00 PM	UG/M3	ND	U	0.25	0.24		0.074	ND	U	0.073	ND	U	0.066	ND	U	0.092	ND	U	0.48
ENGWESA001	7/8/15 3:33 PM	UG/M3	0.28		0.24	0.26		0.073	ND	U	0.072	ND	U	0.065	ND	U	0.091	ND	U	0.48
ENGWESA001	7/22/15 2:24 PM	UG/M3	0.36		0.25	0.33		0.074	ND	U	0.073	ND	U	0.066	ND	U	0.092	ND	U	0.49
ENGWESA001	8/5/15 9:17 AM	UG/M3	0.28		0.25	0.35		0.075	ND	U	0.074	0.073		0.067	0.1		0.093	ND	U	0.49
ENGWESA001	8/19/15 11:15 AM	UG/M3	0.26		0.25	0.34		0.074	ND	U	0.072	ND	U	0.066	ND	U	0.091	ND	U	0.48
ENGWESA001	9/2/15 9:50 AM	UG/M3	0.32		0.25	0.33		0.074	ND	U	0.073	ND	U	0.066	0.14		0.092	ND	U	0.49
ENGWESA001 FD	9/2/15 9:50 AM	UG/M3	0.27		0.25	0.27		0.074	ND	U	0.073	ND	U	0.066	0.12		0.092	ND	U	0.49
ENGWESA001	9/16/15 11:18 AM	UG/M3	0.25		0.25	0.33		0.074	ND	U	0.073	ND	U	0.066	ND	U	0.091	ND	U	0.48
ENGWESA001	9/30/15 12:03 PM	UG/M3	0.41		0.25	0.34		0.074	ND	U	0.073	0.11		0.066	0.13		0.092	ND	U	0.48
ENGWESA001	10/14/15 1:56 PM	UG/M3	0.26		0.25	0.29		0.074	ND	U	0.072	0.069		0.066	0.096		0.091	ND	U	0.48
ENGWESA001	10/27/15 3:33 PM	UG/M3	0.37		0.26	0.29		0.079	ND	U	0.078	ND	U	0.071	0.12		0.098	ND	U	0.52
ENGWESA001	11/9/15 11:28 AM	UG/M3	0.4		0.27	0.31	J+	0.081	ND	U	0.08	0.082		0.072	0.14		0.1	ND	U	0.53
ENGWESA001	11/25/15 11:55 AM	UG/M3	0.46		0.22	0.34		0.065	ND	U	0.064	0.064		0.058	0.19		0.08	ND	U	0.42
ENGWESA001 FD	11/25/15 11:55 AM	UG/M3	0.41		0.22	0.33		0.065	ND	U	0.064	ND	U	0.058	0.14		0.08	ND	U	0.42
ENGWESA001	12/8/15 12:20 PM	UG/M3	0.52		0.27	0.37		0.08	ND	U	0.078	0.076		0.071	0.15		0.099	ND	UJ-	0.52
ENGWESA001	12/23/15 9:15 AM	UG/M3	0.38		0.23	0.34		0.07	ND	U	0.069	0.065		0.062	0.15		0.086	ND	UJ-	0.46
ENGWESA001 FD	12/23/15 9:15 AM	UG/M3	0.36		0.23	0.31		0.07	ND	U	0.069	ND	U	0.062	0.14		0.086	ND	UJ-	0.46
ENGWESA001	1/7/16 1:56 PM	UG/M3	0.48		0.23	0.35		0.068	ND	U	0.067	0.062		0.061	0.12		0.085	ND	UJ-	0.45
ENGWESA001	1/20/16 11:58 AM	UG/M3	0.42		0.27	0.31		0.08	ND	U	0.079	ND	U	0.072	0.14		0.1	ND	U	0.53

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Benzene			Carbon Tetrachloride			Chlorobenzene			Chloroform			Cyclohexane			Ethanol		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA005	5/13/2015 11:35:00 AM	UG/M3	ND	U	0.29	0.32		0.086	ND	U	0.085	ND	U	0.077	ND	U	0.11	ND	UJ-	0.57
ENGWESA005	5/27/2015 3:14:00 PM	UG/M3	ND	U	0.24	0.25		0.073	ND	U	0.072	ND	U	0.065	ND	U	0.091	ND	U	0.48
ENGWESA005	6/10/2015 10:13:00 AM	UG/M3	ND	U	0.25	0.3		0.075	ND	U	0.074	ND	U	0.067	ND	U	0.093	ND	U	0.49
ENGWESA005	6/23/2015 10:50:00 AM	UG/M3	ND	U	0.27	0.22		0.08	ND	U	0.078	ND	U	0.071	ND	U	0.099	ND	U	0.52
ENGWESA005 FD	6/23/2015 10:50:00 AM	UG/M3	ND	U	0.27	0.19		0.08	ND	U	0.078	ND	U	0.071	ND	U	0.099	ND	U	0.52
ENGWESA005	7/8/15 3:33 PM	UG/M3	0.29		0.23	0.2		0.068	ND	U	0.067	ND	U	0.061	0.1		0.085	ND	U	0.45
ENGWESA005	7/22/15 11:04 AM	UG/M3	0.28		0.25	0.25		0.075	ND	U	0.074	ND	U	0.067	0.1		0.093	ND	U	0.49
ENGWESA005	8/5/15 9:30 AM	UG/M3	0.27		0.25	0.32		0.074	ND	U	0.073	0.077		0.066	0.13		0.092	ND	U	0.49
ENGWESA005 FD	8/5/15 9:30 AM	UG/M3	0.26		0.25	0.3		0.074	ND	U	0.073	ND	U	0.066	0.12		0.092	ND	U	0.49
ENGWESA005	8/19/15 10:00 AM	UG/M3	0.33		0.25	0.33		0.074	ND	U	0.073	ND	U	0.066	ND	U	0.092	ND	U	0.48
ENGWESA005	9/2/15 10:15 AM	UG/M3	0.3		0.25	0.34		0.074	ND	U	0.073	0.076		0.066	0.11		0.092	ND	U	0.48
ENGWESA005	9/16/15 1:07 PM	UG/M3	0.42		0.24	0.39		0.073	ND	U	0.072	0.069		0.066	0.097		0.091	ND	U	0.48
ENGWESA005	9/30/15 10:11 AM	UG/M3	0.39		0.25	0.31		0.075	ND	U	0.074	0.1		0.067	0.14		0.093	ND	U	0.49
ENGWESA005	10/14/15 3:25 PM	UG/M3	0.26		0.24	0.29		0.073	ND	U	0.072	0.07		0.065	0.098		0.09	ND	U	0.48
ENGWESA005 FD	10/14/15 3:25 PM	UG/M3	0.24		0.24	0.26		0.073	ND	U	0.072	ND	U	0.065	0.093		0.09	ND	U	0.48
ENGWESA005	10/27/15 3:10 PM	UG/M3	0.4		0.27	0.28		0.08	ND	U	0.079	0.083		0.071	0.14		0.099	ND	U	0.52
ENGWESA005	11/9/15 10:22 AM	UG/M3	0.43		0.27	0.3	J+	0.081	ND	U	0.08	0.078		0.072	0.12		0.1	ND	U	0.53
ENGWESA005	11/25/15 11:45 AM	UG/M3	0.47		0.22	0.35		0.064	ND	U	0.064	0.069		0.058	0.15		0.08	ND	U	0.42
ENGWESA005	12/8/15 11:22 AM	UG/M3	0.52		0.27	0.34		0.08	ND	U	0.079	0.074		0.071	0.14		0.099	ND	UJ-	0.52
ENGWESA005	12/23/15 9:38 AM	UG/M3	0.43		0.23	0.33		0.069	ND	U	0.068	ND	U	0.062	0.14		0.086	ND	UJ-	0.46
ENGWESA005	1/8/16 1:00 PM	UG/M3	0.41		0.22	0.32		0.064	ND	U	0.063	ND	U	0.057	0.094		0.08	ND	UJ-	0.42
ENGWESA005 FD	1/8/16 1:00 PM	UG/M3	0.3		0.22	0.31		0.064	ND	U	0.063	ND	U	0.057	ND	U	0.08	ND	UJ-	0.42
ENGWESA005	1/20/16 11:14 AM	UG/M3	0.46		0.29	0.31		0.087	ND	U	0.086	ND	U	0.078	0.12		0.11	ND	U	0.57

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Benzene			Carbon Tetrachloride			Chlorobenzene			Chloroform			Cyclohexane			Ethanol		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA007	5/13/2015 11:25:00 AM	UG/M3	0.31		0.29	0.35		0.086	ND	U	0.085	ND	U	0.077	ND	U	0.11	ND	UJ-	0.57
ENGWESA007	5/27/2015 12:32:00 PM	UG/M3	ND	U	0.25	0.28		0.074	ND	U	0.073	ND	U	0.066	ND	U	0.092	ND	U	0.48
ENGWESA007	6/10/2015 10:03:00 AM	UG/M3	ND	U	0.25	0.27		0.074	ND	U	0.073	ND	U	0.067	0.11		0.092	ND	U	0.49
ENGWESA007	6/23/2015 10:05:00 AM	UG/M3	ND	U	0.27	0.24		0.08	ND	U	0.078	ND	U	0.071	0.12		0.099	ND	U	0.52
ENGWESA007	7/8/15 3:33 PM	UG/M3	0.32		0.23	0.22		0.068	ND	U	0.067	ND	U	0.061	0.094		0.084	ND	U	0.45
ENGWESA007 FD	7/8/15 3:33 PM	UG/M3	0.3		0.25	0.31		0.075	ND	U	0.074	ND	U	0.067	0.12		0.093	ND	U	0.49
ENGWESA007	7/22/15 10:40 AM	UG/M3	0.26		0.25	0.26		0.075	ND	U	0.074	ND	U	0.067	0.13		0.093	ND	U	0.49
ENGWESA007	7/22/15 10:40 AM	UG/M3	0.37		0.23	0.25		0.068	ND	U	0.067	ND	U	0.061	ND	U	0.085	ND	U	0.45
ENGWESA007	8/5/15 9:29 AM	UG/M3	0.26		0.25	0.28		0.074	ND	U	0.073	0.072		0.066	0.15		0.092	ND	U	0.49
ENGWESA007	8/19/15 7:45 PM	UG/M3	0.27		0.25	0.3		0.074	ND	U	0.073	ND	U	0.066	0.11		0.092	ND	U	0.48
ENGWESA007	9/2/15 10:05 AM	UG/M3	0.35		0.25	0.34		0.074	ND	U	0.073	ND	U	0.066	0.14		0.092	ND	U	0.48
ENGWESA007	9/16/15 1:22 PM	UG/M3	0.28		0.24	0.28	J	0.073	ND	U	0.072	ND	U	0.066	0.1		0.091	ND	U	0.48
ENGWESA007 FD	9/16/15 1:22 PM	UG/M3	0.39		0.24	0.47	J	0.073	ND	U	0.072	0.072		0.066	0.13		0.091	ND	U	0.48
ENGWESA007	9/30/15 10:19 AM	UG/M3	0.42		0.25	0.41		0.075	ND	U	0.074	0.11		0.067	0.15		0.093	ND	U	0.49
ENGWESA007	10/14/15 3:00 PM	UG/M3	0.3		0.24	0.3		0.073	ND	U	0.072	ND	U	0.065	0.11		0.091	ND	U	0.48
ENGWESA007	10/27/15 3:00 PM	UG/M3	0.41		0.27	0.26		0.08	ND	U	0.078	0.077		0.071	0.14		0.099	ND	U	0.52
ENGWESA007	11/9/15 10:00 AM	UG/M3	0.42		0.27	0.34	J+	0.081	ND	U	0.08	ND	U	0.072	0.14		0.1	ND	U	0.53
ENGWESA007	11/25/15 12:26 PM	UG/M3	0.53		0.22	0.36		0.064	ND	U	0.063	0.065		0.058	0.2		0.08	ND	U	0.42
ENGWESA007	12/8/15 11:07 AM	UG/M3	0.57		0.27	0.38		0.08	ND	U	0.079	ND	U	0.072	0.16		0.099	ND	UJ-	0.52
ENGWESA007 FD	12/8/15 11:07 AM	UG/M3	0.55		0.27	0.34		0.08	ND	U	0.079	0.078		0.072	0.16		0.099	ND	UJ-	0.52
ENGWESA007	12/23/15 9:43 AM	UG/M3	0.39		0.23	0.37		0.069	ND	U	0.068	0.069		0.062	0.13		0.086	ND	UJ-	0.46
ENGWESA007	1/8/16 1:12 PM	UG/M3	0.46		0.22	0.32		0.064	ND	U	0.063	0.076		0.057	0.085		0.08	ND	UJ-	0.42
ENGWESA007	1/20/16 11:06 AM	UG/M3	0.5		0.29	0.33		0.087	ND	U	0.086	ND	U	0.078	0.14		0.11	ND	U	0.57
ENGWESA007 FD	1/20/16 11:06 AM	UG/M3	0.46		0.29	0.31		0.087	ND	U	0.086	ND	U	0.078	0.14		0.11	ND	U	0.57

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Benzene			Carbon Tetrachloride			Chlorobenzene			Chloroform			Cyclohexane			Ethanol		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA008	5/13/2015 12:05:00 PM	UG/M3	0.33		0.29	0.38		0.087	ND	U	0.086	ND	U	0.078	ND	U	0.11	ND	UJ-	0.57
ENGWESA008	5/27/2015 4:00:00 PM	UG/M3	ND	U	0.24	0.28		0.073	ND	U	0.072	ND	U	0.065	ND	U	0.091	ND	U	0.48
ENGWESA008 FD	5/27/2015 4:00:00 PM	UG/M3	ND	U	0.24	0.27		0.073	ND	U	0.072	ND	U	0.065	ND	U	0.091	ND	U	0.48
ENGWESA008	6/10/2015 10:40:00 AM	UG/M3	ND	U	0.25	0.28		0.075	ND	U	0.074	0.085		0.067	ND	U	0.093	ND	U	0.49
ENGWESA008	6/23/2015 11:45:00 AM	UG/M3	ND	U	0.27	0.22		0.079	ND	U	0.078	ND	U	0.071	ND	U	0.099	ND	U	0.52
ENGWESA008	07/22/2015 11:29	UG/M3	0.27		0.25	0.29		0.075	ND	U	0.074	ND	U	0.067	0.1		0.093	ND	U	0.49
ENGWESA008	8/5/15 9:36 AM	UG/M3	0.32		0.25	0.32		0.074	ND	U	0.073	0.078		0.066	ND	U	0.092	ND	U	0.49
ENGWESA008	8/19/15 10:18 AM	UG/M3	0.26		0.25	0.28		0.074	ND	U	0.073	ND	U	0.066	ND	U	0.092	ND	U	0.48
ENGWESA008 FD	8/19/15 10:18 AM	UG/M3	0.26		0.25	0.23		0.074	ND	U	0.073	ND	U	0.066	ND	U	0.092	ND	U	0.48
ENGWESA008	9/2/15 10:26 AM	UG/M3	0.31		0.25	0.32		0.074	ND	U	0.073	ND	U	0.066	ND	U	0.092	ND	U	0.49
ENGWESA008	9/16/15 12:51 PM	UG/M3	0.29		0.25	0.35		0.074	ND	U	0.072	ND	U	0.066	ND	U	0.091	ND	U	0.48
ENGWESA008	9/30/15 10:04 AM	UG/M3	0.32		0.25	0.27		0.075	ND	U	0.074	0.086		0.067	0.11		0.093	ND	U	0.49
ENGWESA008	10/14/15 4:24 PM	UG/M3	0.28		0.24	0.31		0.073	ND	U	0.072	0.073		0.065	ND	U	0.09	ND	U	0.48
ENGWESA008	10/27/15 3:19 PM	UG/M3	0.48		0.27	0.33		0.08	ND	U	0.079	0.079		0.071	0.15		0.099	ND	U	0.52
ENGWESA008 FD	10/27/15 3:19 PM	UG/M3	0.42		0.27	0.29		0.08	ND	U	0.079	0.082		0.071	0.12		0.099	ND	U	0.52
ENGWESA008	11/9/15 10:39 AM	UG/M3	0.43		0.27	0.29	J+	0.081	ND	U	0.08	0.076		0.072	0.12		0.1	ND	U	0.53
ENGWESA008	11/25/15 12:07 PM	UG/M3	0.48		0.22	0.33		0.064	ND	U	0.064	0.062		0.058	0.16		0.08	ND	U	0.42
ENGWESA008	12/8/15 11:45 AM	UG/M3	0.59		0.27	0.4		0.08	ND	U	0.079	ND	U	0.071	0.14		0.099	ND	UJ-	0.52
ENGWESA008	12/23/15 9:30 AM	UG/M3	0.39		0.23	0.31		0.07	ND	U	0.068	ND	U	0.062	0.13		0.086	ND	UJ-	0.46
ENGWESA008	1/7/16 11:12 AM	UG/M3	0.41		0.23	0.3		0.069	ND	U	0.068	ND	U	0.061	ND	U	0.085	ND	UJ-	0.45
ENGWESA008	1/20/16 11:28 AM	UG/M3	0.45		0.27	0.31		0.08	ND	U	0.078	ND	U	0.071	0.11		0.099	ND	U	0.52

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Benzene			Carbon Tetrachloride			Chlorobenzene			Chloroform			Cyclohexane			Ethanol		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA011	5/13/2015 11:45:00 AM	UG/M3	0.3		0.28	0.34		0.085	ND	U	0.084	ND	U	0.076	ND	U	0.1	ND	UJ-	0.56
ENGWESA011 FD	5/13/2015 11:45:00 AM	UG/M3	0.31		0.28	0.35		0.085	ND	U	0.084	ND	U	0.076	ND	U	0.1	ND	UJ-	0.56
ENGWESA011	5/27/2015 10:30:00 AM	UG/M3	ND	U	0.25	0.26		0.074	ND	U	0.073	ND	U	0.066	ND	U	0.092	ND	U	0.49
ENGWESA011	6/10/2015 11:23:00 AM	UG/M3	ND	U	0.25	0.27		0.074	ND	U	0.073	ND	U	0.066	ND	U	0.092	ND	U	0.48
ENGWESA011	6/23/2015 12:00:00 PM	UG/M3	ND	U	0.27	0.19		0.08	ND	U	0.078	ND	U	0.071	ND	U	0.099	ND	U	0.52
ENGWESA011	07/08/2015 14:44	UG/M3	0.29		0.23	0.21		0.068	ND	U	0.068	ND	U	0.061	ND	U	0.085	ND	U	0.45
ENGWESA011 FD	07/08/2015 14:44	UG/M3	0.29		0.23	0.19		0.068	ND	U	0.068	ND	U	0.061	ND	U	0.085	ND	U	0.45
ENGWESA011	07/22/2015 07:40	UG/M3	ND	U	0.25	0.25		0.076	ND	U	0.074	ND	U	0.068	ND	U	0.094	ND	U	0.5
ENGWESA011	8/5/15 9:43 AM	UG/M3	0.29		0.25	0.32		0.074	ND	U	0.072	0.067		0.066	0.1		0.091	ND	U	0.48
ENGWESA011	8/19/15 10:36 AM	UG/M3	0.43		0.25	0.27		0.074	ND	U	0.073	ND	U	0.066	0.12		0.092	ND	U	0.48
ENGWESA011	9/2/15 10:33 AM	UG/M3	0.28		0.25	0.26		0.074	ND	U	0.073	ND	U	0.066	ND	U	0.092	ND	U	0.49
ENGWESA011	9/16/15 1:37 PM	UG/M3	0.32		0.24	0.32		0.073	ND	U	0.072	ND	U	0.066	0.12		0.091	ND	U	0.48
ENGWESA011	9/30/15 10:28 AM	UG/M3	0.39		0.25	0.32		0.075	ND	U	0.074	0.097		0.067	0.15		0.093	ND	U	0.49
ENGWESA011 FD	9/30/15 10:28 AM	UG/M3	0.45		0.25	0.38		0.075	ND	U	0.074	0.12		0.067	0.1		0.093	ND	U	0.49
ENGWESA011	10/14/15 2:30 PM	UG/M3	0.28		0.24	0.28		0.073	ND	U	0.072	ND	U	0.065	ND	U	0.091	ND	U	0.48
ENGWESA011	10/27/15 3:47 PM	UG/M3	0.48		0.27	0.29		0.079	ND	U	0.078	ND	U	0.071	0.13		0.098	ND	U	0.52
ENGWESA012	11/9/15 8:43 AM	UG/M3	0.46		0.27	0.34	J+	0.082	ND	U	0.08	0.074		0.073	0.12		0.1	ND	U	0.54
ENGWESA012 FD	11/9/15 8:43 AM	UG/M3	0.45		0.27	0.31	J+	0.082	ND	U	0.08	ND	U	0.073	0.13		0.1	ND	U	0.54
ENGWESA012	11/25/15 12:16 PM	UG/M3	0.52		0.22	0.33		0.064	ND	U	0.063	0.066		0.057	0.17		0.08	ND	U	0.42
ENGWESA012	12/8/15 10:20 AM	UG/M3	0.64		0.27	0.38		0.08	ND	U	0.079	0.089		0.072	0.15		0.1	ND	UJ-	0.53
ENGWESA012	12/23/15 10:06 AM	UG/M3	0.42		0.23	0.42		0.069	ND	U	0.068	0.078		0.062	0.11		0.086	ND	UJ-	0.45
ENGWESA012	1/7/16 10:56 AM	UG/M3	0.4		0.23	0.29		0.069	ND	U	0.068	ND	U	0.062	0.09		0.086	ND	UJ-	0.45
ENGWESA012	1/20/16 11:40 AM	UG/M3	0.48		0.27	0.31		0.08	ND	U	0.078	ND	U	0.071	0.12		0.099	ND	U	0.52

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Ethyl Acetate			Ethyl Benzene			Heptane			Hexane			m,p-Xylene			Methyl tert-butyl ether		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA001	5/13/2015 11:05:00 AM	UG/M3	ND	U	0.3	ND	U	0.086	0.18		0.1	0.16		0.088	0.21		0.083	ND	U	0.089
ENGWESA001	5/27/2015 4:33:00 PM	UG/M3	ND	U	0.25	0.076		0.072	0.22		0.084	0.13		0.074	0.23		0.07	ND	U	0.075
ENGWESA001	6/10/2015 11:01:00 AM	UG/M3	ND	U	0.26	0.083		0.074	0.26		0.087	0.21		0.076	0.25		0.072	ND	U	0.078
ENGWESA001 FD	6/10/2015 11:08:00 AM	UG/M3	ND	U	0.26	ND	U	0.074	0.24		0.087	0.21		0.076	0.2		0.072	ND	U	0.078
ENGWESA001	6/24/2015 12:00:00 PM	UG/M3	ND	U	0.25	0.085		0.073	0.19		0.085	0.27		0.075	0.28		0.071	ND	U	0.076
ENGWESA001	7/8/15 3:33 PM	UG/M3	ND	U	0.25	0.088		0.072	0.28		0.084	0.34		0.074	0.25		0.07	ND	U	0.075
ENGWESA001	7/22/15 2:24 PM	UG/M3	ND	U	0.26	0.096		0.073	0.42		0.086	0.68		0.075	0.3		0.071	ND	U	0.076
ENGWESA001	8/5/15 9:17 AM	UG/M3	ND	U	0.26	0.1		0.074	0.28		0.087	0.49		0.076	0.31		0.072	ND	U	0.078
ENGWESA001	8/19/15 11:15 AM	UG/M3	ND	U	0.25	0.099		0.072	0.24	J+	0.085	0.47		0.075	0.3		0.07	ND	U	0.076
ENGWESA001	9/2/15 9:50 AM	UG/M3	ND	U	0.26	0.13		0.073	0.31		0.086	0.42	J+	0.075	0.37		0.071	ND	U	0.077
ENGWESA001 FD	9/2/15 9:50 AM	UG/M3	ND	U	0.26	0.12		0.073	0.27		0.086	0.33	J+	0.075	0.32		0.071	ND	U	0.077
ENGWESA001	9/16/15 11:18 AM	UG/M3	ND	U	0.25	0.092		0.073	0.26		0.085	0.55		0.075	0.3		0.07	ND	U	0.076
ENGWESA001	9/30/15 12:03 PM	UG/M3	0.33		0.25	0.12		0.073	0.61	J+	0.085	0.52	J+	0.075	0.39		0.071	ND	U	0.076
ENGWESA001	10/14/15 1:56 PM	UG/M3	ND	U	0.25	0.082		0.072	0.26		0.085	0.2		0.075	0.23		0.07	ND	U	0.076
ENGWESA001	10/27/15 3:33 PM	UG/M3	ND	U	0.27	0.11		0.078	0.32		0.092	0.36		0.08	0.31		0.076	ND	U	0.082
ENGWESA001	11/9/15 11:28 AM	UG/M3	ND	U	0.28	0.15		0.08	0.35		0.093	0.5		0.082	0.4		0.077	ND	U	0.083
ENGWESA001	11/25/15 11:55 AM	UG/M3	ND	U	0.22	0.22		0.064	0.36		0.075	0.48		0.066	0.83		0.062	ND	U	0.067
ENGWESA001 FD	11/25/15 11:55 AM	UG/M3	ND	U	0.22	0.2		0.064	0.37		0.075	0.55		0.066	0.74		0.062	ND	U	0.067
ENGWESA001	12/8/15 12:20 PM	UG/M3	ND	U	0.27	0.25		0.078	0.44		0.092	0.57		0.081	0.87		0.076	ND	U	0.082
ENGWESA001	12/23/15 9:15 AM	UG/M3	ND	U	0.24	0.12		0.069	0.48		0.08	0.36	J-	0.071	0.31		0.067	ND	U	0.072
ENGWESA001 FD	12/23/15 9:15 AM	UG/M3	ND	U	0.24	0.11		0.069	0.45		0.08	0.39	J-	0.071	0.28		0.067	ND	U	0.072
ENGWESA001	1/7/16 1:56 PM	UG/M3	ND	U	0.23	0.083		0.067	0.31		0.079	0.41	J-	0.069	0.2		0.065	ND	U	0.07
ENGWESA001	1/20/16 11:58 AM	UG/M3	ND	U	0.28	0.1		0.079	0.3		0.093	0.23		0.081	0.26		0.077	ND	U	0.083

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Ethyl Acetate			Ethyl Benzene			Heptane			Hexane			m,p-Xylene			Methyl tert-butyl ether		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA005	5/13/2015 11:35:00 AM	UG/M3	ND	U	0.3	0.094		0.085	0.21		0.1	0.22		0.088	0.27		0.083	ND	U	0.089
ENGWESA005	5/27/2015 3:14:00 PM	UG/M3	ND	U	0.25	0.079		0.072	0.13		0.085	0.15		0.074	0.22		0.07	ND	U	0.075
ENGWESA005	6/10/2015 10:13:00 AM	UG/M3	ND	U	0.26	0.1		0.074	0.17		0.087	0.33		0.076	0.3		0.072	ND	U	0.077
ENGWESA005	6/23/2015 10:50:00 AM	UG/M3	ND	U	0.27	0.097		0.078	0.17	0	0.092	0.23		0.081	0.28		0.076	ND	U	0.082
ENGWESA005 FD	6/23/2015 10:50:00 AM	UG/M3	ND	U	0.27	0.081		0.078	0.14		0.092	0.25		0.081	0.24		0.076	ND	U	0.082
ENGWESA005	7/8/15 3:33 PM	UG/M3	ND	U	0.23	0.14		0.067	0.19		0.079	2		0.069	0.38		0.065	ND	U	0.07
ENGWESA005	7/22/15 11:04 AM	UG/M3	ND	U	0.26	0.1		0.074	0.2		0.086	0.84		0.076	0.32		0.072	ND	U	0.077
ENGWESA005	8/5/15 9:30 AM	UG/M3	0.28		0.26	0.14		0.073	0.21		0.086	0.32		0.076	0.42		0.071	ND	U	0.077
ENGWESA005 FD	8/5/15 9:30 AM	UG/M3	0.27		0.26	0.12		0.073	0.19		0.086	0.34		0.076	0.36		0.071	ND	U	0.077
ENGWESA005	8/19/15 10:00 AM	UG/M3	ND	U	0.25	0.12		0.073	0.22	J+	0.085	0.45		0.075	0.37		0.071	ND	U	0.076
ENGWESA005	9/2/15 10:15 AM	UG/M3	ND	U	0.25	0.14		0.073	0.25		0.085	0.51	J+	0.075	0.39		0.071	ND	U	0.076
ENGWESA005	9/16/15 1:07 PM	UG/M3	0.28		0.25	0.11		0.072	0.24		0.085	0.6		0.074	0.35		0.07	ND	U	0.076
ENGWESA005	9/30/15 10:11 AM	UG/M3	ND	U	0.26	0.13		0.074	0.34	J+	0.086	0.66	J+	0.076	0.45		0.071	ND	U	0.077
ENGWESA005	10/14/15 3:25 PM	UG/M3	0.35		0.25	0.091		0.072	0.22		0.084	0.29		0.074	0.26		0.07	ND	U	0.075
ENGWESA005 FD	10/14/15 3:25 PM	UG/M3	0.34		0.25	0.083		0.072	0.2		0.084	0.21		0.074	0.23		0.07	ND	U	0.075
ENGWESA005	10/27/15 3:10 PM	UG/M3	0.28		0.27	0.13		0.079	0.25		0.092	0.32		0.081	0.37		0.076	ND	U	0.082
ENGWESA005	11/9/15 10:22 AM	UG/M3	ND	U	0.28	0.13		0.08	0.24		0.094	0.49		0.082	0.35		0.078	ND	U	0.083
ENGWESA005	11/25/15 11:45 AM	UG/M3	ND	U	0.22	0.17		0.064	0.33		0.074	0.66		0.066	0.48		0.062	ND	U	0.066
ENGWESA005	12/8/15 11:22 AM	UG/M3	ND	U	0.27	0.12		0.079	0.24		0.092	0.5		0.081	0.34		0.076	ND	U	0.082
ENGWESA005	12/23/15 9:38 AM	UG/M3	ND	U	0.24	0.11		0.068	0.27		0.08	0.36	J-	0.07	0.28		0.066	ND	U	0.072
ENGWESA005	1/8/16 1:00 PM	UG/M3	ND	U	0.22	0.075		0.063	0.18		0.074	0.28	J-	0.065	0.17		0.061	ND	U	0.066
ENGWESA005 FD	1/8/16 1:00 PM	UG/M3	ND	U	0.22	0.071		0.063	0.14		0.074	0.28	J-	0.065	0.16		0.061	ND	U	0.066
ENGWESA005	1/20/16 11:14 AM	UG/M3	ND	U	0.3	0.096		0.086	0.18		0.1	0.23		0.088	0.26		0.083	ND	U	0.09

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Ethyl Acetate			Ethyl Benzene			Heptane			Hexane			m,p-Xylene			Methyl tert-butyl ether		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA007	5/13/2015 11:25:00 AM	UG/M3	0.41		0.3	0.14		0.085	0.25		0.1	0.35		0.088	0.42		0.083	ND	U	0.089
ENGWESA007	5/27/2015 12:32:00 PM	UG/M3	0.31		0.25	0.093		0.073	0.15		0.085	0.31		0.075	0.27		0.071	ND	U	0.076
ENGWESA007	6/10/2015 10:03:00 AM	UG/M3	0.35		0.26	0.14		0.073	0.22		0.086	0.41		0.076	0.43		0.071	ND	U	0.077
ENGWESA007	6/23/2015 10:05:00 AM	UG/M3	0.51		0.27	0.17		0.078	0.25		0.092	0.33		0.081	0.52		0.076	ND	U	0.082
ENGWESA007	7/8/15 3:33 PM	UG/M3	0.29		0.23	0.13		0.067	0.24		0.079	0.27		0.069	0.38		0.065	ND	U	0.07
ENGWESA007 FD	7/8/15 3:33 PM	UG/M3	0.49		0.26	0.12		0.074	0.24		0.086	0.48	J	0.076	0.37		0.072	ND	U	0.077
ENGWESA007	7/22/15 10:40 AM	UG/M3	0.41		0.26	0.12		0.074	0.21		0.087	0.31	J	0.076	0.36		0.072	ND	U	0.077
ENGWESA007	7/22/15 10:40 AM	UG/M3	ND	U	0.24	0.14		0.067	0.23		0.079	0.29		0.069	0.37		0.065	ND	U	0.07
ENGWESA007	8/5/15 9:29 AM	UG/M3	0.39		0.26	0.16		0.073	0.28		0.086	0.43		0.075	0.45		0.071	ND	U	0.077
ENGWESA007	8/19/15 7:45 PM	UG/M3	0.35		0.25	0.12		0.073	0.22	J+	0.085	0.55		0.075	0.41		0.071	ND	U	0.076
ENGWESA007	9/2/15 10:05 AM	UG/M3	0.45		0.25	0.16		0.073	0.28		0.085	0.62	J+	0.075	0.46		0.071	ND	U	0.076
ENGWESA007	9/16/15 1:22 PM	UG/M3	0.34		0.25	0.12		0.072	0.26		0.085	0.44		0.074	0.41		0.07	ND	U	0.076
ENGWESA007 FD	9/16/15 1:22 PM	UG/M3	0.49		0.25	0.15		0.072	0.27		0.085	0.45		0.074	0.51		0.07	ND	U	0.076
ENGWESA007	9/30/15 10:19 AM	UG/M3	0.43		0.26	0.17		0.074	0.35	J+	0.086	0.64	J+	0.076	0.58		0.072	ND	U	0.077
ENGWESA007	10/14/15 3:00 PM	UG/M3	0.39		0.25	0.12		0.072	0.23		0.084	0.3		0.074	0.34		0.07	ND	U	0.075
ENGWESA007	10/27/15 3:00 PM	UG/M3	0.43		0.27	0.16		0.078	0.29		0.092	0.37		0.081	0.47		0.076	ND	U	0.082
ENGWESA007	11/9/15 10:00 AM	UG/M3	ND	U	0.28	0.16		0.08	0.29		0.094	0.57		0.082	0.4		0.078	ND	U	0.084
ENGWESA007	11/25/15 12:26 PM	UG/M3	0.27		0.22	0.18		0.063	0.34		0.074	0.61		0.065	0.5		0.062	ND	U	0.066
ENGWESA007	12/8/15 11:07 AM	UG/M3	ND	U	0.28	0.14		0.079	0.29		0.092	0.62		0.081	0.42		0.077	ND	U	0.082
ENGWESA007 FD	12/8/15 11:07 AM	UG/M3	ND	U	0.28	0.14		0.079	0.26		0.092	0.62		0.081	0.41		0.077	ND	U	0.082
ENGWESA007	12/23/15 9:43 AM	UG/M3	ND	U	0.24	0.13		0.068	0.27		0.08	0.64	J-	0.07	0.34		0.066	ND	U	0.072
ENGWESA007	1/8/16 1:12 PM	UG/M3	ND	U	0.22	0.067		0.063	0.16		0.074	0.22	J-	0.065	0.15		0.061	ND	U	0.066
ENGWESA007	1/20/16 11:06 AM	UG/M3	ND	U	0.3	0.11		0.086	0.21		0.1	0.4		0.088	0.27		0.083	ND	U	0.09
ENGWESA007 FD	1/20/16 11:06 AM	UG/M3	ND	U	0.3	0.11		0.086	0.22		0.1	0.28		0.088	0.28		0.083	ND	U	0.09

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Ethyl Acetate			Ethyl Benzene			Heptane			Hexane			m,p-Xylene			Methyl tert-butyl ether		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA008	5/13/2015 12:05:00 PM	UG/M3	ND	U	0.3	0.088		0.086	0.23		0.1	0.3		0.088	0.26		0.083	ND	U	0.09
ENGWESA008	5/27/2015 4:00:00 PM	UG/M3	ND	U	0.25	0.074		0.072	0.12		0.084	0.19		0.074	0.22		0.07	ND	U	0.075
ENGWESA008 FD	5/27/2015 4:00:00 PM	UG/M3	ND	U	0.25	0.073		0.072	0.11		0.084	0.21		0.074	0.2		0.07	ND	U	0.075
ENGWESA008	6/10/2015 10:40:00 AM	UG/M3	ND	U	0.26	0.11		0.074	0.19		0.087	0.3		0.076	0.36		0.072	ND	U	0.078
ENGWESA008	6/23/2015 11:45:00 AM	UG/M3	ND	U	0.27	0.08		0.078	0.13		0.092	0.27		0.081	0.22		0.076	ND	U	0.082
ENGWESA008	07/22/2015 11:29	UG/M3	ND	U	0.26	0.094		0.074	0.18		0.086	0.34		0.076	0.29		0.072	ND	U	0.077
ENGWESA008	8/5/15 9:36 AM	UG/M3	ND	U	0.26	0.12		0.073	0.2		0.086	0.27		0.076	0.36		0.071	ND	U	0.077
ENGWESA008	8/19/15 10:18 AM	UG/M3	ND	U	0.25	0.11		0.073	0.2	J+	0.085	0.43		0.075	0.37		0.071	ND	U	0.076
ENGWESA008 FD	8/19/15 10:18 AM	UG/M3	ND	U	0.25	0.11		0.073	0.24	J+	0.085	0.42		0.075	0.34		0.071	ND	U	0.076
ENGWESA008	9/2/15 10:26 AM	UG/M3	ND	U	0.25	0.12		0.073	0.19		0.085	0.4	J+	0.075	0.34		0.071	ND	U	0.076
ENGWESA008	9/16/15 12:51 PM	UG/M3	ND	U	0.25	0.096		0.072	0.18		0.085	0.48		0.075	0.32		0.07	ND	U	0.076
ENGWESA008	9/30/15 10:04 AM	UG/M3	ND	U	0.26	0.11		0.074	0.29	J+	0.086	0.43	J+	0.076	0.38		0.071	ND	U	0.077
ENGWESA008	10/14/15 4:24 PM	UG/M3	0.25		0.25	0.085		0.072	0.2		0.084	0.29		0.074	0.23		0.07	ND	U	0.075
ENGWESA008	10/27/15 3:19 PM	UG/M3	ND	U	0.27	0.14		0.079	0.26		0.092	0.3		0.081	0.38		0.076	ND	U	0.082
ENGWESA008 FD	10/27/15 3:19 PM	UG/M3	ND	U	0.27	0.12		0.079	0.25		0.092	0.34		0.081	0.34		0.076	ND	U	0.082
ENGWESA008	11/9/15 10:39 AM	UG/M3	ND	U	0.28	0.13		0.08	0.28		0.094	0.49		0.082	0.37		0.077	ND	U	0.083
ENGWESA008	11/25/15 12:07 PM	UG/M3	ND	U	0.22	0.16		0.064	0.3		0.074	0.66		0.066	0.46		0.062	ND	U	0.066
ENGWESA008	12/8/15 11:45 AM	UG/M3	ND	U	0.27	0.13		0.079	0.27		0.092	0.59		0.081	0.38		0.076	ND	U	0.082
ENGWESA008	12/23/15 9:30 AM	UG/M3	ND	U	0.24	0.099		0.068	0.25		0.08	0.38	J-	0.07	0.26		0.066	ND	U	0.072
ENGWESA008	1/7/16 11:12 AM	UG/M3	ND	U	0.24	ND	U	0.068	0.16		0.079	0.26	J-	0.07	0.15		0.066	ND	U	0.071
ENGWESA008	1/20/16 11:28 AM	UG/M3	ND	U	0.27	0.084		0.078	0.17		0.092	0.29		0.081	0.23		0.076	ND	U	0.082

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Ethyl Acetate			Ethyl Benzene			Heptane			Hexane			m,p-Xylene			Methyl tert-butyl ether		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA011	5/13/2015 11:45:00 AM	UG/M3	ND	U	0.29	0.085		0.084	0.2		0.098	0.21		0.086	0.23		0.082	ND	U	0.088
ENGWESA011 FD	5/13/2015 11:45:00 AM	UG/M3	ND	U	0.29	0.086		0.084	0.2		0.098	0.26		0.086	0.23		0.082	ND	U	0.088
ENGWESA011	5/27/2015 10:30:00 AM	UG/M3	ND	U	0.26	ND	U	0.073	0.12		0.086	0.23		0.075	0.18		0.071	ND	U	0.076
ENGWESA011	6/10/2015 11:23:00 AM	UG/M3	ND	U	0.25	0.12		0.073	0.17		0.085	0.32		0.075	0.35		0.071	ND	U	0.076
ENGWESA011	6/23/2015 12:00:00 PM	UG/M3	ND	U	0.27	0.082		0.078	0.14		0.092	0.23		0.081	0.23		0.076	ND	U	0.082
ENGWESA011	07/08/2015 14:44	UG/M3	ND	U	0.24	0.11		0.068	0.14		0.079	0.24		0.07	0.31		0.066	ND	U	0.071
ENGWESA011 FD	07/08/2015 14:44	UG/M3	ND	U	0.24	0.12		0.068	0.16		0.079	0.34		0.07	0.3		0.066	ND	U	0.071
ENGWESA011	07/22/2015 07:40	UG/M3	ND	U	0.26	0.081		0.074	0.17		0.087	0.24		0.077	0.25		0.072	ND	U	0.078
ENGWESA011	8/5/15 9:43 AM	UG/M3	ND	U	0.25	0.11		0.072	0.18		0.085	0.38		0.075	0.35		0.07	ND	U	0.076
ENGWESA011	8/19/15 10:36 AM	UG/M3	ND	U	0.25	0.12		0.073	0.41	J+	0.085	1.2		0.075	0.37		0.071	ND	U	0.076
ENGWESA011	9/2/15 10:33 AM	UG/M3	ND	U	0.25	0.096		0.073	0.17		0.086	0.47	J+	0.075	0.26		0.071	ND	U	0.076
ENGWESA011	9/16/15 1:37 PM	UG/M3	0.25		0.25	0.11		0.072	0.23		0.085	0.46		0.074	0.34		0.07	ND	U	0.076
ENGWESA011	9/30/15 10:28 AM	UG/M3	0.26		0.26	0.15		0.074	0.35	J+	0.086	0.54	J+	0.076	0.49		0.072	ND	U	0.077
ENGWESA011 FD	9/30/15 10:28 AM	UG/M3	ND	U	0.26	0.13		0.074	0.26	J+	0.086	0.78	J+	0.076	0.41		0.072	ND	U	0.077
ENGWESA011	10/14/15 2:30 PM	UG/M3	ND	U	0.25	0.082		0.072	0.18		0.084	0.22		0.074	0.22		0.07	ND	U	0.075
ENGWESA011	10/27/15 3:47 PM	UG/M3	ND	U	0.27	0.14		0.078	0.28		0.092	0.32		0.081	0.39		0.076	ND	U	0.082
ENGWESA012	11/9/15 8:43 AM	UG/M3	ND	U	0.28	0.15		0.08	0.29		0.094	0.45		0.083	0.36		0.078	ND	U	0.084
ENGWESA012 FD	11/9/15 8:43 AM	UG/M3	ND	U	0.28	0.14		0.08	0.28		0.094	0.4		0.083	0.38		0.078	ND	U	0.084
ENGWESA012	11/25/15 12:16 PM	UG/M3	ND	U	0.22	0.16		0.063	0.32		0.074	0.58		0.065	0.44		0.061	ND	U	0.066
ENGWESA012	12/8/15 10:20 AM	UG/M3	ND	U	0.28	0.12		0.079	0.27		0.093	0.43		0.081	0.34		0.077	ND	U	0.083
ENGWESA012	12/23/15 10:06 AM	UG/M3	ND	U	0.24	0.11		0.068	0.24		0.08	0.54	J-	0.07	0.27		0.066	ND	U	0.071
ENGWESA012	1/7/16 10:56 AM	UG/M3	ND	U	0.24	ND	U	0.068	0.17		0.08	0.32	J-	0.07	0.15		0.066	ND	U	0.071
ENGWESA012	1/20/16 11:40 AM	UG/M3	ND	U	0.27	0.087		0.078	0.16		0.092	0.28		0.081	0.19		0.076	ND	U	0.082

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Naphthalene			o-Xylene			Propylbenzene			Styrene			Tetrachloroethene			Toluene		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA001	5/13/2015 11:05:00 AM	UG/M3	ND	U	0.23	ND	U	0.089	ND	U	0.1	ND	U	0.095	ND	U	0.098	0.52		0.078
ENGWESA001	5/27/2015 4:33:00 PM	UG/M3	ND	U	0.2	0.082		0.075	ND	U	0.086	ND	U	0.08	0.18		0.083	0.43		0.066
ENGWESA001	6/10/2015 11:01:00 AM	UG/M3	ND	U	0.2	0.081		0.078	ND	U	0.088	ND	U	0.083	0.14		0.085	0.59		0.068
ENGWESA001 FD	6/10/2015 11:08:00 AM	UG/M3	ND	U	0.2	ND	U	0.078	ND	U	0.088	ND	U	0.083	0.12		0.085	0.47		0.068
ENGWESA001	6/24/2015 12:00:00 PM	UG/M3	ND	U	0.2	0.077		0.076	ND	U	0.087	ND	U	0.081	0.24		0.084	0.46		0.067
ENGWESA001	7/8/15 3:33 PM	UG/M3	ND	U	0.2	0.082		0.075	ND	U	0.086	ND	U	0.08	0.24		0.083	0.55		0.066
ENGWESA001	7/22/15 2:24 PM	UG/M3	ND	U	0.2	0.09		0.076	ND	U	0.087	ND	U	0.082	0.15		0.084	0.53		0.067
ENGWESA001	8/5/15 9:17 AM	UG/M3	ND	U	0.2	0.1		0.078	ND	U	0.088	ND	U	0.082	0.28		0.085	0.7		0.068
ENGWESA001	8/19/15 11:15 AM	UG/M3	ND	U	0.2	0.095		0.076	ND	U	0.086	ND	U	0.081	0.47		0.084	0.64		0.067
ENGWESA001	9/2/15 9:50 AM	UG/M3	ND	U	0.2	0.15		0.077	ND	U	0.087	ND	U	0.082	0.2		0.084	0.82		0.067
ENGWESA001 FD	9/2/15 9:50 AM	UG/M3	ND	U	0.2	0.13		0.077	ND	U	0.087	ND	U	0.082	0.17		0.084	0.71		0.067
ENGWESA001	9/16/15 11:18 AM	UG/M3	ND	U	0.2	0.095		0.076	ND	U	0.087	ND	U	0.081	0.2		0.084	0.54		0.067
ENGWESA001	9/30/15 12:03 PM	UG/M3	ND	U	0.2	0.13		0.076	ND	U	0.087	ND	U	0.081	0.37		0.084	0.79		0.067
ENGWESA001	10/14/15 1:56 PM	UG/M3	ND	U	0.2	0.086		0.076	ND	U	0.086	ND	U	0.081	0.45		0.084	0.45		0.067
ENGWESA001	10/27/15 3:33 PM	UG/M3	ND	U	0.21	0.11		0.082	ND	U	0.093	ND	U	0.087	0.15		0.09	0.64		0.072
ENGWESA001	11/9/15 11:28 AM	UG/M3	ND	U	0.22	0.13		0.083	ND	U	0.095	ND	U	0.089	0.26		0.092	0.85		0.073
ENGWESA001	11/25/15 11:55 AM	UG/M3	ND	U	0.17	0.22		0.067	ND	U	0.076	ND	U	0.071	0.18		0.073	1.3		0.058
ENGWESA001 FD	11/25/15 11:55 AM	UG/M3	ND	U	0.17	0.2		0.067	ND	U	0.076	ND	U	0.071	0.16		0.073	1.2		0.058
ENGWESA001	12/8/15 12:20 PM	UG/M3	ND	U	0.21	0.28		0.082	ND	U	0.094	ND	U	0.087	ND	U	0.09	0.85		0.072
ENGWESA001	12/23/15 9:15 AM	UG/M3	ND	U	0.19	0.12		0.072	ND	U	0.082	ND	U	0.076	0.084		0.079	0.77		0.063
ENGWESA001 FD	12/23/15 9:15 AM	UG/M3	ND	U	0.19	0.11		0.072	ND	U	0.082	ND	U	0.076	0.079		0.079	0.72		0.063
ENGWESA001	1/7/16 1:56 PM	UG/M3	ND	U	0.18	0.074		0.07	ND	U	0.08	ND	U	0.075	0.12		0.077	0.5		0.062
ENGWESA001	1/20/16 11:58 AM	UG/M3	ND	U	0.22	0.09		0.083	ND	U	0.094	ND	U	0.088	0.17		0.091	0.61		0.073

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Naphthalene			o-Xylene			Propylbenzene			Styrene			Tetrachloroethene			Toluene		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA005	5/13/2015 11:35:00 AM	UG/M3	ND	U	0.23	ND	U	0.089	ND	U	0.1	ND	U	0.095	ND	U	0.098	0.56		0.078
ENGWESA005	5/27/2015 3:14:00 PM	UG/M3	ND	U	0.2	ND	U	0.075	ND	U	0.086	ND	U	0.08	ND	U	0.083	0.43		0.066
ENGWESA005	6/10/2015 10:13:00 AM	UG/M3	ND	U	0.2	0.092		0.077	ND	U	0.088	ND	U	0.082	ND	U	0.085	0.54		0.068
ENGWESA005	6/23/2015 10:50:00 AM	UG/M3	ND	U	0.21	0.087		0.082	ND	U	0.094	ND	U	0.087	ND	U	0.09	0.48		0.072
ENGWESA005 FD	6/23/2015 10:50:00 AM	UG/M3	ND	U	0.21	ND	U	0.082	ND	U	0.094	ND	U	0.087	ND	U	0.09	0.4		0.072
ENGWESA005	7/8/15 3:33 PM	UG/M3	ND	U	0.18	0.12		0.07	ND	U	0.08	ND	U	0.075	ND	U	0.078	19		0.062
ENGWESA005	7/22/15 11:04 AM	UG/M3	ND	U	0.2	0.099		0.077	ND	U	0.088	ND	U	0.082	0.088		0.085	0.57		0.068
ENGWESA005	8/5/15 9:30 AM	UG/M3	ND	U	0.2	0.12		0.077	ND	U	0.087	ND	U	0.082	ND	U	0.084	0.82		0.067
ENGWESA005 FD	8/5/15 9:30 AM	UG/M3	ND	U	0.2	0.11		0.077	ND	U	0.087	ND	U	0.082	ND	U	0.084	0.73		0.067
ENGWESA005	8/19/15 10:00 AM	UG/M3	ND	U	0.2	0.12		0.076	ND	U	0.087	ND	U	0.081	0.094		0.084	0.78		0.067
ENGWESA005	9/2/15 10:15 AM	UG/M3	ND	U	0.2	0.15		0.076	ND	U	0.087	ND	U	0.081	0.1		0.084	0.82		0.067
ENGWESA005	9/16/15 1:07 PM	UG/M3	ND	U	0.2	0.12		0.076	ND	U	0.086	ND	U	0.081	0.098		0.083	0.67		0.066
ENGWESA005	9/30/15 10:11 AM	UG/M3	ND	U	0.2	0.15		0.077	ND	U	0.088	ND	U	0.082	0.14		0.085	0.89		0.068
ENGWESA005	10/14/15 3:25 PM	UG/M3	ND	U	0.2	0.09		0.075	ND	U	0.086	ND	U	0.08	ND	U	0.083	0.69		0.066
ENGWESA005 FD	10/14/15 3:25 PM	UG/M3	ND	U	0.2	0.081		0.075	ND	U	0.086	ND	U	0.08	ND	U	0.083	0.64		0.066
ENGWESA005	10/27/15 3:10 PM	UG/M3	ND	U	0.21	0.13		0.082	ND	U	0.094	ND	U	0.088	0.099		0.091	0.94		0.072
ENGWESA005	11/9/15 10:22 AM	UG/M3	ND	U	0.22	0.12		0.083	ND	U	0.095	ND	U	0.089	0.13		0.092	0.76		0.073
ENGWESA005	11/25/15 11:45 AM	UG/M3	ND	U	0.17	0.15		0.066	ND	U	0.076	ND	U	0.071	0.09		0.073	0.94		0.058
ENGWESA005	12/8/15 11:22 AM	UG/M3	ND	U	0.21	0.12		0.082	ND	U	0.094	ND	U	0.088	ND	U	0.091	0.64		0.072
ENGWESA005	12/23/15 9:38 AM	UG/M3	ND	U	0.19	0.1		0.072	ND	U	0.082	ND	U	0.076	ND	U	0.079	0.64		0.063
ENGWESA005	1/8/16 1:00 PM	UG/M3	ND	U	0.17	ND	U	0.066	ND	U	0.075	ND	U	0.07	ND	U	0.073	0.45		0.058
ENGWESA005 FD	1/8/16 1:00 PM	UG/M3	ND	U	0.17	ND	U	0.066	ND	U	0.075	ND	U	0.07	ND	U	0.073	0.41		0.058
ENGWESA005	1/20/16 11:14 AM	UG/M3	ND	U	0.23	0.091		0.09	ND	U	0.1	ND	U	0.095	ND	U	0.099	0.46		0.079

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Naphthalene			o-Xylene			Propylbenzene			Styrene			Tetrachloroethene			Toluene		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA007	5/13/2015 11:25:00 AM	UG/M3	ND	U	0.23	0.13		0.089	ND	U	0.1	ND	U	0.095	ND	U	0.098	0.99		0.078
ENGWESA007	5/27/2015 12:32:00 PM	UG/M3	ND	U	0.2	0.085		0.076	ND	U	0.087	ND	U	0.081	ND	U	0.084	0.57		0.067
ENGWESA007	6/10/2015 10:03:00 AM	UG/M3	ND	U	0.2	0.14		0.077	ND	U	0.088	ND	U	0.082	0.093		0.085	0.73		0.068
ENGWESA007	6/23/2015 10:05:00 AM	UG/M3	ND	U	0.21	0.16		0.082	ND	U	0.094	ND	U	0.088	0.1		0.09	0.94		0.072
ENGWESA007	7/8/15 3:33 PM	UG/M3	ND	U	0.18	0.13		0.07	ND	U	0.08	ND	U	0.075	0.086		0.077	0.86		0.062
ENGWESA007 FD	7/8/15 3:33 PM	UG/M3	ND	U	0.2	0.11		0.077	ND	U	0.088	ND	U	0.082	0.1		0.085	0.74		0.068
ENGWESA007	7/22/15 10:40 AM	UG/M3	ND	U	0.2	0.11		0.077	ND	U	0.088	ND	U	0.082	0.1		0.085	0.73		0.068
ENGWESA007	7/22/15 10:40 AM	UG/M3	ND	U	0.18	0.12		0.07	ND	U	0.08	ND	U	0.075	ND	U	0.078	0.62		0.062
ENGWESA007	8/5/15 9:29 AM	UG/M3	ND	U	0.2	0.14		0.077	ND	U	0.087	ND	U	0.082	0.11		0.084	0.98		0.067
ENGWESA007	8/19/15 7:45 PM	UG/M3	ND	U	0.2	0.13		0.076	ND	U	0.087	ND	U	0.081	0.097		0.084	0.87		0.067
ENGWESA007	9/2/15 10:05 AM	UG/M3	ND	U	0.2	0.18		0.076	ND	U	0.087	ND	U	0.081	0.12		0.084	1		0.067
ENGWESA007	9/16/15 1:22 PM	UG/M3	ND	U	0.2	0.12		0.076	ND	U	0.086	ND	U	0.08	0.12		0.083	0.8		0.066
ENGWESA007 FD	9/16/15 1:22 PM	UG/M3	ND	U	0.2	0.16		0.076	ND	U	0.086	ND	U	0.08	0.15		0.083	0.95		0.066
ENGWESA007	9/30/15 10:19 AM	UG/M3	ND	U	0.2	0.19		0.077	ND	U	0.088	ND	U	0.082	0.17		0.085	1.2		0.068
ENGWESA007	10/14/15 3:00 PM	UG/M3	ND	U	0.2	0.11		0.075	ND	U	0.086	ND	U	0.08	ND	U	0.083	0.87		0.066
ENGWESA007	10/27/15 3:00 PM	UG/M3	ND	U	0.21	0.15		0.082	ND	U	0.094	ND	U	0.088	0.1		0.09	1		0.072
ENGWESA007	11/9/15 10:00 AM	UG/M3	ND	U	0.22	0.15		0.084	ND	U	0.095	ND	U	0.089	0.15		0.092	0.94		0.073
ENGWESA007	11/25/15 12:26 PM	UG/M3	ND	U	0.17	0.16		0.066	ND	U	0.076	ND	U	0.071	0.1		0.073	1		0.058
ENGWESA007	12/8/15 11:07 AM	UG/M3	ND	U	0.21	0.14		0.082	ND	U	0.094	ND	U	0.088	0.098		0.091	0.79		0.072
ENGWESA007 FD	12/8/15 11:07 AM	UG/M3	ND	U	0.21	0.13		0.082	ND	U	0.094	ND	U	0.088	0.097		0.091	0.79		0.072
ENGWESA007	12/23/15 9:43 AM	UG/M3	ND	U	0.18	0.13		0.072	ND	U	0.082	ND	U	0.076	0.088		0.079	0.82		0.063
ENGWESA007	1/8/16 1:12 PM	UG/M3	ND	U	0.17	ND	U	0.066	ND	U	0.075	ND	U	0.07	ND	U	0.073	0.39		0.058
ENGWESA007	1/20/16 11:06 AM	UG/M3	ND	U	0.23	0.094		0.09	ND	U	0.1	ND	U	0.096	ND	U	0.099	0.57		0.079
ENGWESA007 FD	1/20/16 11:06 AM	UG/M3	ND	U	0.23	0.096		0.09	ND	U	0.1	ND	U	0.096	ND	U	0.099	0.56		0.079

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Naphthalene			o-Xylene			Propylbenzene			Styrene			Tetrachloroethene			Toluene		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA008	5/13/2015 12:05:00 PM	UG/M3	ND	U	0.23	ND	U	0.09	ND	U	0.1	ND	U	0.096	ND	U	0.099	0.64		0.079
ENGWESA008	5/27/2015 4:00:00 PM	UG/M3	ND	U	0.2	ND	U	0.075	ND	U	0.086	ND	U	0.08	ND	U	0.083	0.34		0.066
ENGWESA008 FD	5/27/2015 4:00:00 PM	UG/M3	ND	U	0.2	ND	U	0.075	ND	U	0.086	ND	U	0.08	ND	U	0.083	0.34		0.066
ENGWESA008	6/10/2015 10:40:00 AM	UG/M3	ND	U	0.2	0.11		0.078	ND	U	0.088	ND	U	0.083	ND	U	0.085	0.48		0.068
ENGWESA008	6/23/2015 11:45:00 AM	UG/M3	ND	U	0.21	ND	U	0.082	ND	U	0.093	ND	U	0.087	ND	U	0.09	0.34		0.072
ENGWESA008	07/22/2015 11:29	UG/M3	ND	U	0.2	0.092		0.077	ND	U	0.088	ND	U	0.082	0.1		0.085	0.5		0.068
ENGWESA008	8/5/15 9:36 AM	UG/M3	ND	U	0.2	0.11		0.077	ND	U	0.088	ND	U	0.082	ND	U	0.084	0.64		0.067
ENGWESA008	8/19/15 10:18 AM	UG/M3	ND	U	0.2	0.12		0.076	ND	U	0.087	ND	U	0.081	ND	U	0.084	0.64		0.067
ENGWESA008 FD	8/19/15 10:18 AM	UG/M3	ND	U	0.2	0.11		0.076	ND	U	0.087	ND	U	0.081	ND	U	0.084	0.64		0.067
ENGWESA008	9/2/15 10:26 AM	UG/M3	ND	U	0.2	0.13		0.076	ND	U	0.087	ND	U	0.081	ND	U	0.084	0.67		0.067
ENGWESA008	9/16/15 12:51 PM	UG/M3	ND	U	0.2	0.1		0.076	ND	U	0.086	ND	U	0.081	0.1		0.083	0.59		0.066
ENGWESA008	9/30/15 10:04 AM	UG/M3	ND	U	0.2	0.13		0.077	ND	U	0.088	ND	U	0.082	0.15		0.085	0.71		0.068
ENGWESA008	10/14/15 4:24 PM	UG/M3	ND	U	0.19	0.086		0.075	ND	U	0.085	ND	U	0.08	ND	U	0.082	0.54		0.066
ENGWESA008	10/27/15 3:19 PM	UG/M3	ND	U	0.21	0.13		0.082	ND	U	0.094	ND	U	0.088	0.1		0.091	0.81		0.072
ENGWESA008 FD	10/27/15 3:19 PM	UG/M3	ND	U	0.21	0.12		0.082	ND	U	0.094	ND	U	0.088	0.094		0.091	0.77		0.072
ENGWESA008	11/9/15 10:39 AM	UG/M3	ND	U	0.22	0.12		0.083	ND	U	0.095	ND	U	0.089	0.13		0.092	0.72		0.073
ENGWESA008	11/25/15 12:07 PM	UG/M3	ND	U	0.17	0.16		0.066	ND	U	0.076	ND	U	0.071	0.08		0.073	0.86		0.058
ENGWESA008	12/8/15 11:45 AM	UG/M3	ND	U	0.21	0.13		0.082	ND	U	0.094	ND	U	0.088	ND	U	0.091	0.7		0.072
ENGWESA008	12/23/15 9:30 AM	UG/M3	ND	U	0.19	0.093		0.072	ND	U	0.082	ND	U	0.076	ND	U	0.079	0.6		0.063
ENGWESA008	1/7/16 11:12 AM	UG/M3	ND	U	0.18	ND	U	0.071	ND	U	0.081	ND	U	0.076	ND	U	0.078	0.39		0.062
ENGWESA008	1/20/16 11:28 AM	UG/M3	ND	U	0.21	ND	U	0.082	ND	U	0.094	ND	U	0.088	ND	U	0.09	0.41		0.072

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Naphthalene			o-Xylene			Propylbenzene			Styrene			Tetrachloroethene			Toluene		
			Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL	Result	Final Q	RL
ENGWESA011	5/13/2015 11:45:00 AM	UG/M3	ND	U	0.23	ND	U	0.088	ND	U	0.1	ND	U	0.094	ND	U	0.097	0.47		0.077
ENGWESA011 FD	5/13/2015 11:45:00 AM	UG/M3	ND	U	0.23	ND	U	0.088	ND	U	0.1	ND	U	0.094	ND	U	0.097	0.47		0.077
ENGWESA011	5/27/2015 10:30:00 AM	UG/M3	ND	U	0.2	ND	U	0.076	ND	U	0.087	ND	U	0.082	ND	U	0.084	0.32		0.067
ENGWESA011	6/10/2015 11:23:00 AM	UG/M3	ND	U	0.2	0.11		0.076	ND	U	0.087	ND	U	0.081	ND	U	0.084	0.54		0.067
ENGWESA011	6/23/2015 12:00:00 PM	UG/M3	ND	U	0.21	ND	U	0.082	ND	U	0.094	ND	U	0.087	ND	U	0.09	0.36		0.072
ENGWESA011	07/08/2015 14:44	UG/M3	ND	U	0.18	0.098		0.071	ND	U	0.081	ND	U	0.075	ND	U	0.078	0.58		0.062
ENGWESA011 FD	07/08/2015 14:44	UG/M3	ND	U	0.18	0.1		0.071	ND	U	0.081	ND	U	0.075	ND	U	0.078	0.62		0.062
ENGWESA011	07/22/2015 07:40	UG/M3	ND	U	0.2	ND	U	0.078	ND	U	0.089	ND	U	0.083	0.12		0.086	0.46		0.068
ENGWESA011	8/5/15 9:43 AM	UG/M3	ND	U	0.2	0.1		0.076	ND	U	0.086	ND	U	0.081	ND	U	0.084	0.7		0.067
ENGWESA011	8/19/15 10:36 AM	UG/M3	ND	U	0.2	0.11		0.076	ND	U	0.087	ND	U	0.081	ND	U	0.084	0.77		0.067
ENGWESA011	9/2/15 10:33 AM	UG/M3	ND	U	0.2	0.1		0.076	ND	U	0.087	ND	U	0.081	ND	U	0.084	0.57		0.067
ENGWESA011	9/16/15 1:37 PM	UG/M3	ND	U	0.2	0.1		0.076	ND	U	0.086	ND	U	0.08	0.1		0.083	0.67		0.066
ENGWESA011	9/30/15 10:28 AM	UG/M3	ND	U	0.2	0.17		0.077	ND	U	0.088	ND	U	0.082	0.2		0.085	0.87		0.068
ENGWESA011 FD	9/30/15 10:28 AM	UG/M3	ND	U	0.2	0.14		0.077	ND	U	0.088	ND	U	0.082	0.17		0.085	0.78		0.068
ENGWESA011	10/14/15 2:30 PM	UG/M3	ND	U	0.2	0.082		0.075	ND	U	0.086	ND	U	0.08	ND	U	0.083	0.51		0.066
ENGWESA011	10/27/15 3:47 PM	UG/M3	ND	U	0.21	0.14		0.082	ND	U	0.093	ND	U	0.087	ND	U	0.09	0.78		0.072
ENGWESA012	11/9/15 8:43 AM	UG/M3	ND	U	0.22	0.14		0.084	ND	U	0.096	ND	U	0.09	0.12		0.093	0.8		0.074
ENGWESA012 FD	11/9/15 8:43 AM	UG/M3	ND	U	0.22	0.12		0.084	ND	U	0.096	ND	U	0.09	0.12		0.093	0.74		0.074
ENGWESA012	11/25/15 12:16 PM	UG/M3	ND	U	0.17	0.15		0.066	ND	U	0.075	ND	U	0.07	0.095		0.073	0.9		0.058
ENGWESA012	12/8/15 10:20 AM	UG/M3	ND	U	0.22	0.12		0.083	ND	U	0.094	ND	U	0.088	ND	U	0.091	0.66		0.073
ENGWESA012	12/23/15 10:06 AM	UG/M3	ND	U	0.18	0.1		0.071	ND	U	0.081	ND	U	0.076	ND	U	0.078	0.63		0.063
ENGWESA012	1/7/16 10:56 AM	UG/M3	ND	U	0.18	ND	U	0.071	ND	U	0.081	ND	U	0.076	ND	U	0.078	0.4		0.062
ENGWESA012	1/20/16 11:40 AM	UG/M3	ND	U	0.21	ND	U	0.082	ND	U	0.094	ND	U	0.087	ND	U	0.09	0.43		0.072

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Trichloroethene			1,2,4-Trimethylbenzene			1,1,2,2-Tetrachloroethane		
			Result	Final Q	RL						
ENGWESA001	5/13/2015 11:05:00 AM	UG/M3	ND	U	0.084						
ENGWESA001	5/27/2015 4:33:00 PM	UG/M3	ND	U	0.071						
ENGWESA001	6/10/2015 11:01:00 AM	UG/M3	ND	U	0.073						
ENGWESA001 FD	6/10/2015 11:08:00 AM	UG/M3	ND	U	0.073						
ENGWESA001	6/24/2015 12:00:00 PM	UG/M3	ND	U	0.072						
ENGWESA001	7/8/15 3:33 PM	UG/M3	ND	U	0.071						
ENGWESA001	7/22/15 2:24 PM	UG/M3	ND	U	0.072						
ENGWESA001	8/5/15 9:17 AM	UG/M3	ND	U	0.073						
ENGWESA001	8/19/15 11:15 AM	UG/M3	ND	U	0.071						
ENGWESA001	9/2/15 9:50 AM	UG/M3	ND	U	0.072						
ENGWESA001 FD	9/2/15 9:50 AM	UG/M3	ND	U	0.072						
ENGWESA001	9/16/15 11:18 AM	UG/M3	ND	U	0.072						
ENGWESA001	9/30/15 12:03 PM	UG/M3	ND	U	0.072						
ENGWESA001	10/14/15 1:56 PM	UG/M3	ND	U	0.071						
ENGWESA001	10/27/15 3:33 PM	UG/M3	ND	U	0.077						
ENGWESA001	11/9/15 11:28 AM	UG/M3	ND	U	0.078	0.16		0.11	ND	UJ-	0.09
ENGWESA001	11/25/15 11:55 AM	UG/M3	ND	U	0.063	0.18		0.087	ND	UJ-	0.072
ENGWESA001 FD	11/25/15 11:55 AM	UG/M3	ND	U	0.063	0.18		0.087	ND	UJ-	0.072
ENGWESA001	12/8/15 12:20 PM	UG/M3	ND	U	0.077	0.15		0.11	ND	UJ-	0.089
ENGWESA001	12/23/15 9:15 AM	UG/M3	ND	U	0.068	0.13		0.093	ND	UJ-	0.078
ENGWESA001 FD	12/23/15 9:15 AM	UG/M3	ND	U	0.068	0.11		0.093	ND	UJ-	0.078
ENGWESA001	1/7/16 1:56 PM	UG/M3	ND	U	0.066	0.12		0.091	ND	U	0.076
ENGWESA001	1/20/16 11:58 AM	UG/M3	ND	U	0.078	ND	U	0.11	ND	U	0.09

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Trichloroethene			1,2,4-Trimethylbenzene			1,1,2,2-Tetrachloroethane		
			Result	Final Q	RL						
ENGWESA005	5/13/2015 11:35:00 AM	UG/M3	ND	U	0.084						
ENGWESA005	5/27/2015 3:14:00 PM	UG/M3	ND	U	0.071						
ENGWESA005	6/10/2015 10:13:00 AM	UG/M3	ND	U	0.073						
ENGWESA005	6/23/2015 10:50:00 AM	UG/M3	ND	U	0.077						
ENGWESA005 FD	6/23/2015 10:50:00 AM	UG/M3	ND	U	0.077						
ENGWESA005	7/8/15 3:33 PM	UG/M3	ND	U	0.066						
ENGWESA005	7/22/15 11:04 AM	UG/M3	ND	U	0.073						
ENGWESA005	8/5/15 9:30 AM	UG/M3	ND	U	0.072						
ENGWESA005 FD	8/5/15 9:30 AM	UG/M3	ND	U	0.072						
ENGWESA005	8/19/15 10:00 AM	UG/M3	ND	U	0.072						
ENGWESA005	9/2/15 10:15 AM	UG/M3	ND	U	0.072						
ENGWESA005	9/16/15 1:07 PM	UG/M3	ND	U	0.071						
ENGWESA005	9/30/15 10:11 AM	UG/M3	ND	U	0.072						
ENGWESA005	10/14/15 3:25 PM	UG/M3	ND	U	0.071						
ENGWESA005 FD	10/14/15 3:25 PM	UG/M3	ND	U	0.071						
ENGWESA005	10/27/15 3:10 PM	UG/M3	ND	U	0.077						
ENGWESA005	11/9/15 10:22 AM	UG/M3	ND	U	0.079	0.16		0.11	ND	UJ-	0.09
ENGWESA005	11/25/15 11:45 AM	UG/M3	ND	U	0.063	0.23		0.086	ND	UJ-	0.072
ENGWESA005	12/8/15 11:22 AM	UG/M3	ND	U	0.078	0.17		0.11	ND	UJ-	0.089
ENGWESA005	12/23/15 9:38 AM	UG/M3	ND	U	0.067	0.15		0.093	ND	UJ-	0.078
ENGWESA005	1/8/16 1:00 PM	UG/M3	ND	U	0.062	0.094		0.086	ND	U	0.072
ENGWESA005 FD	1/8/16 1:00 PM	UG/M3	ND	U	0.062	ND	U	0.086	ND	U	0.072
ENGWESA005	1/20/16 11:14 AM	UG/M3	ND	U	0.084	ND	U	0.12	ND	U	0.097

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Trichloroethene			1,2,4-Trimethylbenzene			1,1,2,2-Tetrachloroethane		
			Result	Final Q	RL						
ENGWESA007	5/13/2015 11:25:00 AM	UG/M3	ND	U	0.084						
ENGWESA007	5/27/2015 12:32:00 PM	UG/M3	ND	U	0.072						
ENGWESA007	6/10/2015 10:03:00 AM	UG/M3	ND	U	0.072						
ENGWESA007	6/23/2015 10:05:00 AM	UG/M3	ND	U	0.077						
ENGWESA007	7/8/15 3:33 PM	UG/M3	ND	U	0.066						
ENGWESA007 FD	7/8/15 3:33 PM	UG/M3	ND	U	0.073						
ENGWESA007	7/22/15 10:40 AM	UG/M3	ND	U	0.073						
ENGWESA007	7/22/15 10:40 AM	UG/M3	ND	U	0.066						
ENGWESA007	8/5/15 9:29 AM	UG/M3	ND	U	0.072						
ENGWESA007	8/19/15 7:45 PM	UG/M3	ND	U	0.072						
ENGWESA007	9/2/15 10:05 AM	UG/M3	ND	U	0.072						
ENGWESA007	9/16/15 1:22 PM	UG/M3	ND	U	0.071						
ENGWESA007 FD	9/16/15 1:22 PM	UG/M3	ND	U	0.071						
ENGWESA007	9/30/15 10:19 AM	UG/M3	ND	U	0.072						
ENGWESA007	10/14/15 3:00 PM	UG/M3	ND	U	0.071						
ENGWESA007	10/27/15 3:00 PM	UG/M3	ND	U	0.077						
ENGWESA007	11/9/15 10:00 AM	UG/M3	ND	U	0.079	0.2		0.11	ND	UJ-	0.09
ENGWESA007	11/25/15 12:26 PM	UG/M3	ND	U	0.062	0.23		0.086	ND	UJ-	0.072
ENGWESA007	12/8/15 11:07 AM	UG/M3	ND	U	0.078	0.17		0.11	ND	UJ-	0.089
ENGWESA007 FD	12/8/15 11:07 AM	UG/M3	ND	U	0.078	0.18		0.11	ND	UJ-	0.089
ENGWESA007	12/23/15 9:43 AM	UG/M3	ND	U	0.067	0.18		0.093	ND	UJ-	0.077
ENGWESA007	1/8/16 1:12 PM	UG/M3	ND	U	0.062	ND	U	0.086	ND	U	0.072
ENGWESA007	1/20/16 11:06 AM	UG/M3	ND	U	0.084	ND	U	0.12	ND	U	0.097
ENGWESA007 FD	1/20/16 11:06 AM	UG/M3	ND	U	0.084	0.12		0.12	ND	U	0.097

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Trichloroethene			1,2,4-Trimethylbenzene			1,1,2,2-Tetrachloroethane		
			Result	Final Q	RL						
ENGWESA008	5/13/2015 12:05:00 PM	UG/M3	ND	U	0.084						
ENGWESA008	5/27/2015 4:00:00 PM	UG/M3	ND	U	0.071						
ENGWESA008 FD	5/27/2015 4:00:00 PM	UG/M3	ND	U	0.071						
ENGWESA008	6/10/2015 10:40:00 AM	UG/M3	ND	U	0.073						
ENGWESA008	6/23/2015 11:45:00 AM	UG/M3	ND	U	0.077						
ENGWESA008	07/22/2015 11:29	UG/M3	ND	U	0.073						
ENGWESA008	8/5/15 9:36 AM	UG/M3	ND	U	0.072						
ENGWESA008	8/19/15 10:18 AM	UG/M3	ND	U	0.072						
ENGWESA008 FD	8/19/15 10:18 AM	UG/M3	ND	U	0.072						
ENGWESA008	9/2/15 10:26 AM	UG/M3	ND	U	0.072						
ENGWESA008	9/16/15 12:51 PM	UG/M3	ND	U	0.071						
ENGWESA008	9/30/15 10:04 AM	UG/M3	ND	U	0.072						
ENGWESA008	10/14/15 4:24 PM	UG/M3	ND	U	0.07						
ENGWESA008	10/27/15 3:19 PM	UG/M3	ND	U	0.078						
ENGWESA008 FD	10/27/15 3:19 PM	UG/M3	ND	U	0.078						
ENGWESA008	11/9/15 10:39 AM	UG/M3	ND	U	0.078	0.16		0.11	ND	UJ-	0.09
ENGWESA008	11/25/15 12:07 PM	UG/M3	ND	U	0.063	0.23		0.086	ND	UJ-	0.072
ENGWESA008	12/8/15 11:45 AM	UG/M3	ND	U	0.078	0.18		0.11	ND	UJ-	0.089
ENGWESA008	12/23/15 9:30 AM	UG/M3	ND	U	0.068	0.12		0.093	ND	UJ-	0.078
ENGWESA008	1/7/16 11:12 AM	UG/M3	ND	U	0.067	ND	U	0.092	ND	U	0.077
ENGWESA008	1/20/16 11:28 AM	UG/M3	ND	U	0.077	ND	U	0.11	ND	U	0.089

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Trichloroethene			1,2,4-Trimethylbenzene			1,1,2,2-Tetrachloroethane		
			Result	Final Q	RL						
ENGWESA011	5/13/2015 11:45:00 AM	UG/M3	ND	U	0.083						
ENGWESA011 FD	5/13/2015 11:45:00 AM	UG/M3	ND	U	0.083						
ENGWESA011	5/27/2015 10:30:00 AM	UG/M3	ND	U	0.072						
ENGWESA011	6/10/2015 11:23:00 AM	UG/M3	ND	U	0.072						
ENGWESA011	6/23/2015 12:00:00 PM	UG/M3	ND	U	0.077						
ENGWESA011	07/08/2015 14:44	UG/M3	ND	U	0.066						
ENGWESA011 FD	07/08/2015 14:44	UG/M3	ND	U	0.066						
ENGWESA011	07/22/2015 07:40	UG/M3	ND	U	0.073						
ENGWESA011	8/5/15 9:43 AM	UG/M3	ND	U	0.071						
ENGWESA011	8/19/15 10:36 AM	UG/M3	ND	U	0.072						
ENGWESA011	9/2/15 10:33 AM	UG/M3	ND	U	0.072						
ENGWESA011	9/16/15 1:37 PM	UG/M3	ND	U	0.071						
ENGWESA011	9/30/15 10:28 AM	UG/M3	ND	U	0.072						
ENGWESA011 FD	9/30/15 10:28 AM	UG/M3	ND	U	0.072						
ENGWESA011	10/14/15 2:30 PM	UG/M3	ND	U	0.071						
ENGWESA011	10/27/15 3:47 PM	UG/M3	ND	U	0.077						
ENGWESA012	11/9/15 8:43 AM	UG/M3	ND	U	0.079	0.19		0.11	ND	UJ-	0.091
ENGWESA012 FD	11/9/15 8:43 AM	UG/M3	ND	U	0.079	0.21		0.11	ND	UJ-	0.091
ENGWESA012	11/25/15 12:16 PM	UG/M3	ND	U	0.062	0.22		0.086	ND	UJ-	0.072
ENGWESA012	12/8/15 10:20 AM	UG/M3	ND	U	0.078	0.16		0.11	ND	UJ-	0.09
ENGWESA012	12/23/15 10:06 AM	UG/M3	ND	U	0.067	0.13		0.093	ND	UJ-	0.077
ENGWESA012	1/7/16 10:56 AM	UG/M3	ND	U	0.067	ND	U	0.092	ND	U	0.077
ENGWESA012	1/20/16 11:40 AM	UG/M3	ND	U	0.077	ND	U	0.11	ND	U	0.089

CLIENTSAMPID	SAMPDATETIME	UNITS (ug/m3)	Trichloroethene			1,2,4-Trimethylbenzene			1,1,2,2-Tetrachloroethane		
			Result	Final Q	RL						
ENGWESA011	5/13/2015 11:45:00 AM	UG/M3	ND	U	0.083						
ENGWESA011 FD	5/13/2015 11:45:00 AM	UG/M3	ND	U	0.083						
ENGWESA011	5/27/2015 10:30:00 AM	UG/M3	ND	U	0.072						
ENGWESA011	6/10/2015 11:23:00 AM	UG/M3	ND	U	0.072						
ENGWESA011	6/23/2015 12:00:00 PM	UG/M3	ND	U	0.077						
ENGWESA011	07/08/2015 14:44	UG/M3	ND	U	0.066						
ENGWESA011 FD	07/08/2015 14:44	UG/M3	ND	U	0.066						
ENGWESA011	07/22/2015 07:40	UG/M3	ND	U	0.073						
ENGWESA011	8/5/15 9:43 AM	UG/M3	ND	U	0.071						
ENGWESA011	8/19/15 10:36 AM	UG/M3	ND	U	0.072						
ENGWESA011	9/2/15 10:33 AM	UG/M3	ND	U	0.072						
ENGWESA011	9/16/15 1:37 PM	UG/M3	ND	U	0.071						
ENGWESA011	9/30/15 10:28 AM	UG/M3	ND	U	0.072						
ENGWESA011 FD	9/30/15 10:28 AM	UG/M3	ND	U	0.072						
ENGWESA011	10/14/15 2:30 PM	UG/M3	ND	U	0.071						
ENGWESA011	10/27/15 3:47 PM	UG/M3	ND	U	0.077						
ENGWESA012	11/9/15 8:43 AM	UG/M3	ND	U	0.079	0.19		0.11	ND	UJ-	0.091
ENGWESA012 FD	11/9/15 8:43 AM	UG/M3	ND	U	0.079	0.21		0.11	ND	UJ-	0.091
ENGWESA012	11/25/15 12:16 PM	UG/M3	ND	U	0.062	0.22		0.086	ND	UJ-	0.072
ENGWESA012	12/8/15 10:20 AM	UG/M3	ND	U	0.078	0.16		0.11	ND	UJ-	0.09
ENGWESA012	12/23/15 10:06 AM	UG/M3	ND	U	0.067	0.13		0.093	ND	UJ-	0.077
ENGWESA012	1/7/16 10:56 AM	UG/M3	ND	U	0.067	ND	U	0.092	ND	U	0.077
ENGWESA012	1/20/16 11:40 AM	UG/M3	ND	U	0.077	ND	U	0.11	ND	U	0.089

APPENDIX E

GAMMA DOSIMETRY RESULTS

Occupational Radiation Exposure Report

Accredited by the "National Institute of Standards and Technology through NVLAP for the specific scope of accreditation under lab code 100555-0"

REPORT NO: 15013 **ACCOUNT NO:** 79807 **LOCATION:** 00003LOC

DATE BADGES RECEIVED:	01/21/2016
DATE BADGES REPORTED:	FEB 17, 2016
PAGE: 1 OF: 1	
LICENSE NO:	
PURCHASE ORDER	

NOTIFICATION LEVELS

DEEP	SHALLOW	EXTREMITY

REPORT TO:
AUXIER AND ASSOCIATES INC
13570 ST CHARLES ROCK RD

BRIDGETON, MO 63044

BILL ABERNATHY

SHIP TO:
AUXIER AND ASSOCIATES INC
13570 ST CHARLES ROCK RD

BRIDGETON, MO 63044

BILL ABERNATHY

WEARER NUMBER	SLOT NUMBER	PROCESS CONTROL NUMBER	NAME (LAST) OR OTHER DESIGNATION	F I	M I	ID TYPE	SSN/ID	BIRTH DATE	SEX	BT	BR	BP	SERVICE	DOSE EQUIVALENT IN MILLIREMS FOR PERIODS INDICATED BELOW																
														MONITORING PERIOD		CURRENT					QUARTER TO DATE			YEAR TO DATE				LIFETIME TO DATE		
														FIRST DAY	LAST DAY	DEEP	EYE	SHALL.	NEUT	PROC. NOTES	DEEP	EYE	SHALL.	DEEP	EYE	SHALL.	NO. RPTS	DEEP	DOSE HISTORY ADJUSTMENT	INCEPTION DATE LIFETIME TOTAL
5		0228393	AMBIENT DETECTOR 1			1				14	WB		Q	10/15/2015	01/14/2016	36	36	36			36	36	36	89	89	89	3	89		04/01/2015
6		0228393	AMBIENT DETECTOR 2			1				14	WB		Q	10/15/2015	01/14/2016	41	43	43			41	43	43	98	100	100	3	98		04/01/2015
7		0228393	AMBIENT DETECTOR 3			1				14	WB		Q	10/15/2015	01/14/2016	34	34	34			34	34	34	88	88	89	3	88		04/01/2015
8		0228393	AMBIENT DETECTOR 4			1				14	WB		Q	10/15/2015	01/14/2016	38	38	38			38	38	38	97	97	100	3	97		04/01/2015
9		0228393	AMBIENT DETECTOR 5			1				14	WB		Q	10/15/2015	01/14/2016	32	32	34			32	32	34	84	84	86	3	84		04/01/2015
10		0228393	AMBIENT DETECTOR 6			1				14	WB		Q	10/15/2015	01/14/2016	33	33	33			33	33	33	88	88	89	3	88		04/01/2015
11		0228393	AMBIENT DETECTOR 7			1				14	WB		Q	10/15/2015	01/14/2016	35	35	35			35	35	35	96	97	97	3	96		04/01/2015
12		0228393	AMBIENT DETECTOR 8			1				14	WB		Q	10/15/2015	01/14/2016	30	30	30			30	30	30	87	87	92	3	87		04/01/2015
13		0228393	AMBIENT DETECTOR 9			1				14	WB		Q	10/15/2015	01/14/2016	34	34	34			34	34	34	95	95	95	3	95		04/01/2015
14		0228393	AMBIENT DETECTOR 10			1				14	WB		Q	10/15/2015	01/14/2016	39	39	39			39	39	39	140	141	141	3	140		04/01/2015
15		0228393	AMBIENT DETECTOR 11			1				14	WB		Q	10/15/2015	01/14/2016	34	34	34			34	34	34	93	93	93	3	93		04/01/2015
16		0228393	AMBIENT DETECTOR 12			1				14	WB		Q	10/15/2015	01/14/2016	36	36	40			36	36	40	96	97	107	3	96		04/01/2015
17		0228393	AMBIENT DETECTOR 13			1				14	WB		Q	10/15/2015	01/14/2016	36	36	41			36	36	41	90	90	95	3	90		04/01/2015
57		0228393	AMBIENT DETECTOR 11A			1				14	WB		Q	10/15/2015	01/14/2016	34	34	35			34	34	35	84	84	85	3	84		04/01/2016
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

SEE LAST PAGE FOR COMPLETE REPORT DETAILS BY COLUMN NUMBER

IT IS RECOMMENDED THAT YOU KEEP THIS REPORT FOR YOUR RECORDS

MIRION TECHNOLOGIES (GDS) INC.
2652 McGaw Avenue, Irvine, CA 92614
U.S./Canada: (800)251-3331
www.mirion.com

APPENDIX F

ALPHA TRACK ETCH DETECTOR RESULTS

AccuStar
Professional Radon Laboratory Services Since 1984

Radon in Air

NELAC NY 11769
NRPP 101193 AL
NRSB ARL0017

EPA Method #402-R-92-004
Alpha Track
NRPP Device Code 8205
NRSB Device Code 12001

Laboratory Report for:

Cecilia Green - Auxier & Associates, Inc.
9821 Cogdill Road Suite 1
Knoxville TN 37932

Property Tested:

Westlake Landfill
13570 St. Charles Rock Road
Bridgeton MO 63044

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result (pCi/L)
1877774	2964540	10/14/2015	01/07/2016	Room #1	0.5
1877775	2964546	10/15/2015	01/07/2016	Room #2	0.6
1877776	2964538	10/15/2015	01/07/2016	Room #3	< 0.4
1877777	2964539	10/15/2015	01/07/2016	Room #4	< 0.4
1877778	2964542	10/14/2015	01/08/2016	Room #5	< 0.4
1877779	2964544	10/14/2015	01/07/2016	Room #6	0.4
1877780	2964549	10/14/2015	01/08/2016	Room #7	0.5
1877781	2964550	10/14/2015	01/07/2016	Room #8	< 0.4
1877782	2964543	10/15/2015	01/07/2016	Room #9	< 0.4
1877783	2964537	10/15/2015	01/07/2016	Room #10	0.4

Comment: Your Alpha Track results are for informational purposes only. EPA protocol for long term testing of 91 to 365 days has not been met. A copy of this report was emailed to cgreene@auxier.com.

Test Performed By: Bill Abernathy

Distributed by: National Safety Products

Date Received: 01/12/2016 Date Logged: 01/14/2016 Date Analyzed: 01/20/2016 Date Reported: 01/27/2016

Report Reviewed By: M. Gray Report Approved By: Carolyn K. Allen

Carolyn K. Allen, President, AccuStar Labs

Disclaimer:

The uncertainty of this radon measurement is ~+/- 15 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques, and operation of the dwelling. Interference with test conditions may influence the test results.

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

11 Awl Street Medway MA 02053 888-480-8812 FAX 508-533-8831

AccuStar
Professional Radon Laboratory Services Since 1984

Radon in Air

NELAC NY 11769
NRPP 101193 AL
NRSB ARL0017

EPA Method #402-R-92-004
Alpha Track
NRPP Device Code 8205
NRSB Device Code 12001

Laboratory Report for:

Cecilia Green - Auxier & Associates, Inc.
9821 Cogdill Road Suite 1
Knoxville TN 37932

Property Tested:

Westlake Landfill
13570 St. Charles Rock Road
Bridgeton MO 63044

Log Number	Device Number	Test Exposure Duration:		Area Tested	Result (pCi/L)
1877784	2964547	10/14/2015	01/08/2016	Room #11	< 0.4
1877785	2964545	10/15/2015	01/07/2016	Room #12	0.5
1877786	2964541	10/15/2015	01/07/2016	Room #13	< 0.4
1877787	2964548	10/14/2015	01/07/2016	Room #10 Duplicate	< 0.4

Comment: Your Alpha Track results are for informational purposes only. EPA protocol for long term testing of 91 to 365 days has not been met. A copy of this report was emailed to cgreene@auxier.com.

Test Performed By: Bill Abernathy

Distributed by: National Safety Products

Date Received: 01/12/2016 Date Logged: 01/14/2016 Date Analyzed: 01/20/2016 Date Reported: 01/27/2016

Report Reviewed By: M. Thay Report Approved By: Carolyn K. Allen

Carolyn K. Allen, President, AccuStar Labs

Disclaimer:

The uncertainty of this radon measurement is ~+/- 15 %. Factors contributing to uncertainty include statistical variations, daily and seasonal variations in radon concentrations, sample collection techniques, and operation of the dwelling. Interference with test conditions may influence the test results.

This report may only be transferred to a third party in its entirety. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY. Results shown on this report represent levels of radon gas measured between the dates shown in the room or area of the site identified above as "Property Tested". Incorrect information will affect results. The results may not be construed as either predictive or supportive of measurements conducted in any area of this structure at any other time. AccuStar Labs, its employees and agents are not responsible for the consequences of any action taken or not taken based upon the results reported or any verbal or written interpretation of the results.

11 Awl Street Medway MA 02053 888-480-8812 FAX 508-533-8831

APPENDIX G

METEOROLOGICAL STATION DATA

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
10/16/2015 0:00	9	326	17.2	1.5	30.9	
10/16/2015 1:00	7	325	15.4	18.3	30.9	
10/16/2015 2:00	2.9	1	13.3	32	30.9	
10/16/2015 3:00	1.4	28	11.6	46	30.9	
10/16/2015 4:00	2.7	324	11.1	47.8	30.9	
10/16/2015 5:00	1.8	249	10	53.4	30.9	
10/16/2015 6:00	3.1	211	9.4	56.8	30.9	
10/16/2015 7:00	2.5	204	8.2	60.7	30.9	
10/16/2015 8:00	3.2	237	8.7	57.2	31	
10/16/2015 9:00	4.2	276	9.6	56.1	30.9	
10/16/2015 10:00	7.4	315	10.8	53.7	30.9	
10/16/2015 11:00	9	316	12.9	6.7	30.9	
10/16/2015 12:00	10.1	314	14.5	1.5	31	
10/16/2015 13:00	10.3	298	15.4	1.5	30.9	
10/16/2015 14:00	10.8	264	16.1	1.5	30.9	
10/16/2015 15:00	10.1	289	16.5	1.5	30.9	
10/16/2015 16:00	9.4	301	17	1.5	30.9	
10/16/2015 17:00	9.4	296	17	1.5	30.9	
10/16/2015 18:00	8.2	302	16.3	1.5	30.9	
10/16/2015 19:00	6.5	312	14.7	1.4	30.9	
10/16/2015 20:00	3.1	313	12.7	8.2	30.9	
10/16/2015 21:00	5	306	11.9	41	30.9	
10/16/2015 22:00	5.9	309	10.9	43.6	30.9	
10/16/2015 23:00	2.4	10	9.4	49.9	30.9	
10/17/2015 0:00	3.3	301	8.6	53.4	31	
10/17/2015 1:00	6.6	326	8.4	52.7	30.9	
10/17/2015 2:00	6.1	318	7.6	53.5	31	
10/17/2015 3:00	4.2	318	6.9	55.3	30.9	
10/17/2015 4:00	5.3	295	6.3	60.1	31	
10/17/2015 5:00	5.3	298	5.6	61.6	31	
10/17/2015 6:00	4.8	320	5.3	63.2	31	
10/17/2015 7:00	3	342	4.9	64.8	31	
10/17/2015 8:00	2.4	334	4.5	68.8	31	
10/17/2015 9:00	7	330	5.7	60.8	31	
10/17/2015 10:00	9.9	349	6.8	52.7	31	
10/17/2015 11:00	9.7	342	7.9	47.9	31	
10/17/2015 12:00	9.8	345	9	43.3	31	
10/17/2015 13:00	9.2	348	10.1	38.7	31	
10/17/2015 14:00	9	356	11.2	33.5	31	
10/17/2015 15:00	7.9	1	12.2	29.3	31	
10/17/2015 16:00	6.4	5	12.8	27.2	31	
10/17/2015 17:00	6.5	4	12.9	26.1	31	
10/17/2015 18:00	5.2	351	12.6	27.4	31	
10/17/2015 19:00	2.3	18	10.8	33	30.9	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
10/17/2015 20:00	1.5	25	8.6	44.6	31	
10/17/2015 21:00	1.2	40	7	54.9	31	
10/17/2015 22:00	1	23	5.9	62.3	31	
10/17/2015 23:00	1.3	45	5.4	63	31	
10/18/2015 0:00	1.1	109	4.8	67.2	31	
10/18/2015 1:00	1	131	4.6	72.1	31	
10/18/2015 2:00	1	115	4.4	77.7	31	
10/18/2015 3:00	0.8	83	3.3	83.1	31	
10/18/2015 4:00	0.7	114	3.1	83.5	31	
10/18/2015 5:00	1	96	2.9	84.8	31	
10/18/2015 6:00	1	90	2.4	85.2	31	
10/18/2015 7:00	1	72	2.2	86.5	31	
10/18/2015 8:00	1.3	67	2.4	84.1	31	
10/18/2015 9:00	1.3	22	6.1	70.7	31	
10/18/2015 10:00	2.9	133	10.8	44.4	31	
10/18/2015 11:00	5.4	132	12.6	9.6	31	
10/18/2015 12:00	6.2	122	13.8	21.8	31	
10/18/2015 13:00	6.2	127	14.9	4.9	31	
10/18/2015 14:00	5.9	127	16	5.5	31	
10/18/2015 15:00	5	116	16.9	1.6	31	
10/18/2015 16:00	5.3	124	17.4	1.5	31	
10/18/2015 17:00	4.6	119	17.7	1.5	30.9	
10/18/2015 18:00	4.8	119	16.8	1.5	30.9	
10/18/2015 19:00	3.1	126	14.9	12.7	30.9	
10/18/2015 20:00	2.8	103	13.4	27.3	30.9	
10/18/2015 21:00	3.4	122	12.9	38.6	30.9	
10/18/2015 22:00	5.1	132	13	37.9	30.9	
10/18/2015 23:00	5.4	145	12.2	40.7	30.9	
10/19/2015 0:00	5.2	144	11.8	43.1	30.9	
10/19/2015 1:00	5.3	147	11.6	42.9	30.9	
10/19/2015 2:00	6.5	144	11.5	42.2	30.9	
10/19/2015 3:00	6	140	10.8	45.4	30.9	
10/19/2015 4:00	6.2	140	10.4	47.3	30.9	
10/19/2015 5:00	6.1	145	10.4	47.3	30.9	
10/19/2015 6:00	5.6	149	10.1	48.6	30.9	
10/19/2015 7:00	5.6	150	9.9	48.6	30.9	
10/19/2015 8:00	6.1	148	9.8	50.2	30.9	
10/19/2015 9:00	6.9	151	11.3	28.3	30.9	
10/19/2015 10:00	7.6	153	13.3	1.5	30.9	
10/19/2015 11:00	8	159	15.7	3.5	30.9	
10/19/2015 12:00	7.9	159	18.5	1.5	30.9	
10/19/2015 13:00	9	162	21.1	10.7	30.9	
10/19/2015 14:00	9	164	23.2	22	30.9	
10/19/2015 15:00	8.9	177	24.4	1.5	30.8	
10/19/2015 16:00	9.1	169	24.9	18.1	30.8	
10/19/2015 17:00	9	164	25.1	10.6	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
10/19/2015 18:00	7.3	147	24.6	1.5	30.8	
10/19/2015 19:00	8.3	142	22.6	1.5	30.8	
10/19/2015 20:00	7.1	136	20.7	1.5	30.8	
10/19/2015 21:00	8	140	19.2	1.5	30.8	
10/19/2015 22:00	8.9	143	18.3	1.5	30.8	
10/19/2015 23:00	8.2	147	17.6	1.5	30.8	
10/20/2015 0:00	8.1	147	16.9	7.2	30.8	
10/20/2015 1:00	6.6	151	16.4	39.1	30.8	
10/20/2015 2:00	5.4	168	16.2	38	30.8	
10/20/2015 3:00	7.2	169	16.2	37	30.8	
10/20/2015 4:00	4.7	161	15.5	38.3	30.9	
10/20/2015 5:00	5.2	145	14.7	34.5	30.8	
10/20/2015 6:00	5.2	153	15	21.8	30.9	
10/20/2015 7:00	5.9	159	15.3	1.4	30.9	
10/20/2015 8:00	5.3	146	14.7	31.8	30.8	
10/20/2015 9:00	7.5	161	15.6	31.6	30.9	
10/20/2015 10:00	9.6	173	17.5	16	30.8	
10/20/2015 11:00	12.5	180	19.8	1.5	30.8	
10/20/2015 12:00	10.7	169	21.9	24.3	30.9	
10/20/2015 13:00	9.5	165	23.5	27.1	30.8	
10/20/2015 14:00	7	139	24.6	19.4	30.8	
10/20/2015 15:00	6.8	135	26	14.4	30.8	
10/20/2015 16:00	8	146	26.4	7.7	30.8	
10/20/2015 17:00	8.9	143	26.5	1.5	30.8	
10/20/2015 18:00	6.4	133	25.2	23.6	30.8	
10/20/2015 19:00	7.7	134	23.5	11.5	30.8	
10/20/2015 20:00	8.9	140	22.2	1.5	30.8	
10/20/2015 21:00	8.3	152	21.4	1.5	30.8	
10/20/2015 22:00	7.2	149	20.3	1.5	30.8	
10/20/2015 23:00	5.7	150	19.3	1.5	30.8	
10/21/2015 0:00	4.3	153	18.6	1.5	30.8	
10/21/2015 1:00	3	148	18.8	1.5	30.8	
10/21/2015 2:00	2.4	74	17.4	1.5	30.8	
10/21/2015 3:00	2.5	113	16.7	1.5	30.9	
10/21/2015 4:00	4.4	141	17.3	1.5	30.9	
10/21/2015 5:00	3.3	136	16.6	6.4	30.8	
10/21/2015 6:00	5.5	149	15.9	65.1	30.8	
10/21/2015 7:00	6.1	176	15.9	63.1	30.9	
10/21/2015 8:00	6.7	176	15.8	53.6	30.9	
10/21/2015 9:00	6.8	173	17.1	1.5	30.9	
10/21/2015 10:00	5.4	171	18.4	1.5	30.9	
10/21/2015 11:00	7.1	185	20.9	20.2	30.9	
10/21/2015 12:00	7.2	197	24.3	24.3	30.9	
10/21/2015 13:00	10.8	209	26	6.8	30.8	
10/21/2015 14:00	11.4	217	27.1	8.7	30.8	
10/21/2015 15:00	10.4	206	28	34	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
10/21/2015 16:00	7.1	185	28.8	27.6	30.8	
10/21/2015 17:00	6.8	184	29.2	34.1	30.8	
10/21/2015 18:00	6	180	28.4	17.1	30.8	
10/21/2015 19:00	3.3	170	26.3	5.8	30.8	
10/21/2015 20:00	2.5	129	24.6	48	30.8	
10/21/2015 21:00	3.1	154	23.4	51.5	30.8	
10/21/2015 22:00	3.3	172	22.6	25.3	30.9	
10/21/2015 23:00	4.3	173	21.9	1.5	30.8	
10/22/2015 0:00	4.7	172	21.4	1.5	30.8	
10/22/2015 1:00	4.5	177	20.7	1.5	30.8	
10/22/2015 2:00	3.4	168	20	1.5	30.8	
10/22/2015 3:00	3.9	170	19.6	1.5	30.9	
10/22/2015 4:00	3.5	171	18.9	1.5	30.9	
10/22/2015 5:00	1.8	201	17.8	1.5	30.8	
10/22/2015 6:00	1.5	170	16.4	1.4	30.9	
10/22/2015 7:00	1.6	68	15.7	1.4	30.9	
10/22/2015 8:00	1.3	132	15.7	1.4	30.9	
10/22/2015 9:00	1.9	193	18.5	4.3	30.9	
10/22/2015 10:00	5.8	203	19.8	1.5	30.9	
10/22/2015 11:00	4.8	208	22.2	15	30.9	
10/22/2015 12:00	3.7	240	24.3	22.7	30.9	
10/22/2015 13:00	2.7	251	26.1	1.6	30.9	
10/22/2015 14:00	2.9	7	27.8	2.2	30.9	
10/22/2015 15:00	3.9	47	28.3	23.4	30.8	
10/22/2015 16:00	3.7	32	27.9	1.5	30.8	
10/22/2015 17:00	4.7	92	28.4	1.5	30.8	
10/22/2015 18:00	3.2	98	27.2	1.5	30.8	
10/22/2015 19:00	3.3	104	25.6	1.5	30.8	
10/22/2015 20:00	3.2	116	24.3	34.6	30.8	
10/22/2015 21:00	4.4	128	23.4	51.4	30.9	
10/22/2015 22:00	4.1	127	22.3	7.2	30.8	
10/22/2015 23:00	3.2	122	21.4	1.5	30.8	
10/23/2015 0:00	4	126	21.1	1.5	30.8	
10/23/2015 1:00	3.4	121	20.1	1.5	30.8	
10/23/2015 2:00	3.4	135	19.7	1.5	30.8	
10/23/2015 3:00	3.8	140	19.5	1.5	30.9	
10/23/2015 4:00	3.4	111	18.9	1.5	30.8	
10/23/2015 5:00	3.1	97	18.7	1.5	30.8	
10/23/2015 6:00	3	123	18.9	1.5	30.8	
10/23/2015 7:00	3.5	113	18.6	1.5	30.8	
10/23/2015 8:00	4	91	18.3	1.5	30.8	
10/23/2015 9:00	5.8	102	18.8	1.5	30.8	
10/23/2015 10:00	5.9	110	19.7	1.5	30.8	
10/23/2015 11:00	6.3	130	19.7	1.5	30.8	
10/23/2015 12:00	7.4	137	20	1.5	30.8	
10/23/2015 13:00	7.7	144	19.6	1.5	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
10/23/2015 14:00	8.6	144	21.6	1.5	30.8	
10/23/2015 15:00	9.8	156	22.8	26.4	30.8	
10/23/2015 16:00	12.9	160	23.3	66.8	30.8	
10/23/2015 17:00	11.6	163	22.8	69.6	30.8	
10/23/2015 18:00	11	161	22.4	71.2	30.8	
10/23/2015 19:00	10.4	160	22	73.1	30.8	
10/23/2015 20:00	9.2	149	21.7	46.9	30.7	
10/23/2015 21:00	8.6	152	21.4	1.5	30.7	
10/23/2015 22:00	8.7	159	21.2	1.5	30.8	
10/23/2015 23:00	8.1	161	20.7	1.5	30.8	
10/24/2015 0:00	9	154	20.2	1.5	30.8	
10/24/2015 1:00	7.5	164	20.3	1.5	30.7	
10/24/2015 2:00	6.7	163	20.5	1.5	30.7	
10/24/2015 3:00	6.9	167	20.3	1.5	30.7	
10/24/2015 4:00	8.9	171	20.2	1.5	30.7	
10/24/2015 5:00	8	172	19.8	1.5	30.7	
10/24/2015 6:00	8.3	175	19.7	1.5	30.7	
10/24/2015 7:00	8.8	178	19.5	1.5	30.7	
10/24/2015 8:00	7.6	184	19.4	1.5	30.7	
10/24/2015 9:00	7.9	184	19.7	1.5	30.8	
10/24/2015 10:00	10.4	211	19.9	2.5	30.8	
10/24/2015 11:00	11.9	259	16.8	1.5	30.8	
10/24/2015 12:00	11.9	255	16.7	1.5	30.8	
10/24/2015 13:00	11.9	262	16.9	1.5	30.8	
10/24/2015 14:00	11.2	259	16.5	8.8	30.8	
10/24/2015 15:00	10	255	16.9	15.5	30.8	
10/24/2015 16:00	11.7	266	16.7	1.5	30.8	
10/24/2015 17:00	11.3	272	16	1.5	30.8	
10/24/2015 18:00	10.6	274	15.8	1.5	30.8	
10/24/2015 19:00	9.4	272	15.3	1.5	30.8	
10/24/2015 20:00	7.5	277	14.6	40.1	30.8	
10/24/2015 21:00	5.9	295	13.9	71.9	30.8	
10/24/2015 22:00	3.2	289	13.2	20.5	30.9	
10/24/2015 23:00	3	292	12.7	23.6	30.9	
10/25/2015 0:00	2.5	258	12.1	80.9	30.9	
10/25/2015 1:00	1.8	293	11.2	84.9	30.9	
10/25/2015 2:00	2.7	322	10.8	57.7	30.9	
10/25/2015 3:00	1.3	231	10.2	1.4	30.9	
10/25/2015 4:00	1.6	19	9.3	43.7	30.9	
10/25/2015 5:00	2.3	351	8.7	91.3	30.9	
10/25/2015 6:00	3.1	3	8.2	88.9	30.9	
10/25/2015 7:00	3.8	6	8.4	87.4	30.9	
10/25/2015 8:00	3.5	11	8.1	88.2	30.9	
10/25/2015 9:00	2.5	360	8.4	85.2	30.9	
10/25/2015 10:00	3.5	5	9.5	83.3	30.9	
10/25/2015 11:00	5	18	11.2	40.1	30.9	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
10/25/2015 12:00	7.2	40	12.7	47.2	30.9	
10/25/2015 13:00	7	40	13.8	10.2	30.9	
10/25/2015 14:00	6.7	16	14.9	1.5	30.9	
10/25/2015 15:00	6.7	10	15.6	1.5	30.9	
10/25/2015 16:00	6.9	18	16.4	1.5	30.9	
10/25/2015 17:00	7.2	8	16.8	26	30.9	
10/25/2015 18:00	5	30	16.7	22.9	30.9	
10/25/2015 19:00	2.6	18	14.8	1.4	30.9	
10/25/2015 20:00	1.9	27	12.5	46.2	30.9	
10/25/2015 21:00	1.8	28	11.3	37.3	30.9	
10/25/2015 22:00	2.5	354	9.9	35.4	30.9	
10/25/2015 23:00	2.9	352	9.7	63.7	30.9	
10/26/2015 0:00	2.5	358	9.6	28.4	30.9	
10/26/2015 1:00	1.9	16	8.6	72.2	30.9	
10/26/2015 2:00	3.2	3	8.7	49.4	30.9	
10/26/2015 3:00	3	13	8.5	36	30.9	
10/26/2015 4:00	3	14	7.8	74.5	30.9	
10/26/2015 5:00	2.7	39	8	72.2	30.9	
10/26/2015 6:00	3	13	7.6	73.6	30.9	
10/26/2015 7:00	2.3	358	6.6	77.2	30.9	
10/26/2015 8:00	3.3	3	6.8	74.8	30.9	
10/26/2015 9:00	4.7	25	9.4	36.7	30.9	
10/26/2015 10:00	7.1	56	11.8	30.8	30.9	
10/26/2015 11:00	8.1	62	13.9	2.8	30.9	
10/26/2015 12:00	8.1	62	16.1	1.5	30.9	
10/26/2015 13:00	8.7	57	17.5	4	30.9	
10/26/2015 14:00	8.3	59	18.6	5.7	30.9	
10/26/2015 15:00	8	49	19.6	1.5	30.8	
10/26/2015 16:00	7.4	73	20.4	1.5	30.9	
10/26/2015 17:00	6.6	68	20.2	1.5	30.9	
10/26/2015 18:00	5.5	58	19.4	1.5	30.8	
10/26/2015 19:00	5	40	18.1	2	30.9	
10/26/2015 20:00	4.4	37	17.5	1.5	30.8	
10/26/2015 21:00	5.7	46	17.8	1.5	30.8	
10/26/2015 22:00	5.8	59	17.6	1.5	30.9	
10/26/2015 23:00	6.1	63	17.3	1.5	30.8	
10/27/2015 0:00	6.8	68	16.9	1.5	30.8	
10/27/2015 1:00	6.2	71	16.4	1.5	30.8	
10/27/2015 2:00	6.7	83	15.5	3.8	30.8	
10/27/2015 3:00	5.1	72	12.8	85.3	30.8	
10/27/2015 4:00	5	68	12.5	97.2	30.8	
10/27/2015 5:00	4.4	63	12.4	98.8	30.8	
10/27/2015 6:00	5.3	60	12.7	24.5	30.8	
10/27/2015 7:00	5.9	59	12.7	1.4	30.8	
10/27/2015 8:00	5.6	63	12.7	1.4	30.8	
10/27/2015 9:00	5.9	55	13.1	1.4	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
10/27/2015 10:00	5.7	53	13.6	1.4	30.8	
10/27/2015 11:00	5.5	67	13.8	1.4	30.8	
10/27/2015 12:00	5.4	62	14.1	1.4	30.8	
10/27/2015 13:00	5.9	73	14.6	1.5	30.8	
10/27/2015 14:00	6.1	73	15	1.5	30.7	
10/27/2015 15:00	6.2	69	15.3	1.5	30.7	
10/27/2015 16:00	6	70	15.4	1.5	30.7	
10/27/2015 17:00	5.8	74	15.5	1.5	30.7	
10/27/2015 18:00	5	65	15.5	1.5	30.7	
10/27/2015 19:00	4.4	70	15.2	1.5	30.7	
10/27/2015 20:00	3.1	88	15.2	1.5	30.7	
10/27/2015 21:00	2.6	116	15.2	1.5	30.7	
10/27/2015 22:00	4	113	14.7	1.5	30.7	
10/27/2015 23:00	3.5	121	14.6	1.5	30.7	
10/28/2015 0:00	4.6	146	14.7	1.5	30.7	
10/28/2015 1:00	4.2	155	14.6	1.5	30.6	
10/28/2015 2:00	4.2	179	14.7	1.5	30.6	
10/28/2015 3:00	4	162	14.9	1.5	30.6	
10/28/2015 4:00	5.6	196	15	1.5	30.6	
10/28/2015 5:00	6.8	218	15.2	1.5	30.6	
10/28/2015 6:00	7.9	235	15.2	1.5	30.6	
10/28/2015 7:00	9.9	232	15	1.5	30.6	
10/28/2015 8:00	9.4	252	14.1	1.5	30.6	
10/28/2015 9:00	9.7	242	13.4	1.4	30.6	
10/28/2015 10:00	11.9	247	13.5	1.4	30.6	
10/28/2015 11:00	12.4	253	12.9	1.4	30.6	
10/28/2015 12:00	11.5	237	13.2	1.5	30.7	
10/28/2015 13:00	13.2	233	13.5	1.5	30.6	
10/28/2015 14:00	12.8	241	14	1.5	30.7	
10/28/2015 15:00	13.7	233	13.9	1.5	30.6	
10/28/2015 16:00	14.6	236	13.8	1.5	30.7	
10/28/2015 17:00	14.1	224	13.7	1.5	30.7	
10/28/2015 18:00	11.9	214	13.9	1.5	30.7	
10/28/2015 19:00	8.9	204	13.1	1.4	30.7	
10/28/2015 20:00	8.1	206	12.3	13.1	30.7	
10/28/2015 21:00	11.1	255	12.7	1.4	30.7	
10/28/2015 22:00	4.9	227	11.4	35.6	30.7	
10/28/2015 23:00	4	178	10	13.9	30.7	
10/29/2015 0:00	5.3	181	9.9	57	30.7	
10/29/2015 1:00	8.8	208	10	57.6	30.7	
10/29/2015 2:00	10.9	263	10.4	41.1	30.7	
10/29/2015 3:00	8.2	293	8.5	47.3	30.7	
10/29/2015 4:00	6.3	245	7.7	50.1	30.7	
10/29/2015 5:00	8.1	261	7.3	51.1	30.7	
10/29/2015 6:00	6	239	6.5	53.7	30.7	
10/29/2015 7:00	6.8	230	5.8	59.8	30.7	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
10/29/2015 8:00	7.9	224	5.1	62.9	30.7	
10/29/2015 9:00	9.9	236	5.8	58.5	30.7	
10/29/2015 10:00	11.9	245	6.7	53.7	30.7	
10/29/2015 11:00	14.1	238	7.8	28.1	30.7	
10/29/2015 12:00	13.9	246	9	38.2	30.8	
10/29/2015 13:00	11.9	252	10.2	24.4	30.8	
10/29/2015 14:00	12.7	257	11.4	30.4	30.8	
10/29/2015 15:00	12.4	262	12.1	35.6	30.8	
10/29/2015 16:00	11.3	256	12.7	1.5	30.7	
10/29/2015 17:00	9.6	273	13.1	24.4	30.8	
10/29/2015 18:00	8.9	284	12.6	28.4	30.8	
10/29/2015 19:00	5.5	303	11.4	30.7	30.8	
10/29/2015 20:00	4.3	309	10.5	1.4	30.8	
10/29/2015 21:00	3.2	345	9.2	46.7	30.8	
10/29/2015 22:00	1.9	44	7.8	73.8	30.8	
10/29/2015 23:00	1.1	102	7.1	78.6	30.8	
10/30/2015 0:00	1.2	151	6.4	82.7	30.8	
10/30/2015 1:00	2.5	175	6	86.9	30.8	
10/30/2015 2:00	2	181	5.5	93.8	30.8	
10/30/2015 3:00	2.4	186	5.1	96.8	30.8	
10/30/2015 4:00	1.8	193	4.5	99.5	30.8	
10/30/2015 5:00	1.3	149	3.9	100.2	30.8	
10/30/2015 6:00	1.3	179	3.7	101	30.8	
10/30/2015 7:00	2.9	180	3.6	100.8	30.9	
10/30/2015 8:00	2.6	186	3.1	101.1	30.8	
10/30/2015 9:00	1.1	15	5.3	93.2	30.8	
10/30/2015 10:00	3	5	8.4	71.5	30.9	
10/30/2015 11:00	3.9	53	10.6	55.6	30.8	
10/30/2015 12:00	5.3	110	12.7	22.7	30.8	
10/30/2015 13:00	6.1	122	13	1.5	30.8	
10/30/2015 14:00	5	121	13.4	1.5	30.8	
10/30/2015 15:00	4.8	109	13.8	6.1	30.8	
10/30/2015 16:00	4.7	100	13.7	1.5	30.8	
10/30/2015 17:00	4.5	105	13.6	1.4	30.8	
10/30/2015 18:00	4.1	98	13.4	1.4	30.8	
10/30/2015 19:00	3.7	111	13.2	1.4	30.8	
10/30/2015 20:00	4	110	12.9	23.8	30.8	
10/30/2015 21:00	4.1	109	12.7	38.4	30.8	
10/30/2015 22:00	3.7	102	12.3	1.4	30.8	
10/30/2015 23:00	4.1	110	12.3	1.4	30.8	
10/31/2015 0:00	3.3	121	12.1	1.4	30.8	
10/31/2015 1:00	3.3	93	11.5	1.4	30.8	
10/31/2015 2:00	4.1	110	10.6	1.4	30.8	
10/31/2015 3:00	7.3	102	9.6	6.8	30.8	
10/31/2015 4:00	7	110	9.5	1.4	30.8	
10/31/2015 5:00	5.6	117	9.9	1.4	30.7	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
10/31/2015 6:00	5.9	120	10.2	1.4	30.8	
10/31/2015 7:00	6.1	145	10.1	1.4	30.7	
10/31/2015 8:00	8.3	133	10.6	1.4	30.7	
10/31/2015 9:00	7.5	135	11	1.4	30.7	
10/31/2015 10:00	8.3	141	11.4	1.4	30.7	
10/31/2015 11:00	10.8	147	12.1	1.4	30.7	
10/31/2015 12:00	10.4	151	12.9	1.4	30.7	
10/31/2015 13:00	9.3	160	13.7	1.4	30.7	
10/31/2015 14:00	8.2	157	13.8	1.4	30.7	
10/31/2015 15:00	7.3	179	14.7	10.2	30.7	
10/31/2015 16:00	5.5	190	14.6	1.5	30.7	
10/31/2015 17:00	7.3	179	14.7	84.9	30.7	
10/31/2015 18:00	5.2	209	15	6	30.7	
10/31/2015 19:00	5.3	225	14.9	1.5	30.7	
10/31/2015 20:00	2.7	236	14.8	1.5	30.7	
10/31/2015 21:00	5.9	263	14.5	7.2	30.7	
10/31/2015 22:00	5	246	13.8	29.9	30.7	
10/31/2015 23:00	4.7	239	13.2	78.4	30.7	
11/1/2015 0:00	4.7	215	12.6	1.4	30.7	
11/1/2015 1:00	4.5	232	12.1	1.4	30.7	
11/1/2015 2:00	4.5	255	11.8	1.4	30.8	
11/1/2015 3:00	4.4	231	11.2	1.4	30.8	
11/1/2015 4:00	5	214	10.7	1.4	30.7	
11/1/2015 5:00	4.9	216	10.4	1.4	30.8	
11/1/2015 6:00	4.3	186	9.9	13.1	30.8	
11/1/2015 7:00	3.6	203	9.5	1.4	30.8	
11/1/2015 8:00	2.7	205	8.7	1.4	30.8	
11/1/2015 9:00	2.2	208	8.2	84.4	30.8	
11/1/2015 10:00	4.6	188	9.4	1.5	30.8	
11/1/2015 11:00	4.4	194	11.1	1.5	30.8	
11/1/2015 12:00	3.3	203	14.6	13.5	30.8	
11/1/2015 13:00	4.1	203	17	1.5	30.8	
11/1/2015 14:00	4.5	217	18.4	35.7	30.8	
11/1/2015 15:00	3.3	215	20.4	11.1	30.8	
11/1/2015 16:00	4.6	142	21.7	1.5	30.8	
11/1/2015 17:00	4.2	124	21.9	1.5	30.8	
11/1/2015 18:00	3.1	127	21.1	1.5	30.8	
11/1/2015 19:00	2.2	125	18.7	1.5	30.8	
11/1/2015 20:00	2.4	112	16.7	1.4	30.8	
11/1/2015 21:00	2.4	117	16	1.4	30.8	
11/1/2015 22:00	3.8	124	15.7	1.4	30.8	
11/1/2015 23:00	5.6	127	15.5	1.5	30.8	
11/2/2015 0:00	5.1	136	14.9	1.4	30.8	
11/2/2015 1:00	2.2	154	13.6	1.4	30.8	
11/2/2015 2:00	1.4	141	12.1	2.8	30.8	
11/2/2015 3:00	1.2	175	10.6	19.3	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/2/2015 4:00	1.7	139	10.1	10.2	30.8	
11/2/2015 5:00	1.6	109	9.1	1.4	30.8	
11/2/2015 6:00	1.6	83	8.5	35.4	30.8	
11/2/2015 7:00	1.9	61	7.5	96.5	30.8	
11/2/2015 8:00	1	130	7.5	98.2	30.8	
11/2/2015 9:00	1.4	187	10	14.3	30.8	
11/2/2015 10:00	2.7	185	13.1	1.5	30.8	
11/2/2015 11:00	6	197	13.8	1.5	30.8	
11/2/2015 12:00	6.5	186	14.3	1.5	30.8	
11/2/2015 13:00	5	232	16.9	11.5	30.8	
11/2/2015 14:00	5.1	239	18.6	1.5	30.8	
11/2/2015 15:00	2.9	225	20.7	4.7	30.8	
11/2/2015 16:00	3.9	90	22.1	1.5	30.8	
11/2/2015 17:00	4.6	111	21.5	1.5	30.8	
11/2/2015 18:00	5.2	131	19.5	1.5	30.8	
11/2/2015 19:00	5.1	123	16.6	1.5	30.8	
11/2/2015 20:00	3.7	122	14	1.4	30.8	
11/2/2015 21:00	4	108	13	1.4	30.8	
11/2/2015 22:00	4.3	114	12.7	1.4	30.8	
11/2/2015 23:00	4.7	132	12.2	1.4	30.8	
11/3/2015 0:00	4.4	138	11.9	1.4	30.8	
11/3/2015 1:00	4.4	145	11.9	1.4	30.8	
11/3/2015 2:00	3	139	11.8	1.4	30.8	
11/3/2015 3:00	3	144	11.8	1.4	30.8	
11/3/2015 4:00	3.2	146	11.8	1.4	30.8	
11/3/2015 5:00	3	139	12	1.4	30.8	
11/3/2015 6:00	3	111	11.8	1.4	30.8	
11/3/2015 7:00	3.5	126	11.6	1.4	30.8	
11/3/2015 8:00	3.5	139	11.4	1.4	30.8	
11/3/2015 9:00	3	169	11.3	1.4	30.8	
11/3/2015 10:00	2.9	113	11.5	1.4	30.8	
11/3/2015 11:00	3.2	157	11.9	1.4	30.8	
11/3/2015 12:00	2.4	127	13.5	1.5	30.8	
11/3/2015 13:00	2.6	142	15.3	2.7	30.8	
11/3/2015 14:00	3.3	87	17.3	1.5	30.8	
11/3/2015 15:00	3.3	103	19.5	1.5	30.8	
11/3/2015 16:00	4.4	106	19.8	1.5	30.8	
11/3/2015 17:00	5.4	97	19	5.1	30.8	
11/3/2015 18:00	6	102	16.6	1.5	30.8	
11/3/2015 19:00	5.3	92	15	1.5	30.8	
11/3/2015 20:00	4.5	100	15.2	1.5	30.8	
11/3/2015 21:00	4.1	107	15.5	1.5	30.8	
11/3/2015 22:00	4.1	116	15.8	1.5	30.8	
11/3/2015 23:00	6.2	134	15.8	1.5	30.8	
11/4/2015 0:00	6.3	140	15.7	1.5	30.8	
11/4/2015 1:00	5.9	139	15.9	1.5	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/4/2015 2:00	5.4	139	15.8	1.5	30.8	
11/4/2015 3:00	3.5	136	15.4	1.5	30.8	
11/4/2015 4:00	2.6	144	15.2	1.5	30.8	
11/4/2015 5:00	3.1	161	15.2	1.5	30.8	
11/4/2015 6:00	3.7	147	15	1.5	30.8	
11/4/2015 7:00	2.9	139	14.7	1.5	30.8	
11/4/2015 8:00	3.9	144	14.5	1.5	30.8	
11/4/2015 9:00	5.4	182	14.7	1.5	30.8	
11/4/2015 10:00	4.6	176	15.1	1.5	30.8	
11/4/2015 11:00	3.9	171	16.2	23.4	30.8	
11/4/2015 12:00	3.2	155	17.3	26.5	30.9	
11/4/2015 13:00	4.1	151	18.1	1.5	30.8	
11/4/2015 14:00	4.3	147	19.5	1.5	30.8	
11/4/2015 15:00	4.3	125	20.3	1.5	30.8	
11/4/2015 16:00	5.1	107	21.2	1.5	30.8	
11/4/2015 17:00	5.3	112	20.5	1.5	30.8	
11/4/2015 18:00	5.5	109	19.7	1.5	30.8	
11/4/2015 19:00	5	104	19	1.5	30.8	
11/4/2015 20:00	4.3	111	18.8	1.5	30.8	
11/4/2015 21:00	6.2	131	19.2	1.5	30.8	
11/4/2015 22:00	6.7	134	19.1	1.5	30.8	
11/4/2015 23:00	7	141	19.7	1.5	30.8	
11/5/2015 0:00	7.7	143	19.6	1.5	30.8	
11/5/2015 1:00	6.3	162	19.6	1.5	30.8	
11/5/2015 2:00	4.4	165	19.4	1.5	30.8	
11/5/2015 3:00	4.3	147	18.8	1.5	30.8	
11/5/2015 4:00	3	145	18	1.5	30.8	
11/5/2015 5:00	5.5	181	18.4	1.5	30.8	
11/5/2015 6:00	3.1	148	17.8	1.5	30.8	
11/5/2015 7:00	4.1	111	16.6	1.5	30.8	
11/5/2015 8:00	4.5	113	16.7	1.5	30.8	
11/5/2015 9:00	4.3	118	17.1	1.5	30.8	
11/5/2015 10:00	8.1	141	18	1.5	30.8	
11/5/2015 11:00	8.9	155	18.9	1.5	30.8	
11/5/2015 12:00	7.8	147	19.3	1.5	30.8	
11/5/2015 13:00	6.4	152	19.4	1.5	30.8	
11/5/2015 14:00	8.2	161	18.6	1.5	30.8	
11/5/2015 15:00	7.3	155	18.5	1.5	30.8	
11/5/2015 16:00	8.1	150	18.5	1.5	30.7	
11/5/2015 17:00	11	147	18.2	1.5	30.7	
11/5/2015 18:00	8.7	144	18.1	1.5	30.7	
11/5/2015 19:00	9.5	145	18.3	1.5	30.7	
11/5/2015 20:00	10.1	150	18.3	1.5	30.7	
11/5/2015 21:00	7.8	168	18.6	1.5	30.7	
11/5/2015 22:00	7.4	186	18.2	1.5	30.8	
11/5/2015 23:00	10.7	126	18.3	1.5	30.7	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/6/2015 0:00	7.9	140	18.6	1.5	30.7	
11/6/2015 1:00	8.8	168	19	1.5	30.7	
11/6/2015 2:00	11	197	19.4	1.5	30.7	
11/6/2015 3:00	11.4	223	19.5	1.5	30.7	
11/6/2015 4:00	10.8	268	17.2	1.5	30.8	
11/6/2015 5:00	9.9	286	14.9	1.5	30.8	
11/6/2015 6:00	9.8	297	13.2	1.4	30.8	
11/6/2015 7:00	10	284	11.3	1.4	30.8	
11/6/2015 8:00	6.5	282	9.9	47.3	30.8	
11/6/2015 9:00	6.6	278	9.6	1.4	30.8	
11/6/2015 10:00	7.9	262	10.2	16.4	30.8	
11/6/2015 11:00	8.6	250	11.6	1.5	30.9	
11/6/2015 12:00	9.8	283	12.8	1.5	30.9	
11/6/2015 13:00	10.2	275	13.7	1.5	30.9	
11/6/2015 14:00	10.3	284	14.8	1.5	30.8	
11/6/2015 15:00	9.9	282	15.3	1.5	30.8	
11/6/2015 16:00	9.1	278	15.8	10.5	30.8	
11/6/2015 17:00	8.6	289	16	1.5	30.8	
11/6/2015 18:00	5.6	289	15.5	1.5	30.8	
11/6/2015 19:00	2.8	295	13.9	1.4	30.8	
11/6/2015 20:00	1.7	28	12.4	12.7	30.9	
11/6/2015 21:00	1.1	109	10.9	24.1	30.9	
11/6/2015 22:00	1.1	97	10.1	1.4	30.9	
11/6/2015 23:00	0.9	104	9.2	1.4	30.9	
11/7/2015 0:00	1.7	166	8.8	1.4	30.9	
11/7/2015 1:00	1.7	229	8.6	1.4	30.9	
11/7/2015 2:00	1.1	190	8	1.4	30.9	
11/7/2015 3:00	2.1	236	8.1	1.4	30.9	
11/7/2015 4:00	2	211	7.4	1.4	30.9	
11/7/2015 5:00	2.5	198	7	1.4	30.9	
11/7/2015 6:00	2.2	178	6.2	67.5	30.9	
11/7/2015 7:00	2.1	186	5.5	90.2	30.9	
11/7/2015 8:00	1.9	185	5.2	92.8	30.9	
11/7/2015 9:00	1.9	209	6.8	48.2	30.9	
11/7/2015 10:00	3.8	282	9.2	1.5	30.9	
11/7/2015 11:00	4.1	331	10.8	1.5	31	
11/7/2015 12:00	6.2	320	11.4	1.5	31	
11/7/2015 13:00	6.7	309	12.4	4.2	30.9	
11/7/2015 14:00	6.9	291	12.8	21.3	30.9	
11/7/2015 15:00	8	317	13.9	1.5	30.9	
11/7/2015 16:00	10	326	14.1	6.6	30.9	
11/7/2015 17:00	8.8	329	14.1	1.9	30.9	
11/7/2015 18:00	7.1	332	13.2	28.1	30.9	
11/7/2015 19:00	2.2	1	11.2	2.7	30.9	
11/7/2015 20:00	0.8	93	9.7	1.4	30.9	
11/7/2015 21:00	0.9	119	8.3	16	30.9	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/7/2015 22:00	1.8	28	7.3	32.1	30.9	
11/7/2015 23:00	2.1	31	6	76	30.9	
11/8/2015 0:00	1.1	77	5.9	47.4	30.9	
11/8/2015 1:00	0.9	145	5.2	79.4	30.9	
11/8/2015 2:00	0.6	92	4.4	83.9	31	
11/8/2015 3:00	1	138	4.1	86.2	31	
11/8/2015 4:00	1.1	85	3.6	87.1	31	
11/8/2015 5:00	1.1	106	2.8	89.1	31	
11/8/2015 6:00	1	132	2.6	92.8	31	
11/8/2015 7:00	0.7	104	1.8	96.6	31	
11/8/2015 8:00	1.2	64	1.3	96.3	31	
11/8/2015 9:00	0.9	92	4	87	31	
11/8/2015 10:00	2.3	354	6.4	79.1	31	
11/8/2015 11:00	4	59	9.4	40.4	31	
11/8/2015 12:00	3.3	81	11.7	25.3	31	
11/8/2015 13:00	3.4	166	12.7	4.5	31	
11/8/2015 14:00	3.2	39	13.6	1.5	30.9	
11/8/2015 15:00	3.7	62	13.9	1.5	30.9	
11/8/2015 16:00	5.2	340	13.6	6	30.9	
11/8/2015 17:00	5.4	334	13.4	29.3	30.9	
11/8/2015 18:00	3.1	65	12.7	11.6	30.9	
11/8/2015 19:00	2.1	52	10.3	1.4	30.9	
11/8/2015 20:00	2.1	69	9.1	1.4	30.9	
11/8/2015 21:00	2.2	100	8.3	21.6	30.9	
11/8/2015 22:00	1.6	81	6.7	63.3	30.9	
11/8/2015 23:00	1.4	55	5.4	70.5	30.9	
11/9/2015 0:00	1.3	4	3.9	79.7	30.9	
11/9/2015 1:00	1.4	359	3.3	83.6	30.9	
11/9/2015 2:00	1.4	34	2.9	86.3	30.9	
11/9/2015 3:00	0.8	70	2.3	87.2	30.9	
11/9/2015 4:00	0.7	95	2.2	93.9	30.9	
11/9/2015 5:00	1.2	61	1.8	97.2	30.9	
11/9/2015 6:00	0.9	69	1.5	99	30.9	
11/9/2015 7:00	0.7	43	1.1	100.4	30.9	
11/9/2015 8:00	0.9	43	1.4	100.9	30.9	
11/9/2015 9:00	1.3	20	2.8	99.7	30.9	
11/9/2015 10:00	2.7	355	5.3	85.3	30.9	
11/9/2015 11:00	2.3	342	8.6	36.5	30.9	
11/9/2015 12:00	2.6	354	11.8	6.6	30.9	
11/9/2015 13:00	3.5	343	13.4	1.5	30.9	
11/9/2015 14:00	4.3	312	13.7	1.5	30.9	
11/9/2015 15:00	4.4	292	14.1	1.5	30.9	
11/9/2015 16:00	3.9	300	14.6	1.5	30.8	
11/9/2015 17:00	4.1	305	14.3	1.5	30.8	
11/9/2015 18:00	4.9	328	13	1.4	30.8	
11/9/2015 19:00	2.5	10	11	1.4	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/9/2015 20:00	1.7	39	9.4	1.4	30.8	
11/9/2015 21:00	1.1	94	8	18.7	30.9	
11/9/2015 22:00	1	66	6.4	70.6	30.9	
11/9/2015 23:00	1.1	65	5.7	73.2	30.8	
11/10/2015 0:00	1.1	137	5.2	79.4	30.8	
11/10/2015 1:00	1.6	173	4.6	83	30.8	
11/10/2015 2:00	1.5	161	3.8	87.5	30.8	
11/10/2015 3:00	1.8	171	3.2	90.7	30.8	
11/10/2015 4:00	1.1	95	2.9	93.6	30.9	
11/10/2015 5:00	0.9	108	2.2	93.8	30.8	
11/10/2015 6:00	1	96	1.9	96.3	30.8	
11/10/2015 7:00	0.9	76	1.6	94.8	30.8	
11/10/2015 8:00	1.2	56	1.4	95.1	30.8	
11/10/2015 9:00	1.3	97	4	78.4	30.8	
11/10/2015 10:00	2.2	183	7.5	34.9	30.8	
11/10/2015 11:00	3.8	102	11.7	9.5	30.8	
11/10/2015 12:00	4.9	105	14.3	1.5	30.8	
11/10/2015 13:00	4.7	147	16.1	5.9	30.8	
11/10/2015 14:00	4.6	140	16.9	14.6	30.8	
11/10/2015 15:00	4.1	133	18.2	27.2	30.8	
11/10/2015 16:00	4.5	125	18.7	30.5	30.8	
11/10/2015 17:00	5.3	106	18.4	15.3	30.8	
11/10/2015 18:00	5.1	94	17.3	1.5	30.8	
11/10/2015 19:00	4.9	102	15.5	1.4	30.7	
11/10/2015 20:00	4.6	109	14.7	1.4	30.8	
11/10/2015 21:00	5.9	118	14.4	1.4	30.8	
11/10/2015 22:00	7.3	133	14	1.4	30.8	
11/10/2015 23:00	6.3	140	13.4	1.4	30.8	
11/11/2015 0:00	6.7	138	12.9	1.4	30.8	
11/11/2015 1:00	6.7	139	12.5	1.4	30.8	
11/11/2015 2:00	5.2	135	12.1	1.4	30.7	
11/11/2015 3:00	3.8	117	11.7	1.4	30.8	
11/11/2015 4:00	4.3	124	12.6	6.4	30.7	
11/11/2015 5:00	4.2	125	12.1	39.3	30.8	
11/11/2015 6:00	6	140	12.3	1.9	30.7	
11/11/2015 7:00	5.6	141	11.8	6.4	30.7	
11/11/2015 8:00	6.9	144	12	1.4	30.7	
11/11/2015 9:00	8.1	152	12.5	1.4	30.7	
11/11/2015 10:00	9.1	152	14.2	1.5	30.7	
11/11/2015 11:00	9.9	148	17.1	1.5	30.7	
11/11/2015 12:00	10.3	149	18.1	1.5	30.7	
11/11/2015 13:00	11.4	141	18.3	1.5	30.7	
11/11/2015 14:00	12.5	140	18	1.5	30.7	
11/11/2015 15:00	13.6	137	19	7.2	30.6	
11/11/2015 16:00	9.4	133	19.2	1.5	30.6	
11/11/2015 17:00	12.4	144	19.3	1.5	30.6	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/11/2015 18:00	13.5	143	18.3	1.5	30.6	
11/11/2015 19:00	13.9	144	17.3	1.5	30.6	
11/11/2015 20:00	16.7	145	18.3	1.5	30.6	
11/11/2015 21:00	15.3	156	18.9	1.5	30.6	
11/11/2015 22:00	12.1	185	19.1	1.5	30.6	
11/11/2015 23:00	17.1	202	19.1	1.5	30.6	
11/12/2015 0:00	23.2	207	17.5	1.5	30.6	
11/12/2015 1:00	22.3	227	13.6	1.4	30.6	
11/12/2015 2:00	24.1	221	11.3	1.4	30.6	
11/12/2015 3:00	23.2	230	10.1	1.4	30.6	
11/12/2015 4:00	21.2	227	9.3	1.4	30.7	
11/12/2015 5:00	19.5	224	8.9	1.4	30.7	
11/12/2015 6:00	19.4	228	8.9	1.4	30.7	
11/12/2015 7:00	16.4	222	8.8	1.4	30.7	
11/12/2015 8:00	17.4	226	9	1.4	30.7	
11/12/2015 9:00	16.4	235	9.1	1.4	30.7	
11/12/2015 10:00	19.2	234	9.5	1.4	30.7	
11/12/2015 11:00	16	238	10.5	7.1	30.7	
11/12/2015 12:00	16.4	241	11.8	6.8	30.7	
11/12/2015 13:00	16.1	243	13	20.7	30.7	
11/12/2015 14:00	16.5	244	13.9	1.5	30.8	
11/12/2015 15:00	15.8	257	14.5	1.5	30.8	
11/12/2015 16:00	15.7	254	14.8	1.5	30.8	
11/12/2015 17:00	15.8	255	14.8	1.5	30.8	
11/12/2015 18:00	14	252	14.4	1.4	30.8	
11/12/2015 19:00	11.5	250	13.7	1.4	30.8	
11/12/2015 20:00	9.7	249	12.9	1.4	30.8	
11/12/2015 21:00	9.5	249	12.4	1.4	30.8	
11/12/2015 22:00	8.8	247	11.7	1.4	30.8	
11/12/2015 23:00	9	257	11	1.4	30.8	
11/13/2015 0:00	8.7	254	10.1	1.4	30.8	
11/13/2015 1:00	7.3	253	9.4	1.4	30.9	
11/13/2015 2:00	7.3	247	9	1.4	30.8	
11/13/2015 3:00	6.9	252	8.4	18.9	30.9	
11/13/2015 4:00	6.4	245	7.9	28.7	30.8	
11/13/2015 5:00	5.9	242	7.1	56.3	30.9	
11/13/2015 6:00	6.6	241	6.5	57.5	30.9	
11/13/2015 7:00	5.4	216	5.8	57.3	30.9	
11/13/2015 8:00	5.5	210	5	60.2	30.9	
11/13/2015 9:00	5.6	201	5.7	59.4	30.9	
11/13/2015 10:00	5.9	223	7.4	44.8	30.9	
11/13/2015 11:00	9.4	248	9.1	1.5	30.9	
11/13/2015 12:00	9.3	256	10.7	1.5	30.9	
11/13/2015 13:00	9.6	263	12.3	1.5	30.9	
11/13/2015 14:00	12.3	268	13	1.5	30.9	
11/13/2015 15:00	12.4	270	13.8	1.5	30.9	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/13/2015 16:00	12.7	276	14.1	1.5	30.9	
11/13/2015 17:00	9.5	275	14.2	1.5	30.9	
11/13/2015 18:00	6.8	261	13.6	1.4	30.9	
11/13/2015 19:00	3.6	251	12.2	1.4	30.9	
11/13/2015 20:00	2.6	241	11.4	1.4	30.9	
11/13/2015 21:00	1.7	146	9.4	3.1	30.9	
11/13/2015 22:00	1.4	149	7.5	50.2	30.9	
11/13/2015 23:00	1.7	154	6.3	60.5	30.9	
11/14/2015 0:00	1.9	165	5.6	63.4	30.9	
11/14/2015 1:00	2.6	171	5.4	63.7	30.9	
11/14/2015 2:00	2.9	184	5	68.2	30.9	
11/14/2015 3:00	1.7	162	4.5	71.4	30.9	
11/14/2015 4:00	0.9	124	3.5	75.9	30.9	
11/14/2015 5:00	1.3	150	3.9	72.5	30.9	
11/14/2015 6:00	1.5	128	3.7	72.9	30.9	
11/14/2015 7:00	2.1	111	3.3	75.5	30.9	
11/14/2015 8:00	2.3	125	3.9	70.9	30.9	
11/14/2015 9:00	1.6	142	6	42.9	30.9	
11/14/2015 10:00	5.2	173	8.4	22.6	30.9	
11/14/2015 11:00	6.3	194	11.3	13.7	30.9	
11/14/2015 12:00	8.5	198	14.6	6.1	30.9	
11/14/2015 13:00	10.2	197	16.9	1.5	30.9	
11/14/2015 14:00	10.5	193	18.7	1.5	30.9	
11/14/2015 15:00	12.6	215	19.8	18.7	30.9	
11/14/2015 16:00	11.9	212	20.4	22	30.9	
11/14/2015 17:00	9.7	209	20.4	21.3	30.9	
11/14/2015 18:00	6.1	198	19.5	8.8	30.9	
11/14/2015 19:00	2.5	156	16.9	1.4	30.9	
11/14/2015 20:00	2	132	14.3	2	30.9	
11/14/2015 21:00	2.6	154	13.6	1.4	30.9	
11/14/2015 22:00	3.3	171	13.1	6.5	30.9	
11/14/2015 23:00	3.9	170	13	1.4	30.9	
11/15/2015 0:00	4.8	168	12.8	1.4	30.9	
11/15/2015 1:00	5.7	168	12.2	1.4	30.9	
11/15/2015 2:00	7	177	12	1.4	30.9	
11/15/2015 3:00	4.8	180	11.3	18.8	30.9	
11/15/2015 4:00	4.9	170	11	50.7	30.9	
11/15/2015 5:00	5.1	163	10.6	52.1	30.9	
11/15/2015 6:00	4.7	157	9.9	28	30.9	
11/15/2015 7:00	4.4	159	9.3	28.8	30.9	
11/15/2015 8:00	3.8	166	8.5	45.7	30.9	
11/15/2015 9:00	2.8	161	9.1	31.7	30.9	
11/15/2015 10:00	4.2	166	11.6	12.4	30.9	
11/15/2015 11:00	8.3	172	14.2	1.5	30.9	
11/15/2015 12:00	10	179	16.4	1.5	30.9	
11/15/2015 13:00	11.5	174	17.7	1.5	30.9	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/15/2015 14:00	9.3	167	18.9	1.5	30.9	
11/15/2015 15:00	10	165	17.7	1.5	30.9	
11/15/2015 16:00	9.3	163	18.1	1.5	30.9	
11/15/2015 17:00	7.8	148	17.6	1.5	30.8	
11/15/2015 18:00	5.7	136	16.7	1.5	30.9	
11/15/2015 19:00	6.1	136	15.9	1.4	30.9	
11/15/2015 20:00	7.2	142	15.3	1.4	30.9	
11/15/2015 21:00	4.8	135	14.2	1.4	30.9	
11/15/2015 22:00	5.1	128	13.5	1.4	30.9	
11/15/2015 23:00	5.2	146	13.3	1.4	30.9	
11/16/2015 0:00	6	149	13.7	1.4	30.8	
11/16/2015 1:00	7.1	150	13.6	1.4	30.9	
11/16/2015 2:00	6.9	143	13.3	1.4	30.8	
11/16/2015 3:00	6.4	146	13.5	1.4	30.8	
11/16/2015 4:00	8.1	140	13.5	1.4	30.8	
11/16/2015 5:00	8.3	147	13.2	1.4	30.8	
11/16/2015 6:00	7.8	158	13.2	1.4	30.8	
11/16/2015 7:00	8.4	166	11.7	1.4	30.8	
11/16/2015 8:00	7.3	138	11.3	1.4	30.8	
11/16/2015 9:00	9	142	11.3	1.4	30.8	
11/16/2015 10:00	9.1	141	10.2	21.2	30.8	
11/16/2015 11:00	6	129	9.5	95.3	30.8	
11/16/2015 12:00	6.6	128	9.6	83.8	30.8	
11/16/2015 13:00	8.3	130	9.8	1.4	30.8	
11/16/2015 14:00	7.3	131	9.6	82.2	30.8	
11/16/2015 15:00	6.4	118	9.5	64.5	30.8	
11/16/2015 16:00	6.7	115	9.7	1.4	30.8	
11/16/2015 17:00	6.9	119	10	1.4	30.8	
11/16/2015 18:00	6.7	112	10.2	1.4	30.8	
11/16/2015 19:00	7.1	116	10.6	1.4	30.8	
11/16/2015 20:00	6.6	111	10.6	1.4	30.8	
11/16/2015 21:00	7.3	114	10.9	1.4	30.8	
11/16/2015 22:00	6.1	116	10.8	1.4	30.8	
11/16/2015 23:00	6.7	110	10.9	1.4	30.8	
11/17/2015 0:00	7.5	107	11.3	1.4	30.8	
11/17/2015 1:00	7.2	110	11.6	1.4	30.8	
11/17/2015 2:00	6.8	108	11.6	1.4	30.8	
11/17/2015 3:00	7.5	99	11.6	1.4	30.7	
11/17/2015 4:00	7.5	111	12.1	1.4	30.7	
11/17/2015 5:00	5.8	120	12.9	1.4	30.7	
11/17/2015 6:00	7.5	113	13.4	1.4	30.7	
11/17/2015 7:00	7.5	105	13.3	1.4	30.7	
11/17/2015 8:00	9.4	102	13.7	1.4	30.7	
11/17/2015 9:00	8.6	109	14.5	1.4	30.7	
11/17/2015 10:00	9.5	112	15.5	1.5	30.7	
11/17/2015 11:00	9.3	117	16.2	1.5	30.7	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/17/2015 12:00	10.1	118	16.4	1.5	30.7	
11/17/2015 13:00	11.4	120	16.9	1.5	30.6	
11/17/2015 14:00	10.2	120	17.2	1.5	30.6	
11/17/2015 15:00	10.6	124	17.8	1.5	30.6	
11/17/2015 16:00	9.9	131	18.3	1.5	30.6	
11/17/2015 17:00	9.2	130	18.6	1.5	30.6	
11/17/2015 18:00	9.8	122	18.9	1.5	30.6	
11/17/2015 19:00	10	121	18.7	1.5	30.6	
11/17/2015 20:00	8.5	120	18.2	1.5	30.6	
11/17/2015 21:00	8.5	159	17.9	1.5	30.6	
11/17/2015 22:00	8	122	17.7	1.5	30.6	
11/17/2015 23:00	8.6	105	17.5	1.5	30.6	
11/18/2015 0:00	11.8	103	17.5	1.5	30.6	
11/18/2015 1:00	13.1	108	17.7	1.5	30.6	
11/18/2015 2:00	11.4	121	17.8	1.5	30.6	
11/18/2015 3:00	11.4	138	18	1.5	30.6	
11/18/2015 4:00	15.6	172	17.6	1.5	30.6	
11/18/2015 5:00	12.6	173	16.5	1.5	30.6	
11/18/2015 6:00	10.1	151	15.2	1.5	30.6	
11/18/2015 7:00	10.1	150	14.5	1.5	30.6	
11/18/2015 8:00	11.5	153	14.2	1.4	30.6	
11/18/2015 9:00	11	162	14	1.4	30.6	
11/18/2015 10:00	14.8	169	13.9	1.4	30.6	
11/18/2015 11:00	16.1	172	13.8	1.5	30.6	
11/18/2015 12:00	17.4	180	14.3	1.5	30.6	
11/18/2015 13:00	20.2	192	15.2	1.5	30.6	
11/18/2015 14:00	18.6	195	15.1	1.5	30.6	
11/18/2015 15:00	17.3	191	15.6	3.3	30.6	
11/18/2015 16:00	15.6	198	15.7	1.5	30.6	
11/18/2015 17:00	16.5	208	14.9	1.5	30.6	
11/18/2015 18:00	13.1	213	13.7	1.5	30.6	
11/18/2015 19:00	10.3	210	12.3	8.4	30.7	
11/18/2015 20:00	10.5	214	11.5	1.4	30.7	
11/18/2015 21:00	8.6	198	10.5	1.4	30.7	
11/18/2015 22:00	7.2	183	10	1.4	30.7	
11/18/2015 23:00	8.2	173	10.1	1.4	30.7	
11/19/2015 0:00	8.8	170	10	1.4	30.7	
11/19/2015 1:00	9.8	176	9.9	1.4	30.7	
11/19/2015 2:00	8.3	185	10.1	1.4	30.7	
11/19/2015 3:00	12.1	203	10.8	6	30.7	
11/19/2015 4:00	11.1	228	10.7	1.4	30.7	
11/19/2015 5:00	9.1	237	10.2	1.4	30.7	
11/19/2015 6:00	8	246	9.7	1.4	30.8	
11/19/2015 7:00	6.3	245	8.9	1.4	30.8	
11/19/2015 8:00	10	252	8.5	1.4	30.8	
11/19/2015 9:00	12.6	267	7.8	1.4	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/19/2015 10:00	11.2	264	8	1.5	30.8	
11/19/2015 11:00	13.2	274	8.3	1.5	30.8	
11/19/2015 12:00	12.3	264	8.7	1.5	30.9	
11/19/2015 13:00	10.6	251	10	1.5	30.9	
11/19/2015 14:00	12	250	10.7	1.5	30.8	
11/19/2015 15:00	12.7	238	11.5	1.5	30.9	
11/19/2015 16:00	13.6	255	11.9	1.5	30.9	
11/19/2015 17:00	10.9	265	11.8	1.4	30.9	
11/19/2015 18:00	11.2	243	11.2	1.4	30.9	
11/19/2015 19:00	8.1	230	10	1.4	30.9	
11/19/2015 20:00	4.1	234	8.7	7.8	30.9	
11/19/2015 21:00	4.6	240	8.1	19.4	30.9	
11/19/2015 22:00	3.4	215	7.1	25.8	30.9	
11/19/2015 23:00	1.4	159	5.6	41.2	30.9	
11/20/2015 0:00	1.4	148	4.2	52.6	30.9	
11/20/2015 1:00	3.6	179	4.1	46.8	30.9	
11/20/2015 2:00	4.4	187	3.8	65.2	30.9	
11/20/2015 3:00	5	187	3.3	67.7	30.9	
11/20/2015 4:00	2.9	181	2.6	72	30.9	
11/20/2015 5:00	2.3	169	1.9	70.4	30.9	
11/20/2015 6:00	0.9	121	1.1	71.1	30.9	
11/20/2015 7:00	1.7	127	0.9	73	30.9	
11/20/2015 8:00	1.5	155	1.1	70.2	30.9	
11/20/2015 9:00	0.9	135	2.9	63	30.9	
11/20/2015 10:00	1.5	179	6.8	25.2	30.9	
11/20/2015 11:00	4	100	9.5	15.6	30.9	
11/20/2015 12:00	6.4	111	10.6	16.7	30.9	
11/20/2015 13:00	6.6	97	11.3	1.5	30.9	
11/20/2015 14:00	7.6	95	11.6	1.4	30.9	
11/20/2015 15:00	9.4	100	11.5	1.4	30.9	
11/20/2015 16:00	8.9	97	11.5	1.4	30.8	
11/20/2015 17:00	8.8	104	11.7	1.4	30.8	
11/20/2015 18:00	7.7	106	11.4	1.4	30.8	
11/20/2015 19:00	6.8	96	11.3	1.4	30.8	
11/20/2015 20:00	8	108	11	1.4	30.8	
11/20/2015 21:00	7	111	10.6	1.4	30.8	
11/20/2015 22:00	7.3	100	10.2	1.4	30.8	
11/20/2015 23:00	5	62	9.2	6.6	30.8	
11/21/2015 0:00	7.3	104	8	32.1	30.8	
11/21/2015 1:00	5	102	8.4	1.4	30.8	
11/21/2015 2:00	3.9	88	7.5	17.4	30.8	
11/21/2015 3:00	3.3	96	6.5	78	30.8	
11/21/2015 4:00	1.9	55	6	83.7	30.8	
11/21/2015 5:00	2.5	23	5.6	90.8	30.8	
11/21/2015 6:00	2.3	88	5.4	93.1	30.8	
11/21/2015 7:00	4	137	5.4	93.6	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/21/2015 8:00	4	158	5.4	97.7	30.8	
11/21/2015 9:00	8.2	229	5.7	51.4	30.8	
11/21/2015 10:00	13.6	262	5.3	66.3	30.8	
11/21/2015 11:00	16.3	270	2	95	30.8	
11/21/2015 12:00	18.5	288	1.2	92.6	30.8	
11/21/2015 13:00	20.2	296	1.3	84.6	30.8	
11/21/2015 14:00	19.6	299	1.2	81.5	30.8	
11/21/2015 15:00	16.9	295	1.3	80.1	30.8	
11/21/2015 16:00	16.3	301	1.3	75.7	30.8	
11/21/2015 17:00	14.7	294	2	63.1	30.9	
11/21/2015 18:00	13	288	1.5	56.2	30.9	
11/21/2015 19:00	11.1	292	0.6	53.8	30.9	
11/21/2015 20:00	11.5	285	-0.2	52.5	30.9	
11/21/2015 21:00	11.3	288	-0.9	51.7	30.9	
11/21/2015 22:00	8.6	289	-1.6	52.3	30.9	
11/21/2015 23:00	9.6	291	-2.1	51.6	30.9	
11/22/2015 0:00	7.7	294	-2.6	54.7	30.9	
11/22/2015 1:00	6.8	293	-3.1	57.8	30.9	
11/22/2015 2:00	3.9	297	-3.6	61	30.9	
11/22/2015 3:00	2.9	256	-3.8	64.3	30.9	
11/22/2015 4:00	2.4	203	-4.2	68.5	30.9	
11/22/2015 5:00	2.2	181	-4.5	70.5	30.9	
11/22/2015 6:00	3.2	174	-4.4	72.5	30.9	
11/22/2015 7:00	3.2	188	-4.6	77.4	30.9	
11/22/2015 8:00	2.2	132	-5.1	80.8	30.9	
11/22/2015 9:00	3.2	139	-4.3	75	30.9	
11/22/2015 10:00	5.1	171	-2.9	70.5	30.9	
11/22/2015 11:00	5.5	186	-1.1	62.1	30.9	
11/22/2015 12:00	5.1	171	1.2	48.7	30.9	
11/22/2015 13:00	5.9	165	3	42.6	30.9	
11/22/2015 14:00	6.6	180	3.8	39.6	30.9	
11/22/2015 15:00	7	159	5.2	30.4	30.9	
11/22/2015 16:00	7.4	156	5.4	35.3	30.8	
11/22/2015 17:00	6.6	132	5.7	39.5	30.8	
11/22/2015 18:00	6.9	140	5.1	39.7	30.8	
11/22/2015 19:00	3.6	119	3.5	50	30.8	
11/22/2015 20:00	5.5	120	2.8	55.9	30.8	
11/22/2015 21:00	6.7	132	2.5	55.7	30.8	
11/22/2015 22:00	6.4	142	2.4	53.8	30.8	
11/22/2015 23:00	6.2	147	2	54.1	30.8	
11/23/2015 0:00	8.1	163	2.6	47.1	30.8	
11/23/2015 1:00	7.9	166	2.7	48.5	30.8	
11/23/2015 2:00	8.4	164	2.4	51.1	30.8	
11/23/2015 3:00	9.9	173	2.7	53.1	30.8	
11/23/2015 4:00	6.1	189	2.3	58.1	30.8	
11/23/2015 5:00	4.9	173	2.2	58.9	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/23/2015 6:00	7.3	191	2.5	62.8	30.8	
11/23/2015 7:00	7.7	197	2.6	65.7	30.8	
11/23/2015 8:00	6.8	197	2.4	68.1	30.8	
11/23/2015 9:00	7	202	2.8	69.1	30.8	
11/23/2015 10:00	8.3	206	4.3	67.3	30.8	
11/23/2015 11:00	8.1	211	6.8	55.5	30.8	
11/23/2015 12:00	9.6	212	8.8	55.7	30.9	
11/23/2015 13:00	9	199	10.2	14.2	30.9	
11/23/2015 14:00	7.4	202	11.9	1.5	30.8	
11/23/2015 15:00	7.4	200	13.5	1.5	30.8	
11/23/2015 16:00	7.2	225	14.8	1.5	30.8	
11/23/2015 17:00	7.6	223	15	1.5	30.8	
11/23/2015 18:00	4.7	201	14.3	1.4	30.8	
11/23/2015 19:00	2.5	172	12.1	14.6	30.8	
11/23/2015 20:00	2.4	155	10.8	41.6	30.9	
11/23/2015 21:00	2.1	166	9.3	55	30.9	
11/23/2015 22:00	1.7	165	7.5	64.2	30.9	
11/23/2015 23:00	1.8	147	6.5	49.7	30.9	
11/24/2015 0:00	0.9	136	5.3	52.7	30.9	
11/24/2015 1:00	0.8	63	4.1	79.6	30.9	
11/24/2015 2:00	1.6	127	3.9	80	30.9	
11/24/2015 3:00	1.4	58	2.9	81	30.9	
11/24/2015 4:00	1.3	137	2.7	83.8	30.9	
11/24/2015 5:00	2.2	129	2.7	84.2	30.9	
11/24/2015 6:00	1.4	91	2.4	85.2	30.9	
11/24/2015 7:00	1.2	98	2.1	86.9	30.9	
11/24/2015 8:00	1.1	72	2.3	86.1	30.9	
11/24/2015 9:00	1.1	84	2.5	85.4	30.9	
11/24/2015 10:00	1.2	149	5.1	63	30.9	
11/24/2015 11:00	2.8	151	9.3	40.6	30.9	
11/24/2015 12:00	2.8	131	12.4	40.5	30.9	
11/24/2015 13:00	4.3	134	14.7	13.5	30.9	
11/24/2015 14:00	6.2	155	16.7	1.5	30.9	
11/24/2015 15:00	5.5	117	16.9	1.5	30.8	
11/24/2015 16:00	6.1	122	17.8	1.5	30.9	
11/24/2015 17:00	6.8	120	17.6	1.5	30.8	
11/24/2015 18:00	7.1	129	16.6	1.5	30.8	
11/24/2015 19:00	5.8	119	14.8	1.4	30.8	
11/24/2015 20:00	6.6	116	13.1	1.4	30.9	
11/24/2015 21:00	7.1	126	11.8	1.4	30.8	
11/24/2015 22:00	6.9	135	10.7	53.8	30.9	
11/24/2015 23:00	8.4	143	10.7	55.7	30.9	
11/25/2015 0:00	7.6	136	10.1	57.1	30.9	
11/25/2015 1:00	8.5	137	9.5	39.3	30.9	
11/25/2015 2:00	5.6	118	8.5	9.2	30.9	
11/25/2015 3:00	5.5	112	8	50.9	30.9	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/25/2015 4:00	6.6	118	8.1	64.2	30.9	
11/25/2015 5:00	7.2	125	7.9	64.5	30.9	
11/25/2015 6:00	9.1	143	7.5	66.3	30.9	
11/25/2015 7:00	8	135	7.3	66.9	30.9	
11/25/2015 8:00	10.4	137	8.1	36.4	30.9	
11/25/2015 9:00	9.6	136	8.6	10.3	30.9	
11/25/2015 10:00	7.4	133	8.9	7.4	30.9	
11/25/2015 11:00	10.1	140	10.2	1.4	30.9	
11/25/2015 12:00	9.2	148	10.7	1.4	30.9	
11/25/2015 13:00	8.6	147	11.9	1.4	30.9	
11/25/2015 14:00	9.4	159	13.7	1.4	30.8	
11/25/2015 15:00	8.8	154	14.3	1.4	30.8	
11/25/2015 16:00	9.1	158	14.9	1.4	30.8	
11/25/2015 17:00	8.7	147	14.2	1.4	30.8	
11/25/2015 18:00	9.7	144	14.3	1.4	30.9	
11/25/2015 19:00	9.4	142	14.2	1.4	30.8	
11/25/2015 20:00	9.7	144	13.9	1.4	30.9	
11/25/2015 21:00	10.1	146	13.5	1.4	30.9	
11/25/2015 22:00	8.7	152	13.8	1.4	30.9	
11/25/2015 23:00	8.4	146	14	1.4	30.9	
11/26/2015 0:00	10.4	147	14.1	1.4	30.9	
11/26/2015 1:00	12.5	147	14.3	1.4	30.9	
11/26/2015 2:00	11.1	147	14.3	1.4	30.9	
11/26/2015 3:00	10.3	154	14.5	1.4	30.9	
11/26/2015 4:00	11.3	154	15	1.4	30.9	
11/26/2015 5:00	10.4	156	15.2	1.4	30.9	
11/26/2015 6:00	11.1	153	15.3	1.4	30.9	
11/26/2015 7:00	10.5	155	15.5	1.5	30.9	
11/26/2015 8:00	11	150	15.5	1.5	30.9	
11/26/2015 9:00	10.8	150	15.4	1.5	30.9	
11/26/2015 10:00	12.7	158	16.3	1.5	30.9	
11/26/2015 11:00	13.4	162	17.6	1.5	30.9	
11/26/2015 12:00	14	161	18.6	1.5	30.9	
11/26/2015 13:00	12.7	158	19.9	1.5	30.9	
11/26/2015 14:00	15.7	172	20.8	1.5	30.9	
11/26/2015 15:00	14.6	168	20.2	1.5	30.9	
11/26/2015 16:00	13.7	161	19.5	1.5	30.9	
11/26/2015 17:00	13.5	158	17.7	1.5	30.9	
11/26/2015 18:00	10.3	156	16.8	1.5	30.9	
11/26/2015 19:00	10.1	157	16.6	1.5	30.9	
11/26/2015 20:00	12.3	153	16.6	1.5	30.9	
11/26/2015 21:00	10.9	152	16.7	1.5	30.9	
11/26/2015 22:00	8.3	145	16.6	1.5	30.8	
11/26/2015 23:00	8.8	142	16.6	1.5	30.9	
11/27/2015 0:00	9	144	17.1	1.5	30.8	
11/27/2015 1:00	10.3	145	18.1	1.5	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/27/2015 2:00	10.1	152	18.1	1.5	30.8	
11/27/2015 3:00	9.3	153	18	1.5	30.9	
11/27/2015 4:00	7.8	150	16.8	1.5	30.8	
11/27/2015 5:00	5.2	228	15.8	1.5	30.9	
11/27/2015 6:00	4.9	314	12.4	8.8	30.9	
11/27/2015 7:00	6.1	335	11.6	1.4	30.9	
11/27/2015 8:00	3.5	335	11.2	8.8	30.9	
11/27/2015 9:00	8.4	291	8.3	19.3	30.9	
11/27/2015 10:00	10.4	311	6.8	71.2	30.9	
11/27/2015 11:00	10.1	317	6.2	93.9	30.9	
11/27/2015 12:00	10.5	334	5.9	93.7	30.9	
11/27/2015 13:00	10	343	6.1	95.5	30.9	
11/27/2015 14:00	9.8	345	6.3	95.9	30.9	
11/27/2015 15:00	10.9	342	5.8	85.9	30.9	
11/27/2015 16:00	11.4	337	5.5	35.3	30.9	
11/27/2015 17:00	12.9	345	5.1	94.8	30.9	
11/27/2015 18:00	11.3	349	4.9	96.9	30.9	
11/27/2015 19:00	11.3	344	4.9	96.9	30.9	
11/27/2015 20:00	10	346	4.8	96.9	30.9	
11/27/2015 21:00	9.9	342	4.7	97.4	30.9	
11/27/2015 22:00	10.2	340	4.6	96.7	30.9	
11/27/2015 23:00	11	345	4.4	95.9	30.9	
11/28/2015 0:00	12	349	4	94.7	30.9	
11/28/2015 1:00	11.9	345	3.7	91.5	30.9	
11/28/2015 2:00	12.3	345	3.4	93.9	30.9	
11/28/2015 3:00	12.5	349	2.9	95.1	30.9	
11/28/2015 4:00	12	348	2.8	94.5	30.9	
11/28/2015 5:00	11.5	350	2.6	96.9	30.9	
11/28/2015 6:00	9.8	354	2.5	97.2	30.9	
11/28/2015 7:00	9.3	348	2.5	96.5	30.9	
11/28/2015 8:00	11	339	2.5	94	30.9	
11/28/2015 9:00	10.9	342	2.4	93.4	30.9	
11/28/2015 10:00	11.6	351	2.3	94.8	30.9	
11/28/2015 11:00	10.4	348	2.3	93.6	30.9	
11/28/2015 12:00	10.3	350	2.4	93.5	30.9	
11/28/2015 13:00	11.1	350	2.6	92.2	30.9	
11/28/2015 14:00	9.8	343	3	25.8	30.9	
11/28/2015 15:00	9.1	334	3.3	74.2	30.9	
11/28/2015 16:00	9.9	341	3.3	55.7	30.9	
11/28/2015 17:00	10.5	346	3.6	1.4	30.9	
11/28/2015 18:00	9.2	349	3.6	1.4	30.9	
11/28/2015 19:00	8.7	347	3.6	1.4	30.9	
11/28/2015 20:00	7.1	355	3.5	1.4	30.9	
11/28/2015 21:00	7.7	344	3.6	1.4	30.9	
11/28/2015 22:00	10	343	3.7	1.4	30.9	
11/28/2015 23:00	9.2	353	3.5	1.4	30.9	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/29/2015 0:00	7.1	352	3.4	1.4	30.9	
11/29/2015 1:00	7.6	345	3.5	1.4	30.9	
11/29/2015 2:00	7.9	343	3.3	1.4	30.9	
11/29/2015 3:00	6.6	343	3.2	1.4	30.9	
11/29/2015 4:00	7.7	349	3.2	3.5	30.9	
11/29/2015 5:00	9.4	352	3	91.1	30.9	
11/29/2015 6:00	10.2	349	2.9	90.8	30.9	
11/29/2015 7:00	8.7	353	2.8	90.8	30.9	
11/29/2015 8:00	7.6	351	2.8	90.7	30.9	
11/29/2015 9:00	7.1	341	2.8	89.9	30.9	
11/29/2015 10:00	8.3	349	2.8	89.5	30.9	
11/29/2015 11:00	7.9	355	2.9	74.9	30.9	
11/29/2015 12:00	8.1	357	3.3	1.4	30.9	
11/29/2015 13:00	7.1	9	3.8	1.4	30.9	
11/29/2015 14:00	8	349	4.2	1.4	30.9	
11/29/2015 15:00	6.3	351	4.3	1.4	30.9	
11/29/2015 16:00	5.2	355	4.4	1.4	30.9	
11/29/2015 17:00	5.9	355	4.4	1.4	30.9	
11/29/2015 18:00	6.3	359	4.3	1.4	30.8	
11/29/2015 19:00	6.7	351	4.6	1.4	30.9	
11/29/2015 20:00	6	12	4.6	1.4	30.9	
11/29/2015 21:00	3.8	20	4.7	44.8	30.9	
11/29/2015 22:00	4.4	12	4.4	1.4	30.9	
11/29/2015 23:00	4	8	4.3	1.4	30.8	
11/30/2015 0:00	3.5	2	4.3	1.4	30.9	
11/30/2015 1:00	3.4	4	4.1	1.4	30.8	
11/30/2015 2:00	3.9	6	3.9	84.1	30.8	
11/30/2015 3:00	3.1	11	3.7	96.4	30.8	
11/30/2015 4:00	4.1	16	3.5	36.9	30.8	
11/30/2015 5:00	2.8	37	3.7	1.4	30.8	
11/30/2015 6:00	2.6	53	3.9	1.4	30.8	
11/30/2015 7:00	3.2	19	4	1.4	30.8	
11/30/2015 8:00	3.6	358	3.8	1.4	30.8	
11/30/2015 9:00	3.2	15	3.9	1.4	30.8	
11/30/2015 10:00	3.3	47	4.2	1.4	30.8	
11/30/2015 11:00	3.7	52	4.6	1.4	30.8	
11/30/2015 12:00	4.4	74	5	37.5	30.8	
11/30/2015 13:00	5.1	88	5.3	43	30.8	
11/30/2015 14:00	4.4	106	5.9	81.6	30.8	
11/30/2015 15:00	4.1	105	6.4	95.7	30.8	
11/30/2015 16:00	4.1	98	6.7	79.6	30.8	
11/30/2015 17:00	3.3	116	6.9	1.4	30.7	
11/30/2015 18:00	3	140	7	1.4	30.7	
11/30/2015 19:00	2.8	130	7.1	1.4	30.8	
11/30/2015 20:00	3.5	127	7.2	40.4	30.7	
11/30/2015 21:00	4.5	145	7.4	1.4	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
11/30/2015 22:00	4.1	149	7.6	1.4	30.7	
11/30/2015 23:00	4.1	155	7.7	1.4	30.7	
12/1/2015 0:00	4.1	182	7.9	1.4	30.7	
12/1/2015 1:00	5.1	204	7.8	1.4	30.7	
12/1/2015 2:00	10	235	7.9	1.4	30.7	
12/1/2015 3:00	11.3	235	7.3	1.4	30.8	
12/1/2015 4:00	12.8	232	6.3	61.1	30.7	
12/1/2015 5:00	12	236	5.5	81.1	30.8	
12/1/2015 6:00	9	245	3.7	16.5	30.8	
12/1/2015 7:00	6.4	210	2.7	33.1	30.8	
12/1/2015 8:00	6.1	186	2.2	86.8	30.8	
12/1/2015 9:00	6.5	186	2.1	87.4	30.8	
12/1/2015 10:00	7.4	187	2.6	13.5	30.8	
12/1/2015 11:00	10.1	202	4	1.4	30.8	
12/1/2015 12:00	11.6	208	5.3	7	30.8	
12/1/2015 13:00	10.5	199	6.8	5.4	30.8	
12/1/2015 14:00	10.9	197	8.2	1.5	30.7	
12/1/2015 15:00	9.4	195	9.5	23.4	30.7	
12/1/2015 16:00	9.9	188	10.4	43.3	30.7	
12/1/2015 17:00	8.8	202	10.7	35.7	30.7	
12/1/2015 18:00	6.3	161	9.6	26.3	30.7	
12/1/2015 19:00	6.1	134	8.2	50.7	30.7	
12/1/2015 20:00	7.2	139	7.8	5.7	30.7	
12/1/2015 21:00	6.5	141	7.2	50	30.7	
12/1/2015 22:00	4.8	170	6.2	42.9	30.7	
12/1/2015 23:00	4.5	170	5.4	60.5	30.7	
12/2/2015 0:00	6.4	177	5.2	68.3	30.7	
12/2/2015 1:00	7.7	178	5	70.2	30.7	
12/2/2015 2:00	6.3	222	5.1	56.9	30.7	
12/2/2015 3:00	4.2	280	4.8	57.9	30.7	
12/2/2015 4:00	5.9	258	4.4	18.8	30.7	
12/2/2015 5:00	6.8	261	4	1.4	30.7	
12/2/2015 6:00	8.7	257	2.8	47.5	30.7	
12/2/2015 7:00	10.2	239	2.3	77.2	30.7	
12/2/2015 8:00	10.8	228	2	72.4	30.7	
12/2/2015 9:00	10.8	224	2.1	74.4	30.7	
12/2/2015 10:00	13.1	226	2.5	60.9	30.7	
12/2/2015 11:00	13.4	236	3.4	1.4	30.7	
12/2/2015 12:00	13.1	244	3.7	1.4	30.8	
12/2/2015 13:00	12.7	240	4	1.4	30.8	
12/2/2015 14:00	12.2	240	5	1.4	30.8	
12/2/2015 15:00	13.6	241	4.9	1.4	30.8	
12/2/2015 16:00	13	246	4.6	1.4	30.8	
12/2/2015 17:00	13.1	250	4.4	1.4	30.8	
12/2/2015 18:00	11.2	261	4.3	1.4	30.8	
12/2/2015 19:00	11.1	254	4.3	1.4	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/2/2015 20:00	8.9	266	4.3	1.4	30.8	
12/2/2015 21:00	8.8	278	4.1	5.2	30.8	
12/2/2015 22:00	6.2	326	2.5	88.8	30.8	
12/2/2015 23:00	2.5	296	1.9	92.5	30.8	
12/3/2015 0:00	2.3	290	1.7	89.9	30.9	
12/3/2015 1:00	2.3	266	1.9	86.2	30.9	
12/3/2015 2:00	2.2	248	1.5	86.2	30.9	
12/3/2015 3:00	3.3	239	2	86.4	30.9	
12/3/2015 4:00	5.7	296	2.5	9.7	30.9	
12/3/2015 5:00	9	319	2.1	1.4	30.9	
12/3/2015 6:00	5.4	318	1.8	1.4	30.9	
12/3/2015 7:00	5.9	310	1.8	1.4	30.9	
12/3/2015 8:00	6	308	1.9	1.4	30.9	
12/3/2015 9:00	4.3	308	2	1.4	30.9	
12/3/2015 10:00	3.9	314	2.2	1.4	30.9	
12/3/2015 11:00	3.3	287	2.8	1.4	30.9	
12/3/2015 12:00	3.1	328	4	1.4	30.9	
12/3/2015 13:00	3.7	208	5.8	13.4	31	
12/3/2015 14:00	4.2	225	6.3	21.7	30.9	
12/3/2015 15:00	3.2	194	7.9	5.2	30.9	
12/3/2015 16:00	2.6	273	8.8	3.9	30.9	
12/3/2015 17:00	2.9	335	8.7	24.3	30.9	
12/3/2015 18:00	3.1	3	7.2	8.5	30.9	
12/3/2015 19:00	2.7	36	5.3	1.4	31	
12/3/2015 20:00	3.4	87	4.5	1.4	30.9	
12/3/2015 21:00	2.2	115	3.8	13	31	
12/3/2015 22:00	1.5	132	2.9	84.5	31	
12/3/2015 23:00	2.1	130	2.4	84.7	31	
12/4/2015 0:00	2.3	128	1.9	88	31	
12/4/2015 1:00	3.3	148	1.7	88.5	31	
12/4/2015 2:00	4.1	163	1.5	89	31	
12/4/2015 3:00	2.6	164	0.9	91.3	31	
12/4/2015 4:00	1.2	110	0	95.3	31	
12/4/2015 5:00	1.6	104	-0.4	97.7	31	
12/4/2015 6:00	1.5	87	-1.1	97.3	31	
12/4/2015 7:00	1.4	114	-1.2	97.5	31	
12/4/2015 8:00	1.2	103	-1.4	98.3	31	
12/4/2015 9:00	1.3	131	-0.6	88.7	31	
12/4/2015 10:00	1.6	133	3.2	33.2	31	
12/4/2015 11:00	5	187	4.5	23.7	31	
12/4/2015 12:00	5.2	215	6.7	13	31	
12/4/2015 13:00	4.2	205	9.2	1.5	31	
12/4/2015 14:00	6	166	10.7	1.5	31	
12/4/2015 15:00	5.2	133	11.9	1.5	31	
12/4/2015 16:00	5.7	124	11.9	1.5	31	
12/4/2015 17:00	5.2	113	11.2	1.4	31	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/4/2015 18:00	5.7	99	9.6	12.9	31	
12/4/2015 19:00	4.2	101	7.9	14.7	31	
12/4/2015 20:00	4.2	104	6.9	1.4	31	
12/4/2015 21:00	4.5	105	6.2	1.4	31	
12/4/2015 22:00	4.4	107	5.6	1.4	31	
12/4/2015 23:00	3.5	100	4.9	1.4	31	
12/5/2015 0:00	3.6	105	4.3	1.4	31	
12/5/2015 1:00	3.1	111	3.8	16.5	31	
12/5/2015 2:00	2.9	124	3.1	75.5	31	
12/5/2015 3:00	2.7	129	2.6	85.9	31	
12/5/2015 4:00	2.7	120	2	73.9	31	
12/5/2015 5:00	2.9	113	1.8	72	31	
12/5/2015 6:00	2.9	129	1.3	90.8	31	
12/5/2015 7:00	2.9	99	0.8	93.9	31	
12/5/2015 8:00	2.3	101	0.3	96.8	31	
12/5/2015 9:00	2.8	96	0.3	98.4	31	
12/5/2015 10:00	4.6	94	1.1	89.8	31	
12/5/2015 11:00	3.7	106	3.5	61.8	31	
12/5/2015 12:00	6.6	137	6.1	37.9	31	
12/5/2015 13:00	7.2	134	8.2	4.7	31	
12/5/2015 14:00	4.8	114	10.6	11.2	31	
12/5/2015 15:00	6.1	105	11.3	1.5	31	
12/5/2015 16:00	5.2	117	12.1	19	31	
12/5/2015 17:00	5.6	119	11.5	20.5	31	
12/5/2015 18:00	4.9	102	9.7	39.8	31	
12/5/2015 19:00	5.3	87	7.5	70.6	31	
12/5/2015 20:00	4.1	77	6.2	77	31	
12/5/2015 21:00	4.8	94	6.2	58.1	31	
12/5/2015 22:00	4.3	111	6.3	63.8	30.9	
12/5/2015 23:00	2.5	116	5.5	40.8	31	
12/6/2015 0:00	2.7	111	4.7	1.4	31	
12/6/2015 1:00	2.8	122	4.3	24.6	31	
12/6/2015 2:00	2.4	105	4	64.6	30.9	
12/6/2015 3:00	1.9	58	4.3	1.4	30.9	
12/6/2015 4:00	3.5	167	4.5	1.4	30.9	
12/6/2015 5:00	2.1	67	2.6	25.7	30.9	
12/6/2015 6:00	1.4	102	1.5	83.6	30.9	
12/6/2015 7:00	1.8	116	1.1	92.3	30.9	
12/6/2015 8:00	1.6	127	0.9	91.9	30.9	
12/6/2015 9:00	1.5	203	1.6	89.1	30.9	
12/6/2015 10:00	2.5	173	4.1	79.1	30.9	
12/6/2015 11:00	5.3	192	6.4	41.9	30.9	
12/6/2015 12:00	6.6	197	8.1	1.4	30.9	
12/6/2015 13:00	6.6	196	8.7	1.4	30.9	
12/6/2015 14:00	8.2	206	9.2	1.4	30.9	
12/6/2015 15:00	7.1	200	9.3	1.4	30.9	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/6/2015 16:00	7.6	202	9.2	1.4	30.9	
12/6/2015 17:00	6.9	217	8.6	1.4	30.9	
12/6/2015 18:00	5	190	8.1	1.4	30.9	
12/6/2015 19:00	5.7	207	7.9	1.4	30.9	
12/6/2015 20:00	4.8	212	8.2	1.4	30.9	
12/6/2015 21:00	4.1	199	7.9	1.4	30.9	
12/6/2015 22:00	4.8	237	8.3	1.4	30.9	
12/6/2015 23:00	4.6	251	8.3	1.4	30.9	
12/7/2015 0:00	4.6	283	8	1.4	30.9	
12/7/2015 1:00	3.2	280	7.6	1.4	30.9	
12/7/2015 2:00	3.8	308	7.2	1.4	30.9	
12/7/2015 3:00	3.4	284	7.2	5.8	30.9	
12/7/2015 4:00	4	296	6.3	1.4	30.9	
12/7/2015 5:00	1.4	228	5.1	1.4	30.9	
12/7/2015 6:00	1.8	237	4.8	1.4	30.9	
12/7/2015 7:00	1.8	207	4.9	1.4	30.9	
12/7/2015 8:00	2.3	199	4.8	1.4	30.9	
12/7/2015 9:00	3.6	194	4.9	1.4	30.9	
12/7/2015 10:00	2.8	189	5.6	1.4	30.9	
12/7/2015 11:00	3.5	187	6.2	1.4	30.9	
12/7/2015 12:00	4.6	177	7	1.4	30.9	
12/7/2015 13:00	5.6	159	7.5	1.4	30.9	
12/7/2015 14:00	6.6	180	7.3	1.4	30.9	
12/7/2015 15:00	6.2	218	7.5	1.4	30.9	
12/7/2015 16:00	4	151	8.5	1.4	30.9	
12/7/2015 17:00	2.6	119	9.3	1.4	30.8	
12/7/2015 18:00	3.7	101	8.9	1.4	30.8	
12/7/2015 19:00	2.2	135	7.3	1.4	30.8	
12/7/2015 20:00	4.1	101	6.4	1.4	30.8	
12/7/2015 21:00	3.3	109	6.1	1.4	30.8	
12/7/2015 22:00	5	130	6.5	1.4	30.8	
12/7/2015 23:00	5.7	143	6.5	1.4	30.8	
12/8/2015 0:00	6.1	150	6.2	1.4	30.8	
12/8/2015 1:00	4.2	159	5.9	1.4	30.8	
12/8/2015 2:00	4.4	146	5.5	1.4	30.8	
12/8/2015 3:00	5.4	154	5.9	1.4	30.8	
12/8/2015 4:00	5.1	155	5.7	1.4	30.8	
12/8/2015 5:00	6	165	6.2	1.4	30.8	
12/8/2015 6:00	7.3	167	6.8	1.4	30.8	
12/8/2015 7:00	8	172	7.1	1.4	30.8	
12/8/2015 8:00	6.9	171	7.1	1.4	30.8	
12/8/2015 9:00	6.9	174	7.2	1.4	30.8	
12/8/2015 10:00	8.2	173	9.1	1.4	30.8	
12/8/2015 11:00	10.1	182	10.9	1.5	30.8	
12/8/2015 12:00	8.6	184	13	1.5	30.8	
12/8/2015 13:00	7.7	177	14.7	1.5	30.7	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/8/2015 14:00	5.6	158	16	1.5	30.7	
12/8/2015 15:00	6.5	119	16.1	1.5	30.7	
12/8/2015 16:00	7.3	132	16.3	1.5	30.7	
12/8/2015 17:00	7.7	129	16.7	1.5	30.7	
12/8/2015 18:00	7.6	131	15.5	1.5	30.7	
12/8/2015 19:00	5.4	123	14.1	11.3	30.7	
12/8/2015 20:00	6	125	13.3	1.4	30.7	
12/8/2015 21:00	10.4	142	13.2	58.9	30.7	
12/8/2015 22:00	9.9	157	13.2	70.1	30.7	
12/8/2015 23:00	8	163	12.9	44.6	30.7	
12/9/2015 0:00	9.3	171	13	1.4	30.7	
12/9/2015 1:00	8.7	177	12.9	1.4	30.7	
12/9/2015 2:00	6.9	185	12.2	1.4	30.7	
12/9/2015 3:00	6.2	185	11.4	1.4	30.7	
12/9/2015 4:00	7.5	209	10.7	49.2	30.7	
12/9/2015 5:00	6.8	223	10.1	29.3	30.7	
12/9/2015 6:00	5.4	211	9.1	20.1	30.7	
12/9/2015 7:00	6.1	209	8.3	49.8	30.7	
12/9/2015 8:00	5.5	216	7.8	79.2	30.7	
12/9/2015 9:00	5.6	205	7.5	80.2	30.7	
12/9/2015 10:00	7.2	211	8.3	26.1	30.7	
12/9/2015 11:00	6.2	214	9.9	1.5	30.7	
12/9/2015 12:00	7.4	231	11.8	1.5	30.7	
12/9/2015 13:00	9.8	235	13.4	1.5	30.7	
12/9/2015 14:00	10.4	226	14	1.5	30.7	
12/9/2015 15:00	7.7	238	14.5	1.5	30.7	
12/9/2015 16:00	7.4	224	14.5	1.5	30.7	
12/9/2015 17:00	6.6	203	14.3	1.5	30.7	
12/9/2015 18:00	5.3	188	13.6	1.4	30.7	
12/9/2015 19:00	3.3	171	12.5	1.4	30.7	
12/9/2015 20:00	3.1	164	11.8	1.4	30.7	
12/9/2015 21:00	2.4	154	11.4	1.4	30.7	
12/9/2015 22:00	2.7	150	11	1.4	30.7	
12/9/2015 23:00	3	161	10.5	1.4	30.7	
12/10/2015 0:00	4.3	157	10.4	1.4	30.7	
12/10/2015 1:00	4.1	160	10.3	1.4	30.7	
12/10/2015 2:00	4.3	165	9.5	1.4	30.7	
12/10/2015 3:00	4.9	168	9.8	1.4	30.7	
12/10/2015 4:00	5.3	173	10	1.4	30.7	
12/10/2015 5:00	3.5	161	9.1	1.4	30.7	
12/10/2015 6:00	7.1	170	11.1	1.4	30.7	
12/10/2015 7:00	8.8	174	12.2	1.4	30.7	
12/10/2015 8:00	7.5	174	12	1.4	30.7	
12/10/2015 9:00	8	167	12.4	1.4	30.7	
12/10/2015 10:00	10.2	160	13.3	1.4	30.7	
12/10/2015 11:00	11.1	172	14.9	1.5	30.7	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/10/2015 12:00	10.8	183	15.4	1.5	30.7	
12/10/2015 13:00	10.8	176	16.8	2.2	30.7	
12/10/2015 14:00	13.8	183	19.6	34.8	30.6	
12/10/2015 15:00	11.8	190	19.5	34.4	30.6	
12/10/2015 16:00	8.1	220	19.8	38.4	30.6	
12/10/2015 17:00	11.4	258	19.6	30.2	30.6	
12/10/2015 18:00	7.7	277	17.2	31.6	30.7	
12/10/2015 19:00	5.2	284	15.3	19.3	30.7	
12/10/2015 20:00	3.1	285	14.2	37.2	30.7	
12/10/2015 21:00	2.7	258	13.1	31.3	30.6	
12/10/2015 22:00	3	193	11.5	38.1	30.7	
12/10/2015 23:00	3.9	177	10.7	27.7	30.7	
12/11/2015 0:00	2.6	185	9.1	49	30.7	
12/11/2015 1:00	3.3	173	8	80.6	30.7	
12/11/2015 2:00	1.6	161	7	78.7	30.7	
12/11/2015 3:00	2.3	174	5.8	88.9	30.7	
12/11/2015 4:00	1.6	172	4.7	92.6	30.7	
12/11/2015 5:00	1.1	128	4	94.4	30.7	
12/11/2015 6:00	1.6	156	3.6	95.4	30.7	
12/11/2015 7:00	1.7	155	3.3	95.4	30.7	
12/11/2015 8:00	1.2	80	3	96.8	30.7	
12/11/2015 9:00	1.8	133	4.3	71.3	30.7	
12/11/2015 10:00	1.6	33	5.4	13.1	30.7	
12/11/2015 11:00	4.1	91	8.6	4.4	30.7	
12/11/2015 12:00	5.9	123	9.8	1.4	30.7	
12/11/2015 13:00	8.2	136	10.7	1.4	30.7	
12/11/2015 14:00	5.9	141	12	1.4	30.7	
12/11/2015 15:00	6.6	129	13.9	1.4	30.7	
12/11/2015 16:00	6.1	121	15	1.5	30.7	
12/11/2015 17:00	7.2	141	16.1	20.8	30.7	
12/11/2015 18:00	8.2	143	16.5	1.5	30.7	
12/11/2015 19:00	6.5	139	16.1	1.5	30.7	
12/11/2015 20:00	5.4	133	15.7	1.5	30.7	
12/11/2015 21:00	5.2	135	15.7	49.1	30.7	
12/11/2015 22:00	5.9	148	15.4	84.6	30.7	
12/11/2015 23:00	6.6	160	16	43.5	30.7	
12/12/2015 0:00	7.2	167	16.6	72.6	30.7	
12/12/2015 1:00	5.7	173	16.7	1.5	30.7	
12/12/2015 2:00	4.4	165	16.6	1.5	30.7	
12/12/2015 3:00	4.7	157	16.4	1.5	30.7	
12/12/2015 4:00	5	158	16.6	1.5	30.7	
12/12/2015 5:00	4.7	142	16.2	1.5	30.7	
12/12/2015 6:00	5.9	142	15.8	1.5	30.7	
12/12/2015 7:00	5.7	149	16	1.5	30.7	
12/12/2015 8:00	5.1	152	16	1.5	30.7	
12/12/2015 9:00	5.4	141	16.1	1.5	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/12/2015 10:00	6.6	149	16.8	1.5	30.7	
12/12/2015 11:00	7.7	153	18.3	16.3	30.8	
12/12/2015 12:00	7.2	162	19.7	78.5	30.8	
12/12/2015 13:00	7.6	168	20.4	76	30.8	
12/12/2015 14:00	7.5	158	21.1	68.5	30.8	
12/12/2015 15:00	8.7	153	21.7	68.9	30.8	
12/12/2015 16:00	8.7	149	21.9	67.5	30.7	
12/12/2015 17:00	8.1	145	21.8	68.7	30.8	
12/12/2015 18:00	6.7	138	21.2	48.7	30.8	
12/12/2015 19:00	5.6	130	20.5	1.5	30.7	
12/12/2015 20:00	5.1	121	20.1	1.5	30.8	
12/12/2015 21:00	5.4	123	19.7	1.5	30.8	
12/12/2015 22:00	5.9	129	19.2	1.5	30.8	
12/12/2015 23:00	5.5	126	19.1	1.5	30.8	
12/13/2015 0:00	8.4	131	19.1	1.5	30.7	
12/13/2015 1:00	8.9	133	19.2	1.5	30.7	
12/13/2015 2:00	7.5	134	18.6	1.5	30.7	
12/13/2015 3:00	8.5	139	18.5	1.5	30.7	
12/13/2015 4:00	6.8	128	18.1	1.5	30.7	
12/13/2015 5:00	4.6	115	17.3	1.5	30.7	
12/13/2015 6:00	5.3	113	17.3	1.5	30.7	
12/13/2015 7:00	7.2	116	17.3	1.5	30.7	
12/13/2015 8:00	7	116	16.8	1.5	30.7	
12/13/2015 9:00	7.6	117	16.4	1.5	30.7	
12/13/2015 10:00	8	121	16.1	1.5	30.7	
12/13/2015 11:00	7.8	119	16	1.5	30.7	
12/13/2015 12:00	9.2	120	16.2	1.5	30.7	
12/13/2015 13:00	9.2	118	16.2	1.5	30.7	
12/13/2015 14:00	8.5	118	16.5	1.5	30.6	
12/13/2015 15:00	8.7	122	17	1.5	30.6	
12/13/2015 16:00	8.6	113	16.9	1.5	30.6	
12/13/2015 17:00	9.8	116	17.1	1.5	30.6	
12/13/2015 18:00	9.1	120	17.3	1.5	30.6	
12/13/2015 19:00	9.2	121	17.4	1.5	30.6	
12/13/2015 20:00	7.2	116	17.2	1.5	30.6	
12/13/2015 21:00	7	105	17.2	1.5	30.6	
12/13/2015 22:00	7.9	107	17.5	1.5	30.5	
12/13/2015 23:00	9.4	134	17.7	1.5	30.5	
12/14/2015 0:00	15.1	206	14.6	80.8	30.5	
12/14/2015 1:00	8	178	13.8	21.7	30.5	
12/14/2015 2:00	7	140	13.4	5.8	30.5	
12/14/2015 3:00	10.6	143	13.3	1.4	30.5	
12/14/2015 4:00	10.1	156	13.2	1.4	30.5	
12/14/2015 5:00	13.1	188	11.3	1.4	30.5	
12/14/2015 6:00	8.9	189	10.3	1.4	30.5	
12/14/2015 7:00	11.7	177	9.9	1.4	30.5	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/14/2015 8:00	10.2	183	8.5	1.4	30.5	
12/14/2015 9:00	11.1	181	8.4	1.4	30.5	
12/14/2015 10:00	11.8	190	8.5	1.4	30.5	
12/14/2015 11:00	15.6	202	9.5	1.4	30.5	
12/14/2015 12:00	17.8	207	9.7	1.4	30.5	
12/14/2015 13:00	18.3	205	10	1.4	30.5	
12/14/2015 14:00	20.3	204	9.4	1.4	30.5	
12/14/2015 15:00	21.5	205	9.1	1.4	30.5	
12/14/2015 16:00	18.9	209	8.1	1.4	30.6	
12/14/2015 17:00	18.6	209	7.5	1.4	30.6	
12/14/2015 18:00	13.4	219	6.9	1.4	30.6	
12/14/2015 19:00	12.9	226	7.2	1.4	30.6	
12/14/2015 20:00	13.7	234	7.6	1.4	30.6	
12/14/2015 21:00	12.5	235	7.4	1.4	30.6	
12/14/2015 22:00	11.2	235	7.4	1.4	30.7	
12/14/2015 23:00	10.7	232	7.3	1.4	30.7	
12/15/2015 0:00	10.6	237	7.3	1.4	30.7	
12/15/2015 1:00	8	256	7.3	1.4	30.7	
12/15/2015 2:00	6.8	261	7.1	1.4	30.7	
12/15/2015 3:00	6.4	266	6.8	1.4	30.7	
12/15/2015 4:00	6	277	6.5	1.4	30.7	
12/15/2015 5:00	6.1	278	6.2	1.4	30.7	
12/15/2015 6:00	4.5	288	5.9	1.4	30.7	
12/15/2015 7:00	4	289	6.1	1.4	30.7	
12/15/2015 8:00	2.7	296	6.2	1.4	30.7	
12/15/2015 9:00	3.9	19	6	1.4	30.8	
12/15/2015 10:00	5.1	20	5.9	1.4	30.7	
12/15/2015 11:00	5.2	48	6.2	1.4	30.7	
12/15/2015 12:00	5.6	96	6.8	1.4	30.7	
12/15/2015 13:00	5.8	105	7.2	1.4	30.7	
12/15/2015 14:00	6.2	119	7.5	1.4	30.7	
12/15/2015 15:00	6	118	7.6	1.4	30.7	
12/15/2015 16:00	6	108	8	1.4	30.7	
12/15/2015 17:00	6.1	103	8.7	1.4	30.7	
12/15/2015 18:00	6.9	97	8.9	1.4	30.7	
12/15/2015 19:00	6.2	94	8.6	1.4	30.7	
12/15/2015 20:00	6.3	91	8.2	1.4	30.7	
12/15/2015 21:00	5.3	105	8.1	1.4	30.7	
12/15/2015 22:00	5.8	105	8.1	1.4	30.7	
12/15/2015 23:00	4.8	112	8.2	1.4	30.7	
12/16/2015 0:00	4.4	116	8.3	1.4	30.7	
12/16/2015 1:00	3.9	115	8.3	1.4	30.7	
12/16/2015 2:00	4	114	8.5	1.4	30.7	
12/16/2015 3:00	4.9	165	9	1.4	30.7	
12/16/2015 4:00	4.2	131	9	1.4	30.7	
12/16/2015 5:00	7	144	10	1.4	30.7	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/16/2015 6:00	7.5	165	10.4	1.4	30.7	
12/16/2015 7:00	6.3	161	10.8	1.4	30.7	
12/16/2015 8:00	7.4	157	10.9	1.4	30.7	
12/16/2015 9:00	7.3	169	11	1.4	30.7	
12/16/2015 10:00	9.5	167	11.8	1.4	30.7	
12/16/2015 11:00	11.3	172	12.6	1.5	30.7	
12/16/2015 12:00	15.8	195	13.8	1.5	30.7	
12/16/2015 13:00	19.5	208	13.7	1.5	30.7	
12/16/2015 14:00	18	213	13	1.5	30.7	
12/16/2015 15:00	14.8	228	12.1	1.5	30.7	
12/16/2015 16:00	13.3	238	10.8	1.5	30.7	
12/16/2015 17:00	13.9	232	9.9	1.4	30.7	
12/16/2015 18:00	11.3	239	8.6	30.1	30.7	
12/16/2015 19:00	10.1	242	7.5	17.3	30.7	
12/16/2015 20:00	11.1	242	6.6	1.4	30.7	
12/16/2015 21:00	10.3	252	5.4	1.4	30.7	
12/16/2015 22:00	9.8	238	4.5	51.3	30.7	
12/16/2015 23:00	8.2	228	3.8	47	30.7	
12/17/2015 0:00	9.9	236	3.3	61	30.7	
12/17/2015 1:00	11.4	242	2.5	62.5	30.7	
12/17/2015 2:00	10.2	248	1.8	64.7	30.7	
12/17/2015 3:00	9.5	263	1.3	68	30.7	
12/17/2015 4:00	9.4	263	0.9	69.8	30.8	
12/17/2015 5:00	8.8	277	0.6	70.4	30.8	
12/17/2015 6:00	10.1	295	0.7	69.6	30.7	
12/17/2015 7:00	9.1	301	0.4	68.6	30.8	
12/17/2015 8:00	6.7	303	0	69.5	30.8	
12/17/2015 9:00	6.8	301	0.3	69.5	30.8	
12/17/2015 10:00	9	306	0.8	32.4	30.8	
12/17/2015 11:00	8.8	297	1.2	1.4	30.8	
12/17/2015 12:00	8.1	283	1.7	1.4	30.8	
12/17/2015 13:00	9.4	286	1.8	1.4	30.8	
12/17/2015 14:00	8.1	279	2	1.4	30.8	
12/17/2015 15:00	7.8	283	2.2	1.4	30.8	
12/17/2015 16:00	6.7	278	2	1.4	30.8	
12/17/2015 17:00	7.2	266	1.7	11.4	30.8	
12/17/2015 18:00	6.5	284	1.6	68.2	30.8	
12/17/2015 19:00	7	269	1.4	47.5	30.8	
12/17/2015 20:00	7.8	278	1.2	1.4	30.8	
12/17/2015 21:00	7	272	1.1	1.4	30.8	
12/17/2015 22:00	7	258	1.2	1.4	30.8	
12/17/2015 23:00	8.1	279	1.1	1.4	30.8	
12/18/2015 0:00	6.8	267	0.9	28.2	30.8	
12/18/2015 1:00	7.3	239	0.6	4.4	30.8	
12/18/2015 2:00	8.3	226	0.6	1.4	30.8	
12/18/2015 3:00	7.5	225	0.2	63.7	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/18/2015 4:00	7.5	233	-0.2	72.3	30.8	
12/18/2015 5:00	7.6	238	-0.6	72.9	30.8	
12/18/2015 6:00	8.4	238	-0.9	73.5	30.8	
12/18/2015 7:00	9.4	255	-1	71.9	30.8	
12/18/2015 8:00	8.8	264	-1.3	69.2	30.8	
12/18/2015 9:00	7.5	244	-1.7	68.9	30.8	
12/18/2015 10:00	8.7	228	-1.3	66.4	30.9	
12/18/2015 11:00	9.7	229	-0.3	45.3	30.9	
12/18/2015 12:00	12.4	228	0.8	5.1	30.9	
12/18/2015 13:00	12.4	230	1.7	1.4	30.9	
12/18/2015 14:00	12	209	2.5	10.1	30.8	
12/18/2015 15:00	14.9	204	3.5	3.5	30.8	
12/18/2015 16:00	17.8	213	4.4	1.4	30.8	
12/18/2015 17:00	17.2	215	4.7	1.4	30.8	
12/18/2015 18:00	13.1	205	4.4	1.4	30.8	
12/18/2015 19:00	9.5	201	3.7	1.4	30.8	
12/18/2015 20:00	8.8	202	3.3	1.4	30.9	
12/18/2015 21:00	8	198	2.8	1.4	30.9	
12/18/2015 22:00	8.9	199	2.5	1.4	30.9	
12/18/2015 23:00	8.5	202	2.2	1.4	30.9	
12/19/2015 0:00	8.9	217	2.4	1.4	30.9	
12/19/2015 1:00	8.4	235	2.2	1.4	30.9	
12/19/2015 2:00	6.7	242	1.7	1.4	30.9	
12/19/2015 3:00	6.7	267	1.2	40.2	30.9	
12/19/2015 4:00	5.6	261	0.5	64.8	30.9	
12/19/2015 5:00	5.5	255	0	64.9	30.9	
12/19/2015 6:00	4.1	262	-0.7	67.6	30.9	
12/19/2015 7:00	4	280	-1.2	71.8	30.9	
12/19/2015 8:00	1.9	332	-2.2	75.2	30.9	
12/19/2015 9:00	1.6	227	-2.4	78.4	31	
12/19/2015 10:00	2.6	359	-0.8	67.7	31	
12/19/2015 11:00	2.4	267	0.9	26.6	31	
12/19/2015 12:00	3.3	220	2.3	9.4	31	
12/19/2015 13:00	5.3	207	3.1	1.4	31	
12/19/2015 14:00	3.9	182	5.3	1.5	31	
12/19/2015 15:00	4.2	117	7	4.1	30.9	
12/19/2015 16:00	5.5	121	7.9	1.4	30.9	
12/19/2015 17:00	5.6	120	7.6	1.4	30.9	
12/19/2015 18:00	4.3	114	7.3	1.4	30.9	
12/19/2015 19:00	5.2	101	6.1	1.4	30.9	
12/19/2015 20:00	6.2	110	5.8	1.4	30.9	
12/19/2015 21:00	5.8	118	5.5	1.4	30.9	
12/19/2015 22:00	7.8	134	5.5	1.4	30.9	
12/19/2015 23:00	8.6	137	5.3	1.4	30.9	
12/20/2015 0:00	8.6	141	4.8	1.4	30.9	
12/20/2015 1:00	9	144	5.1	1.4	30.9	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/20/2015 2:00	7.8	140	4.9	1.4	30.9	
12/20/2015 3:00	6.9	143	5.1	1.4	30.9	
12/20/2015 4:00	8.3	144	5.4	1.4	30.9	
12/20/2015 5:00	9.2	141	5.7	1.4	30.9	
12/20/2015 6:00	7.2	142	5.9	1.4	30.9	
12/20/2015 7:00	6.9	144	6.1	1.4	30.9	
12/20/2015 8:00	9.4	143	6.3	1.4	30.8	
12/20/2015 9:00	9.6	151	6.8	1.4	30.9	
12/20/2015 10:00	10.6	149	7.3	1.4	30.9	
12/20/2015 11:00	9.5	149	8.3	1.4	30.8	
12/20/2015 12:00	11.4	160	10.5	1.4	30.9	
12/20/2015 13:00	12.9	161	12.1	1.4	30.8	
12/20/2015 14:00	13.1	162	12.9	1.4	30.8	
12/20/2015 15:00	14.8	165	13	1.4	30.8	
12/20/2015 16:00	14.2	159	13.4	1.4	30.8	
12/20/2015 17:00	16	157	13.6	1.4	30.8	
12/20/2015 18:00	13.1	151	12.6	1.4	30.8	
12/20/2015 19:00	11.7	145	11.3	1.4	30.8	
12/20/2015 20:00	12.4	150	11.4	1.4	30.8	
12/20/2015 21:00	13.3	152	11.4	1.4	30.8	
12/20/2015 22:00	12.2	153	11.4	1.4	30.8	
12/20/2015 23:00	10.8	150	11.2	1.4	30.8	
12/21/2015 0:00	11.1	150	11	1.4	30.7	
12/21/2015 1:00	10.7	156	10.7	1.4	30.7	
12/21/2015 2:00	9.8	162	9.9	1.4	30.7	
12/21/2015 3:00	10.5	163	9.8	1.4	30.7	
12/21/2015 4:00	11	161	10.3	1.4	30.7	
12/21/2015 5:00	12.2	165	10.9	1.4	30.7	
12/21/2015 6:00	13.6	164	11.5	1.4	30.7	
12/21/2015 7:00	12.5	162	11.3	1.4	30.7	
12/21/2015 8:00	11.7	160	11.8	1.4	30.7	
12/21/2015 9:00	11.4	164	12.6	1.4	30.7	
12/21/2015 10:00	10.3	167	13.3	1.5	30.7	
12/21/2015 11:00	10.3	170	14.3	1.5	30.7	
12/21/2015 12:00	10.9	189	15.9	10.4	30.7	
12/21/2015 13:00	14.2	202	17.5	41.8	30.7	
12/21/2015 14:00	13.3	206	17.3	2.1	30.7	
12/21/2015 15:00	10.9	219	17.5	31.3	30.7	
12/21/2015 16:00	10.1	227	17.5	1.5	30.7	
12/21/2015 17:00	8.8	256	17.6	1.5	30.7	
12/21/2015 18:00	8.8	276	15.8	1.5	30.7	
12/21/2015 19:00	9.2	289	12.5	1.4	30.7	
12/21/2015 20:00	8.9	285	10.4	1.4	30.7	
12/21/2015 21:00	8	274	9.2	1.4	30.7	
12/21/2015 22:00	9.5	283	7.9	4.1	30.7	
12/21/2015 23:00	7.8	268	7.4	1.4	30.7	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/22/2015 0:00	9.1	265	6.8	1.4	30.7	
12/22/2015 1:00	8.3	255	6.1	1.4	30.7	
12/22/2015 2:00	7.1	253	6	1.4	30.7	
12/22/2015 3:00	7.2	250	5.7	1.4	30.7	
12/22/2015 4:00	5.9	260	5.4	1.4	30.7	
12/22/2015 5:00	6.2	264	5.1	1.4	30.7	
12/22/2015 6:00	6	250	4.6	1.4	30.7	
12/22/2015 7:00	5	294	4.4	1.4	30.8	
12/22/2015 8:00	4.6	254	4.3	1.4	30.7	
12/22/2015 9:00	3	204	4.1	1.4	30.7	
12/22/2015 10:00	4.1	131	4.3	1.4	30.7	
12/22/2015 11:00	5.9	139	4.7	38.4	30.7	
12/22/2015 12:00	5.7	141	5.5	28.5	30.8	
12/22/2015 13:00	5.6	113	7.2	2.3	30.7	
12/22/2015 14:00	5.7	109	8.6	1.5	30.7	
12/22/2015 15:00	5.6	105	9.6	1.5	30.7	
12/22/2015 16:00	7.3	105	9.8	1.5	30.7	
12/22/2015 17:00	7.5	104	9.7	1.4	30.7	
12/22/2015 18:00	6.5	110	8.9	1.4	30.7	
12/22/2015 19:00	6.4	108	8.2	1.4	30.7	
12/22/2015 20:00	5.4	111	8.1	1.4	30.7	
12/22/2015 21:00	6.8	117	7.9	1.4	30.7	
12/22/2015 22:00	9.5	130	8	1.4	30.6	
12/22/2015 23:00	9.5	134	8.9	1.4	30.6	
12/23/2015 0:00	9.9	132	9.9	1.4	30.6	
12/23/2015 1:00	9.6	136	10.7	1.4	30.6	
12/23/2015 2:00	9.5	146	11.5	1.4	30.6	
12/23/2015 3:00	8.1	144	12.7	1.4	30.6	
12/23/2015 4:00	6.8	138	13.3	1.4	30.6	
12/23/2015 5:00	6.4	137	13.8	1.4	30.6	
12/23/2015 6:00	6.2	123	14.6	1.4	30.6	
12/23/2015 7:00	7.3	119	14.9	1.4	30.5	
12/23/2015 8:00	6.8	135	14.5	1.4	30.5	
12/23/2015 9:00	11.7	149	15.4	1.5	30.5	
12/23/2015 10:00	12.7	189	14.9	1.4	30.5	
12/23/2015 11:00	6.3	123	14.1	1.4	30.5	
12/23/2015 12:00	8.3	131	14.8	1.5	30.5	
12/23/2015 13:00	12.2	138	14.9	1.5	30.5	
12/23/2015 14:00	12.1	145	15.7	1.5	30.5	
12/23/2015 15:00	13.3	151	16.2	1.5	30.5	
12/23/2015 16:00	13.6	160	17.1	1.5	30.4	
12/23/2015 17:00	13.3	159	17.4	1.5	30.4	
12/23/2015 18:00	13.6	172	17.4	1.5	30.5	
12/23/2015 19:00	9.6	187	16.4	1.5	30.5	
12/23/2015 20:00	19.1	227	16.7	8	30.5	
12/23/2015 21:00	21	234	13.6	1.4	30.6	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/23/2015 22:00	18.4	237	10.9	1.4	30.6	
12/23/2015 23:00	15.7	260	8.7	1.4	30.6	
12/24/2015 0:00	11.8	247	7.4	1.4	30.6	
12/24/2015 1:00	9.4	237	6.8	1.4	30.7	
12/24/2015 2:00	7.8	232	6.2	1.4	30.7	
12/24/2015 3:00	6.4	230	5.7	1.4	30.7	
12/24/2015 4:00	4.7	206	5	1.4	30.7	
12/24/2015 5:00	2.7	168	4.1	1.4	30.7	
12/24/2015 6:00	3.1	137	3.4	1.4	30.7	
12/24/2015 7:00	2.7	128	3.1	1.4	30.7	
12/24/2015 8:00	2.9	112	2.9	1.4	30.7	
12/24/2015 9:00	2	160	3.4	1.4	30.8	
12/24/2015 10:00	3.6	124	4.4	1.4	30.8	
12/24/2015 11:00	3.2	97	6.5	15.4	30.8	
12/24/2015 12:00	5.9	110	7.8	28.8	30.8	
12/24/2015 13:00	7.7	100	8.4	1.4	30.8	
12/24/2015 14:00	5.6	98	9.4	1.4	30.7	
12/24/2015 15:00	6.8	104	9.9	1.4	30.8	
12/24/2015 16:00	6.7	113	10	1.4	30.8	
12/24/2015 17:00	5.6	117	10.4	1.4	30.7	
12/24/2015 18:00	5.2	145	10.5	1.4	30.8	
12/24/2015 19:00	3.7	140	10.5	1.4	30.8	
12/24/2015 20:00	3.6	140	10.3	1.4	30.8	
12/24/2015 21:00	1.6	306	9.7	1.4	30.8	
12/24/2015 22:00	1.9	246	9.2	1.4	30.8	
12/24/2015 23:00	3.2	247	9.2	1.4	30.8	
12/25/2015 0:00	3.2	245	9.3	1.4	30.8	
12/25/2015 1:00	3	251	9.1	1.4	30.8	
12/25/2015 2:00	4.5	263	8.8	1.4	30.8	
12/25/2015 3:00	4.6	292	8.2	1.4	30.8	
12/25/2015 4:00	6.1	316	7.6	1.4	30.8	
12/25/2015 5:00	6.6	316	6.6	1.4	30.8	
12/25/2015 6:00	8.1	324	5.4	1.4	30.8	
12/25/2015 7:00	6.1	344	4.3	42.4	30.8	
12/25/2015 8:00	8.5	341	3.8	1.4	30.9	
12/25/2015 9:00	5.8	4	3.1	1.4	30.9	
12/25/2015 10:00	7.9	2	3.2	1.4	30.9	
12/25/2015 11:00	8	4	4.2	1.4	30.9	
12/25/2015 12:00	9.1	358	5.2	1.4	30.9	
12/25/2015 13:00	9.8	350	6.6	1.9	30.9	
12/25/2015 14:00	8.4	355	7.5	53.4	30.9	
12/25/2015 15:00	7.2	23	9.2	16.3	30.9	
12/25/2015 16:00	6.8	40	10.2	1.5	30.9	
12/25/2015 17:00	6.6	36	10.6	1.4	30.8	
12/25/2015 18:00	5.6	26	9.6	33.8	30.8	
12/25/2015 19:00	3.7	7	8	13.4	30.9	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/25/2015 20:00	4.4	11	6.9	1.4	30.9	
12/25/2015 21:00	6	27	6.7	1.4	30.9	
12/25/2015 22:00	7.2	34	7	1.4	30.8	
12/25/2015 23:00	5.1	37	6.7	1.4	30.9	
12/26/2015 0:00	6.1	50	6.6	1.4	30.8	
12/26/2015 1:00	6.1	56	6.4	1.4	30.9	
12/26/2015 2:00	4.9	46	6.6	1.4	30.8	
12/26/2015 3:00	5.6	68	7.2	1.4	30.8	
12/26/2015 4:00	6.5	77	7.5	1.4	30.8	
12/26/2015 5:00	5.6	83	7.6	1.4	30.8	
12/26/2015 6:00	6.5	88	7.6	1.4	30.8	
12/26/2015 7:00	6.2	82	7.3	1.4	30.8	
12/26/2015 8:00	4.8	82	7.3	1.4	30.8	
12/26/2015 9:00	6.7	44	7.6	1.4	30.8	
12/26/2015 10:00	6.4	26	7.1	97.3	30.8	
12/26/2015 11:00	5.6	81	7.6	33.6	30.8	
12/26/2015 12:00	5.9	107	8.5	4.7	30.8	
12/26/2015 13:00	6.2	111	9.2	1.4	30.8	
12/26/2015 14:00	4.5	89	9.8	1.4	30.8	
12/26/2015 15:00	3	81	9.9	1.4	30.7	
12/26/2015 16:00	3.2	94	10.1	1.4	30.7	
12/26/2015 17:00	3	74	10.5	1.4	30.7	
12/26/2015 18:00	3.8	328	10.8	1.4	30.7	
12/26/2015 19:00	3.1	356	10.4	1.4	30.8	
12/26/2015 20:00	4.3	351	10.4	1.4	30.8	
12/26/2015 21:00	9	341	10.4	1.4	30.7	
12/26/2015 22:00	12	329	9.1	29.3	30.7	
12/26/2015 23:00	10	358	8.6	89.9	30.7	
12/27/2015 0:00	11.1	336	8.3	89.2	30.8	
12/27/2015 1:00	12.4	325	7.7	1.4	30.8	
12/27/2015 2:00	13.5	327	6.7	1.4	30.8	
12/27/2015 3:00	10.8	319	6.8	1.4	30.8	
12/27/2015 4:00	11.3	309	6	1.4	30.8	
12/27/2015 5:00	12.6	326	5.8	1.4	30.8	
12/27/2015 6:00	14.7	337	5.6	1.4	30.8	
12/27/2015 7:00	15	340	5.2	1.4	30.8	
12/27/2015 8:00	14.9	331	4.6	1.4	30.8	
12/27/2015 9:00	13.5	338	4.2	1.4	30.8	
12/27/2015 10:00	14.6	340	4.2	1.4	30.9	
12/27/2015 11:00	12.3	345	4.2	1.4	30.9	
12/27/2015 12:00	12.9	347	4.1	1.4	30.9	
12/27/2015 13:00	17.1	348	4	1.4	30.8	
12/27/2015 14:00	15.8	356	3.7	1.4	30.9	
12/27/2015 15:00	13.6	359	3.7	1.4	30.9	
12/27/2015 16:00	13.6	356	3.5	1.4	30.9	
12/27/2015 17:00	12.9	3	3.5	1.4	30.9	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/27/2015 18:00	13.6	358	3.8	1.4	30.9	
12/27/2015 19:00	12.7	2	4.1	1.4	30.9	
12/27/2015 20:00	13	5	4.1	1.4	30.8	
12/27/2015 21:00	14.6	13	4.3	1.4	30.8	
12/27/2015 22:00	14	22	4.2	1.4	30.8	
12/27/2015 23:00	13.7	26	4	1.4	30.8	
12/28/2015 0:00	13.2	22	3.7	1.4	30.8	
12/28/2015 1:00	11.5	19	3.5	1.4	30.8	
12/28/2015 2:00	15.3	17	3.3	1.4	30.8	
12/28/2015 3:00	15.5	24	3.1	1.4	30.8	
12/28/2015 4:00	12.8	31	3.1	1.4	30.8	
12/28/2015 5:00	10.7	27	3.1	1.4	30.7	
12/28/2015 6:00	11.2	29	3	1.4	30.7	
12/28/2015 7:00	11.5	27	2.8	1.4	30.7	
12/28/2015 8:00	10.6	28	2.8	1.4	30.7	
12/28/2015 9:00	10.7	27	2.8	1.4	30.7	
12/28/2015 10:00	11.7	31	3.2	1.4	30.6	
12/28/2015 11:00	11.3	23	3.4	1.4	30.6	
12/28/2015 12:00	8.5	32	3.6	1.4	30.6	
12/28/2015 13:00	8.7	28	4.3	1.4	30.6	
12/28/2015 14:00	10.7	26	5	1.4	30.5	
12/28/2015 15:00	5.8	308	6	1.4	30.5	
12/28/2015 16:00	4.6	314	5.6	1.4	30.5	
12/28/2015 17:00	4.6	357	5.4	1.4	30.5	
12/28/2015 18:00	3.8	181	5.9	1.4	30.6	
12/28/2015 19:00	11.9	202	7.1	1.4	30.5	
12/28/2015 20:00	23.6	208	7.4	1.4	30.6	
12/28/2015 21:00	22.5	204	5.9	1.4	30.6	
12/28/2015 22:00	22.1	208	4.6	9.9	30.6	
12/28/2015 23:00	18.4	210	3.6	1.4	30.6	
12/29/2015 0:00	17	217	2.7	21.9	30.6	
12/29/2015 1:00	15.3	218	2.1	30.9	30.7	
12/29/2015 2:00	14.6	219	1.9	1.4	30.7	
12/29/2015 3:00	15.5	223	1.7	1.4	30.7	
12/29/2015 4:00	15.4	231	1.4	50.4	30.7	
12/29/2015 5:00	14.8	236	1	77.1	30.7	
12/29/2015 6:00	12.3	235	0.7	78.4	30.7	
12/29/2015 7:00	14.6	232	0.4	17.9	30.8	
12/29/2015 8:00	11.8	242	0	69.1	30.8	
12/29/2015 9:00	11.6	235	-0.3	74.5	30.8	
12/29/2015 10:00	9.6	243	-0.4	74.7	30.8	
12/29/2015 11:00	10.1	244	-0.4	74.8	30.8	
12/29/2015 12:00	9.2	246	-0.3	74.4	30.8	
12/29/2015 13:00	8.7	247	-0.2	74.8	30.8	
12/29/2015 14:00	8.4	242	-0.1	74.4	30.8	
12/29/2015 15:00	7.9	238	0.1	49.1	30.8	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/29/2015 16:00	7.5	219	0.2	75.4	30.8	
12/29/2015 17:00	7.3	218	0.2	76	30.8	
12/29/2015 18:00	5.7	234	0.1	22.4	30.8	
12/29/2015 19:00	4.3	237	-0.1	1.4	30.8	
12/29/2015 20:00	4.2	256	0.1	1.4	30.9	
12/29/2015 21:00	5	322	-0.3	61.4	30.9	
12/29/2015 22:00	4.6	338	-0.5	79.9	30.9	
12/29/2015 23:00	3	327	-0.4	81.1	30.8	
12/30/2015 0:00	4	301	-0.5	80	30.9	
12/30/2015 1:00	4.2	328	-0.5	80.6	30.9	
12/30/2015 2:00	3.1	317	-0.6	80.7	30.9	
12/30/2015 3:00	2.6	347	-0.5	56.1	30.9	
12/30/2015 4:00	4.2	339	-0.5	1.4	30.9	
12/30/2015 5:00	4.6	331	-0.6	32.6	30.9	
12/30/2015 6:00	3.5	300	-0.6	81.6	30.9	
12/30/2015 7:00	6.1	300	-0.9	82.5	30.9	
12/30/2015 8:00	5.3	315	-1.1	82.6	30.9	
12/30/2015 9:00	4.6	273	-0.9	83.8	30.9	
12/30/2015 10:00	4.8	251	-0.7	83	30.9	
12/30/2015 11:00	6.6	235	-0.4	45.5	30.9	
12/30/2015 12:00	7.1	264	0	1.4	30.9	
12/30/2015 13:00	8.1	279	0.1	1.4	30.9	
12/30/2015 14:00	7.3	277	0.1	3.5	30.9	
12/30/2015 15:00	6.9	266	0.4	36.7	30.9	
12/30/2015 16:00	6.8	279	0.5	39.2	30.9	
12/30/2015 17:00	7.3	291	0.3	69.2	30.9	
12/30/2015 18:00	6.2	296	0.1	1.4	30.9	
12/30/2015 19:00	6	299	-0.1	1.4	30.9	
12/30/2015 20:00	5.1	305	-0.1	1.4	30.9	
12/30/2015 21:00	4.5	333	-0.3	65.7	30.9	
12/30/2015 22:00	3.3	316	-0.3	77.3	30.9	
12/30/2015 23:00	3.5	301	-0.2	77.6	30.9	
12/31/2015 0:00	4.4	285	-0.2	77.3	30.9	
12/31/2015 1:00	5.8	253	-0.1	74.9	30.9	
12/31/2015 2:00	5.7	275	-0.2	77.6	30.9	
12/31/2015 3:00	6.3	266	-0.4	77.7	30.9	
12/31/2015 4:00	7.8	261	-0.3	75.4	30.9	
12/31/2015 5:00	10.3	252	-0.5	23.5	30.9	
12/31/2015 6:00	7.8	259	-0.5	1.4	30.9	
12/31/2015 7:00	8.2	265	-0.4	1.4	30.9	
12/31/2015 8:00	8.4	269	-0.5	1.4	30.9	
12/31/2015 9:00	8.1	283	-0.6	36.6	30.9	
12/31/2015 10:00	7.7	299	-0.8	74.2	30.9	
12/31/2015 11:00	7.3	277	-0.8	74.2	30.9	
12/31/2015 12:00	7	296	-0.9	74.7	31	
12/31/2015 13:00	6.7	268	-0.8	34.7	30.9	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
12/31/2015 14:00	6.7	260	-0.5	19.8	30.9	
12/31/2015 15:00	6.9	269	-0.3	46.3	30.9	
12/31/2015 16:00	6.8	274	-0.1	27.6	30.9	
12/31/2015 17:00	6.1	277	0.4	24	30.9	
12/31/2015 18:00	4	244	0.3	66.4	30.9	
12/31/2015 19:00	2.6	222	0	1.4	30.9	
12/31/2015 20:00	3.2	184	-0.1	1.4	30.9	
12/31/2015 21:00	4	172	-0.4	1.4	30.9	
12/31/2015 22:00	4.2	170	-0.6	1.4	30.9	
12/31/2015 23:00	5.1	176	-0.7	15.1	30.9	
1/1/2016 0:00	4.3	181	-0.9	79	30.9	
1/1/2016 1:00	4.7	206	-0.6	49.1	30.9	
1/1/2016 2:00	5.6	218	-0.1	1.4	30.9	
1/1/2016 3:00	5.8	249	-0.3	1.4	30.9	
1/1/2016 4:00	6.1	258	-0.8	39.9	30.9	
1/1/2016 5:00	6.8	265	-1.5	77.1	30.9	
1/1/2016 6:00	6.5	244	-2.2	77.2	30.9	
1/1/2016 7:00	6.4	226	-2.6	76.4	30.9	
1/1/2016 8:00	6.5	217	-2.9	78	30.9	
1/1/2016 9:00	8.7	223	-2.7	75	30.9	
1/1/2016 10:00	10.4	235	-2.2	74.4	30.9	
1/1/2016 11:00	10.4	235	-1.4	70.7	30.9	
1/1/2016 12:00	11.2	244	0.2	63.6	30.9	
1/1/2016 13:00	11.2	262	1.2	41.9	30.9	
1/1/2016 14:00	11.1	263	2	34	30.9	
1/1/2016 15:00	9.9	256	3.2	8.2	30.9	
1/1/2016 16:00	9.7	262	4	42.7	30.9	
1/1/2016 17:00	9.6	264	4.5	1.4	30.9	
1/1/2016 18:00	8.1	261	4.2	1.4	30.9	
1/1/2016 19:00	5.2	243	3.3	1.4	30.9	
1/1/2016 20:00	6.4	198	2.6	26.8	30.9	
1/1/2016 21:00	8.7	195	2.4	55.8	30.9	
1/1/2016 22:00	8.3	211	2.2	43.4	30.9	
1/1/2016 23:00	11.1	212	2.3	33.6	30.9	
1/2/2016 0:00	11.2	209	2.2	60.8	30.9	
1/2/2016 1:00	13.4	210	2	51.4	30.9	
1/2/2016 2:00	10	214	1.6	5.5	30.9	
1/2/2016 3:00	9.8	217	1.2	66.3	30.9	
1/2/2016 4:00	7.5	225	1	25.8	30.9	
1/2/2016 5:00	6.9	219	0.5	69.8	30.9	
1/2/2016 6:00	6.5	222	0.1	54.4	30.9	
1/2/2016 7:00	6.6	218	-0.3	1.4	30.9	
1/2/2016 8:00	7.6	217	-0.4	1.4	30.9	
1/2/2016 9:00	7.7	223	-0.2	1.4	30.9	
1/2/2016 10:00	8.3	232	0.6	1.4	30.9	
1/2/2016 11:00	8.2	236	1.6	1.4	30.9	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
1/2/2016 12:00	7.9	226	2.9	8.1	30.9	
1/2/2016 13:00	8.5	218	4.3	50.6	30.9	
1/2/2016 14:00	8.2	201	5.7	32.6	30.9	
1/2/2016 15:00	8.7	200	6.7	9.5	30.8	
1/2/2016 16:00	9.8	216	7.7	1.4	30.8	
1/2/2016 17:00	9.1	223	8.1	1.4	30.8	
1/2/2016 18:00	7.6	237	7.7	1.4	30.8	
1/2/2016 19:00	6.9	221	6.4	26.1	30.8	
1/2/2016 20:00	6.6	218	5.6	15.8	30.8	
1/2/2016 21:00	4.7	196	4.7	44.1	30.8	
1/2/2016 22:00	5.1	202	4	14.4	30.8	
1/2/2016 23:00	7.6	227	4.1	1.4	30.8	
1/3/2016 0:00	6.6	240	3.8	8.1	30.8	
1/3/2016 1:00	6.1	233	2.9	19	30.8	
1/3/2016 2:00	6	205	1.9	44.1	30.8	
1/3/2016 3:00	5.3	205	1.6	37.2	30.8	
1/3/2016 4:00	6.3	248	1.7	19.9	30.8	
1/3/2016 5:00	7.5	250	1.8	1.4	30.8	
1/3/2016 6:00	6.9	262	1.1	53.2	30.8	
1/3/2016 7:00	6.7	292	0.2	70.8	30.8	
1/3/2016 8:00	6.2	296	-0.7	74.7	30.8	
1/3/2016 9:00	6.1	293	-1.1	76.6	30.8	
1/3/2016 10:00	7.5	292	-0.6	73.5	30.8	
1/3/2016 11:00	8.8	301	0	69.4	30.9	
1/3/2016 12:00	9.6	305	0.6	23	30.9	
1/3/2016 13:00	10	326	1.1	51.3	30.9	
1/3/2016 14:00	10.3	321	1.7	24.3	30.9	
1/3/2016 15:00	9.5	310	2.3	24.2	30.9	
1/3/2016 16:00	10.1	314	2.6	19.4	30.9	
1/3/2016 17:00	10.1	317	2.5	1.4	30.9	
1/3/2016 18:00	9.4	307	1.8	1.5	30.9	
1/3/2016 19:00	10.3	308	0.7	53	30.9	
1/3/2016 20:00	11.1	328	-0.4	68.7	30.9	
1/3/2016 21:00	11.2	326	-1.2	76.2	30.9	
1/3/2016 22:00	10.6	331	-1.5	77.5	30.9	
1/3/2016 23:00	11.8	335	-2.3	79	30.9	
1/4/2016 0:00	10.3	333	-2.3	79.2	30.9	
1/4/2016 1:00	10.3	333	-2.1	78.6	30.9	
1/4/2016 2:00	10.9	322	-2	76.8	30.9	
1/4/2016 3:00	9.7	328	-1.8	74.7	30.9	
1/4/2016 4:00	11	335	-1.6	68	30.9	
1/4/2016 5:00	10.6	333	-1.5	67.8	30.9	
1/4/2016 6:00	9.9	330	-1.5	68.2	30.9	
1/4/2016 7:00	10.7	335	-1.5	65.2	31	
1/4/2016 8:00	9.8	333	-1.5	65.4	31	
1/4/2016 9:00	9	333	-1.7	66.5	31	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
1/4/2016 10:00	9.1	323	-1.1	64.9	31	
1/4/2016 11:00	9.2	331	-1	64.2	31	
1/4/2016 12:00	8.1	337	-0.7	61.7	31	
1/4/2016 13:00	7.4	351	0.3	32.1	31	
1/4/2016 14:00	7.1	352	0.7	15.3	31	
1/4/2016 15:00	6	342	1.1	19.7	31	
1/4/2016 16:00	6.5	331	1.2	45.3	31	
1/4/2016 17:00	5.9	342	1.8	8.8	31	
1/4/2016 18:00	5.2	343	1.2	53	31	
1/4/2016 19:00	3.7	2	0.3	48.2	31	
1/4/2016 20:00	2.4	17	-0.4	65.5	31	
1/4/2016 21:00	2.6	21	-0.8	67.9	31	
1/4/2016 22:00	1.5	54	-1.9	70.5	31	
1/4/2016 23:00	2	73	-2.3	72.1	31	
1/5/2016 0:00	2.7	83	-2	69.7	31	
1/5/2016 1:00	2.7	78	-2.4	71.6	31	
1/5/2016 2:00	2.1	83	-2.8	74.6	31	
1/5/2016 3:00	2	91	-3.1	78	31	
1/5/2016 4:00	2	106	-3.3	79	31	
1/5/2016 5:00	2.2	121	-3.5	79.6	31	
1/5/2016 6:00	2.7	116	-4.5	83.7	31	
1/5/2016 7:00	2.6	125	-3.9	80.2	31	
1/5/2016 8:00	2.1	115	-4.1	81.5	31	
1/5/2016 9:00	2.5	113	-3.9	80.9	31	
1/5/2016 10:00	5.1	126	-1.9	73.4	31	
1/5/2016 11:00	8.3	136	0	11.1	31	
1/5/2016 12:00	10.5	141	1.6	55.5	31	
1/5/2016 13:00	9.5	145	2.8	34.9	31	
1/5/2016 14:00	9.2	138	3.7	26.4	31	
1/5/2016 15:00	8.1	147	4.3	28.1	31	
1/5/2016 16:00	6.1	130	5	31.9	30.9	
1/5/2016 17:00	5.6	113	4.9	3.6	30.9	
1/5/2016 18:00	5.8	109	3.8	1.4	30.9	
1/5/2016 19:00	5.5	106	2.6	52.8	30.9	
1/5/2016 20:00	4.9	114	2.1	58.3	30.9	
1/5/2016 21:00	5	131	1.5	59.9	30.9	
1/5/2016 22:00	6.1	142	1.2	60.7	30.9	
1/5/2016 23:00	5.2	140	0.9	62.4	30.9	
1/6/2016 0:00	4.4	139	0.3	65.6	30.9	
1/6/2016 1:00	5.3	141	0.2	66.6	30.9	
1/6/2016 2:00	4.2	138	-0.1	67.3	30.9	
1/6/2016 3:00	2.9	119	-0.7	70.6	30.9	
1/6/2016 4:00	3.3	112	-1	71.7	30.9	
1/6/2016 5:00	3.5	112	-1	70.7	30.9	
1/6/2016 6:00	2.1	60	-1.8	74.1	30.9	
1/6/2016 7:00	2.7	112	-1.6	73.2	30.9	

Date Time	WS(MPH)	WD(DEG)	AT(C)	RH(%)	BP(InH)	Status
1/6/2016 8:00	2.5	111	-1.6	72.7	30.9	
1/6/2016 9:00	3.6	124	-1.1	70.5	30.9	
1/6/2016 10:00	5.1	127	0.4	30.9	30.9	
1/6/2016 11:00	6.3	132	2.1	1.4	30.9	
1/6/2016 12:00	7.7	140	2.9	1.4	30.9	
1/6/2016 13:00	8	143	4.1	1.4	30.9	
1/6/2016 14:00	9.2	155	5.9	1.4	30.9	
1/6/2016 15:00	8.1	146	7	1.4	30.9	
1/6/2016 16:00	6.5	138	7.6	1.4	30.8	
1/6/2016 17:00	5.5	117	7.5	1.4	30.8	
1/6/2016 18:00	6.3	131	7.2	29.7	30.9	
1/6/2016 19:00	5.4	124	6.6	40.2	30.8	
1/6/2016 20:00	5.7	119	6	1.4	30.9	
1/6/2016 21:00	6.2	122	5.6	1.4	30.8	
1/6/2016 22:00	6.4	132	5.4	1.4	30.8	
1/6/2016 23:00	5.8	122	5.2	1.4	30.8	
1/7/2016 0:00	5.8	134	5	1.4	30.9	
1/7/2016 1:00	6.2	135	4.9	1.4	30.8	
1/7/2016 2:00	5.1	125	4.8	1.4	30.8	
1/7/2016 3:00	5.2	136	4.7	1.4	30.8	
1/7/2016 4:00	3.8	126	4.4	1.4	30.8	
1/7/2016 5:00	5.2	135	4.6	1.4	30.8	
1/7/2016 6:00	5.2	132	4.4	1.4	30.8	
1/7/2016 7:00	4.3	127	4.5	1.4	30.8	
1/7/2016 8:00	5.4	143	5.1	1.4	30.8	
1/7/2016 9:00	6.1	148	5.1	1.4	30.8	
1/7/2016 10:00	3.6	144	5.6	1.4	30.8	
1/7/2016 11:00	3.8	122	6.8	1.4	30.8	
1/7/2016 12:00	5.1	120	7.9	9.8	30.8	
1/7/2016 13:00	5.6	109	8.4	13	30.8	
1/7/2016 14:00	6.1	110	9.4	1.4	30.8	
1/7/2016 15:00	5.8	113	9.7	1.4	30.8	
1/7/2016 16:00	5.9	118	9.3	1.4	30.8	
1/7/2016 17:00	5.5	116	9	1.4	30.8	
1/7/2016 18:00	5.4	123	8.7	1.4	30.7	
1/7/2016 19:00	6	106	8.2	1.4	30.8	
1/7/2016 20:00	5.9	103	7.7	1.4	30.8	
1/7/2016 21:00	6.8	109	7.6	1.4	30.8	
1/7/2016 22:00	7.1	123	7.4	1.4	30.8	
1/7/2016 23:00	6.3	125	7.3	1.4	30.7	
1/8/2016 0:00	5.3	115	6.7	1.4	30.7	

APPENDIX H

AUXIER AND ASSOCIATES PROCEDURES

PROCEDURE 5.1
CALIBRATION PROCEDURE FOR PM 2.5 AIR MONITORING

1.0 PURPOSE

1.1 To describe the procedures for calibrating, checking and adjusting the flow of the Mass Flow Controllers (MFC) of high volume samplers used to perform PM 2.5 monitoring. PM10 and PM2.5 monitoring samples the airborne fraction of particles that can be inhaled into the respiratory system, i.e., particles of aerodynamic diameter less than 10 micrometers (µm). Atmospheric particles commonly occur in two distinct modes: the fine (< 2.5 µm) mode and the coarse (2.5-10.0 µm) mode. The fine or accumulation mode (also termed the respirable particulate matter) is attributed to growth of particles from the gas phase and subsequent agglomeration, while the coarse mode is made of mechanically abraded or ground particles.

2.0 RESPONSIBILITY

2.1 The Project Manager and Site Coordinator are responsible for assuring that this procedure is implemented.

2.2 Survey team personnel are responsible for following this procedure.

NOTE: Do not attempt to perform calibration or flow check of samplers under windy conditions. Short-term wind velocity fluctuations will produce variable pressure readings by the orifice transfer standard's manometer. The measurement will be less precise because of the pressure variations.

3.0 CALIBRATION PROCEDURE

3.1 Summary

During calibration, a certified calibration orifice using 5 different plates (18, 13, 10, 7, and 5) that simulate dust loading on the filter is connected to the inlet of the sampler. The pressure drop across the orifice as measured by a manometer (ΔH_2O) is converted to a flowrate (Q_a) in cubic meters per minute (cmm) using the slope and intercept of the orifice calibration curve and corrected to the temperature and pressure at the time of calibration. The flowrate as measured by the sampler's rotometer in cubic feet per minute (cfm) is recorded and corrected to the temperature and pressure at the time of calibration (IC). Q_a in cfm and IC are used to generate a calibration curve. The slope and intercept of the calibration curve are used when performing quality control (QC) checks of the system. The correlation coefficient of the curve is used to ensure that the relationship between the 5 calibration points is sufficiently linear. Monthly average temperature and barometric pressure values are used to establish the sampler set points.

NOTE: EPA guidelines require 5 readings in the range of 32-46 cfm, with at least three readings in the 36-44 cfm range. #8-32 x1/2 standard pan or round head machine screws and nuts may be used to block (close) any number of holes on any of the resistance plates to obtain readings in the desired resistance range.

3.2 Frequency

3.2.1 Every 6 months;

3.2.2 After any repairs that might affect sampler calibration (e.g., replacing the motor);

3.2.3 If the results of a field flow-check exceed quality control limits (e.g., greater than ±7% from the sampler's indicated flow rate); or

3.2.4 Whenever a field flow-check or performance audit indicates that the sampler is out (or nearly out) of the acceptable flow-rate range.

3.3 Equipment and Materials

3.3.1 Orifice transfer standard with calibration traceable to NIST

3.3.2 Orifice standard Certificate of Conformance

3.3.3 A water or oil manometer, with a 0-400 mm (0-16”) range and a minimum scale division of 2 mm (0.1”).

3.3.4 PM 2.5 Calibration Form

3.3.5 Temperature and barometric pressure at the time of calibration.

3.3.6 Average temperature in Celsius and average pressure in in. Hg for either the month in which the calibration takes place, or the month during which sampling will take place, as most appropriate.

3.4 Pre-Calibration

3.4.1 Using the PM 2.5 Calibration Form, record:

3.4.1.1 The project name, location, date, and operator name.

3.4.1.2 Sampler Model, MFC serial number, calibrator Orifice Serial No.

3.4.1.3 The barometric pressure in in. Hg and ambient temperature in Celsius and at the time of the calibration. The electronic spreadsheet will then calculate the barometric pressure in mm Hg and the temperature in Kelvin.

3.4.1.4 The average monthly average monthly barometric pressure in in. Hg and the temperature in Celsius, for the month in which the calibration is taking place. The electronic spreadsheet will then automatically calculate the barometric pressure in mm Hg and the temperature in Kelvin.

Average Monthly Temperature and Pressure

Month	Air Temp (F)	Air Temp (C)	Stn Pres (in)
January	28	-2	29
February	28	-2	29
March	43	9	29
April	58	15	29
May	69	21	29
June	78	25	29
July	77	25	29
August	80	26	29
September	70	21	29
October	59	15	29
November	41	5	29
December	39	4	29

3.4.1.5 The "Orifice Calibration Curve relationship" (slope, intercept and correlation coefficient) values, which are found in the Certificate of Conformance. These values are tabulated on page 2 of the Certificate of NIST Traceable Calibration. Use the slope, intercept and correlation coefficient associate with the Q actual (Q_a) values for PM 2.5 sampling. Do not use the Q_{std} values.

3.5 Rotometer Calibration

This calibration occurs during instrument set-up, and should be checked at each calibration.

3.5.1 Using the "Orifice Calibration Curve" slope and intercept, calculate the inches of water, ΔH, which correlates to 40 CFM.

3.5.2 Assemble the manometer according to manufacturer instructions.

3.5.3 Install the 8X10 adapter with the plate that is closest to providing 40 CFM as calculated in step 3.5.1 and through trial and error measurements of the various plates, i.e., install the plate that results in the water displacement as calculated in 3.5.1.

3.5.4 Operate the system for at least 5 minutes at normal line voltage to equilibrate the Rotometer.

3.5.5 If necessary, adjust the Rotometer so the top of the red float reads 40 CFM (1.13 cmm) by GENTLY loosening the lock nut, adjusting the rotometer with small adjustments, and GENTLY tightening the lock nut.

3.6 Calibration Data Collection

3.6.1 Carefully remove the probe containing the anemometer wire. Unscrew the metal clamp and carefully remove the probe. Put the rubber tip on for safety.

WARNING: Always carefully handle the probe tip of the MFC. It is a sensitive hot wire anemometer probe.

WARNING: Ensure that there is no filter in the filter holder

3.6.2 Mount the 8X10 Adapter Plate (AD 810) supplied with the Calibration Kit to the 8X10 Filter Holder Assembly. Make certain that the Adapter Plate is firmly tightened onto the Filter Holder Assembly so that the sponge rubber is squeezed. (Finger–tight then ½ additional turn with screwdriver, plier, etc). This will ensure there are no air leaks. Check all gaskets and replace any questionable ones.

3.6.3 Mount the calibration orifice tank with the No. 18 resistance plate in place on the sampler.

3.6.4 Perform a leak check.

WARNING: Never run the motor for greater than 30 seconds with the orifice blocked to avoid overheating.

WARNING: Never try this leak test procedure with a manometer connected to the side tap on the calibration orifice or the blower motor. Liquid from the manometer could be drawn into the system and cause motor damage.

3.6.4.1 Turn on the sampler.

3.6.4.2 Cover the hole on top of the orifice and the pressure tap with your hands.

3.6.4.3 Listen for a high-pitched squealing sound made by escaping air. If this sound is heard, a leak is present and the top loading adapter hold-down nuts need to be re-tightened. All leaks must be eliminated before proceeding with the calibration. When the system is determined to be leak-free, turn off the sampler.

3.6.5 Assemble the manometer according to manufacturer instructions (attached).

3.6.6 Inspect the connecting tubing of the manometer for crimps or cracks.

3.6.7 Connect one leg of the water manometer to the pressure tap of the calibration orifice using the length of rubber tubing. Leave the other side of the manometer open to atmosphere. Both valves on the manometer have to be open for the liquid to flow freely. To read the manometer, sum the displacement of the liquid (one side goes up, one side goes down) on both sides of the manometer. The manometer must be held or mounted vertically to insure accurate readings.

3.6.8 Turn the air sampler on and after five minutes to allow stabilization, record the water manometer reading in the “Total in. H2O” column, and the rotometer reading in the “I” column of the PM 2.5 Calibration Form.

3.6.9 Repeat steps 3.5.4 – 3.5.8 for the remaining resistance plates (13, 10, 7 and 5).

3.6.10 Turn the sampler off and remove the orifice tank.

3.6.11 Reinstall the anemometer probe, being sure to rotate the probe such that the scribed axial line is "up" (facing flow).

3.7 Calculate Calibration Linear Regression

3.7.1 As the ΔH and I columns are populated, the electronic version of the PM 2.5 calibration form will automatically calculate the slope (mhv), intercept (bhv) and correlation coefficient (rhv) for the calibration data points.

A five-point calibration should yield a regression equation with a correlation coefficient of rhv > 0.990. All five calibration points should be in the 32 to 46 cfm range, and at least three of the calibration points should be within the acceptable operation limits of 36 to 44 cfm. If all conditions are not met, confer with the Project Manager to determine course of action. A graph is presented at the bottom of the spreadsheet which may show which data points are not sufficiently linear, and need to be re-measured.

This data is used only to assess the calibration points to see if any should be rerun. It is not used for subsequent data reduction. Average values for temperature and pressure during sampling periods are used for data reduction.

3.8 Calculate the Sampler Flow Rate (SFR) and Sampler Set Point (SSP)

3.8.1 The electronic version of the PM2.5 calibration form will automatically calculate the SFR and the SSP.

3.9 Adjust the MFC to agree with the SSP.

3.9.1 Load the sampler with a Micro-Quartz filter.

3.9.2 Turn on the sampler and allow it to warm up to normal operating conditions.

WARNING: No one should adjust or change the rotometer screws or MFC potentiometer set screw without proper training. Do not turn the potentiometer more than a few degrees at a time. Improper adjustments can result in compromise of data, test time, and equipment damage.

NOTE: All rotometer readings will be taken by reading the position of the TOP of the red/black float-looking at eye level.

3.9.3 Adjust the MFC set screw (turning potentiometer) until the flow/pressure recorder reads the SSP flow rate by GENTLY loosening the lock nut, adjusting the potentiometer with small adjustments, and GENTLY tightening the lock nut.

3.9.4 The sampler should now be sampling at the flow rate, corrected to average monthly meteorological conditions, which will result in the designated flow rate of 40 CFM.

4.0 Equations

4.1 Calibration Equations

4.1.1 Calculate the flow rate through the orifice tank during calibration (Q_a) using the following equation.

$$Q_a = \frac{1}{m} * \sqrt{(\Delta H_2O)\frac{T_{cal}}{P_{cal}}} - b$$

Where:

Q_a = actual volumetric flow rate through the transfer standard orifice, m_3/min

ΔH_2O = pressure drop across the orifice, in inches of H2O as measured by the manometer

T_{cal} = ambient temperature during calibration, K (K = ^oC + 273)

P_{cal} = ambient barometric pressure during calibration, mm Hg

b = intercept of the orifice calibration relationship

m = slope of the orifice calibration relationship

4.1.2 Convert Q_a to cfm.

$$Q_a\ (cfm) = Q_a\ (cmm) * 35.31\ \frac{cfm}{cmm}$$

4.1.3 Correct the rotometer response to actual conditions for each test calibration point using the following equation.

$$IC = I\sqrt{\frac{T_{cal}}{P_{cal}}}$$

Where:

IC = transformed Rotometer readings

I = Rotometer readings

4.1.4 Calculating the set points

4.1.4.1 Calculate and record the sampler adjusted set point flow rate (SFR) in cfm.

$$SFR = 40\left(\left(\frac{P_m}{P_{cal}}\right)\left(\frac{T_{cal}}{T_m}\right)\right)$$

Where:

SFR = sampler's monthly adjusted set point flow rate, ccm

40 = designed sampling flow rate of PM 2.5 samplers in cfm

P_m = monthly average barometric pressure, mm Hg

P_{cal} = actual ambient barometric pressure during calibration, mm Hg

T_m = monthly average temperature, K
T_{cal} = actual ambient temperature during calibration, K

1.1.1.1 Calculate and record the sampler adjusted set point (SSP) in cfm.

$$SSP = (mhv * SFR + bhv)\left(\sqrt{\frac{P_{cal}}{T_{cal}}}\right)$$

Where :
SSP = sampler set point
mhv = slope of sampler from hi vol calibration
SFR = sampler's monthly adjusted set point flow rate
bhv = intercept of sampler from hi vol calibration
P_{cal} = actual ambient barometric pressure during calibration, mm Hg
T_{cal} = actual ambient temperature during calibration, K

The SSP is the design operating flow rate of the PM 2.5 High Volume Sampler of 40 cfm, corrected to the current ambient temperature and barometric pressure.

PROCEDURE 5.2
ONE POINT FLOW AUDIT FOR PM 2.5 AIR MONITORING

1.0 ONE POINT FLOW AUDIT

1.1 Summary

During the check, with a filter in place, the orifice (without the restrictive plates) is mounted to the sampler inlet. The pressure drop across the orifice as measured by a manometer in mm Hg is converted to a flow rate in cmm using the slope and intercept of the orifice calibration curve and corrected to the temperature and pressure at the time of the check (Q_{aofa}). The sampler flow rate in cfm is converted to actual conditions using the slope and intercept of the hi-volume calibration curve and corrected to the temperature and pressure at the time of the check (Q_{ahvfa}). The orifice is then removed and the flow rate is measured under normal conditions. The percent difference and corrected flow rate is then calculated and compared to control limits. The sampler set point is then determined for the next sampling period.

1.2 Frequency

1.2.1 The QC flow check should be performed at least monthly.

1.3 Equipment and Materials

1.3.1 Orifice transfer standard with calibration traceable to NIST.

1.3.2 Orifice standard Certificate of Conformance

1.3.3 A water or oil manometer, with a 0-400 mm (0-16”) range and a minimum scale division of 2 mm (0.1”).

1.3.4 Latest PM 2.5 Calibration forms and information.

1.3.5 One Point Flow Audit Form.

1.3.6 Temperature and barometric pressure at the time of the flow check.

1.4 Pre-Check

1.4.1 On the One Point Flow Check Form, record:

1.4.1.1 The project name, location, date, and operator name.

1.4.1.2 Instrument information:

1.4.1.2.1 PM 2.5 inlet

1.4.1.2.2 MFC serial number

1.4.1.2.3 Calibrator Orifice Serial No.

1.4.1.3 The barometric pressure in in. Hg and the ambient temperature in Celsius and at the time of the calibration. The electronic spreadsheet will then calculate the barometric pressure in mm Hg and the temperature in Kelvin.

1.4.1.4 The average monthly barometric pressure in in. Hg and the average monthly temperature in Celsius for the next sampling period. The electronic spreadsheet will then automatically calculate the barometric pressure in mm Hg and the temperature in Kelvin. These are the values required to calculate the sampler flow rate (SFR) and sampler set point (SSP).

Average Monthly Temperature and Pressure

Month	Air Temp (F)	Air Temp (C)	Stn Pres (in)
January	28	-2	29
February	28	-2	29
March	43	9	29
April	58	15	29
May	69	21	29
June	78	25	29
July	77	25	29
August	80	26	29
September	70	21	29
October	59	15	29
November	41	5	29
December	39	4	29

1.4.1.5 The "Orifice Calibration Curve relationship" (slope, intercept and correlation coefficient) values, which are found in the Certificate of Conformance. These values are tabulated on the third sheet of the Certificate of Conformance (Sheet 2 of 5). Use the slope, intercept and correlation coefficient associate with the Q actual (Q_a) values for PM 2.5 sampling. Do not use the Q_{std} values.

1.5 Data Collection

1.5.1 Place a clean quartz filter into the 8X10 filter holder.

1.5.2 Mount the 8X10 Adapter Plate supplied with the Calibration Kit to the 8X10 Filter Holder Assembly. Make certain that the Adapter Plate is firmly tightened onto the Filter Holder Assembly so that the sponge rubber is squeezed. (Finger–tight then ½ additional turn with screwdriver, plier, etc). This will ensure there are no air leaks. Check all gaskets and replace any questionable ones.

1.5.3 Mount the same calibration orifice tank that was used to calibrate the sampler, but do not use the resistance plates.

1.5.4 Perform a leak check.

WARNING: Never run the motor for greater than 30 seconds with the orifice blocked to avoid overheating.

WARNING: Never try this leak test procedure with a manometer connected to the side tap on the calibration orifice or the blower motor. Liquid from the manometer could be drawn into the system and cause motor damage.

1.5.4.1 Turn on the sampler.

1.5.4.2 Cover the hole on top of the orifice and the pressure tap with your hands.

1.5.4.3 Listen for a high-pitched squealing sound made by escaping air. If this sound is heard, a leak is present and the top loading adapter hold-down nuts need to be re-tightened. All leaks must be eliminated before proceeding with the check. When the system is determined to be leak-free, turn off the sampler.

1.5.5 Assemble the manometer according to manufacturer instructions (attached).

1.5.6 Inspect the connecting tubing of the manometer for crimps or cracks.

1.5.7 Connect one leg of the water manometer to the pressure tap of the calibration orifice using the length of rubber tubing. Leave the other side of the manometer open to atmosphere. Both valves on the manometer have to be open for the liquid to flow freely. To read the manometer, sum the displacement of the liquid (one side goes up, one side goes down) on both sides of the manometer. The manometer must be held or mounted vertically to insure accurate readings.

1.5.8 Turn the air sampler on and after five minutes to allow stabilization, record the water manometer reading in the “Total in. H2O” column, and the rotometer reading in the “Ifa” column of the PM 2.5 One Point Flow Audit Form.

1.5.9 Turn the sampler off, remove the Calibration Orifice tank, and leave the filter in place.

1.5.10 Turn the sampler on and record the rotometer reading in the “Iwocofa” column of the One Point Flow Audit form.

1.5.11 Turn the sampler off.

1.5.12 The electronic version of the One Point Audit Form will automatically calculate the percent difference and the corrected flow rate. If the percent difference is greater than 7% the sampler fails the check and must be recalibrated. If the corrected flow rate is less than 36 or greater than 44 the sampler fails the check and must be recalibrated.

1.6 Calculate the SFR and SSP for the next sampling period

1.6.1 The electronic version of the One Point Flow Audit Form will automatically calculate the SFR and the SSP.

1.7 Adjust the MFC to agree with the SSP.

1.7.1 Turn on the sampler and allow it to warm up to normal operating conditions.

WARNING: No one should adjust or change the rotometer screws or MFC potentiometer set screw without proper training. Do not turn the potentiometer more than a few degrees at a time. Improper adjustments can result in compromise of data, test time, and equipment damage.

NOTE: All rotometer readings will be taken by reading the position of the TOP of the red/black float-looking at eye level.

1.7.2 Adjust the MFC set screw (turning potentiometer) until the flow/pressure recorder reads the SSP flow rate by GENTLY loosening the lock nut, adjusting the potentiometer with small adjustments, and GENTLY tightening the lock nut.

1.7.3 The sampler should now be sampling at the designed flow rate of 40 cfm corrected to current meteorological conditions.

1.8 One Check Flow Audit Equations

1.8.1 Calculate the flow through the orifice at ambient temperature and pressure at the time of the check in cfm.

$$Q_{aofa} = \left(\frac{1}{m} * \sqrt{\Delta H_2O * \frac{T_{chk}}{P_{chk}}} - b \right) * \frac{cfm}{cmm}$$

Where:

Q_{aofa} = actual volumetric flow rate as indicated by the transfer standard orifice, m^3/min at ambient temperature and pressure at the time of the check

ΔH_2O = pressure drop across the orifice, in. H_2O as measured by the manometer

T_{chk} = ambient temperature during the check, K (K = ^{O}C + 273)

P_{chk} = ambient barometric pressure during the check, mm Hg

b = intercept of the orifice calibration relationship

m = slope of the orifice calibration relationship

$\frac{cfm}{cmm} = 35.31$

1.8.2 Calculate the flow through the MFC at ambient temperature and pressure at the time of the check.

$$Q_{ahvaf} = \frac{1}{mhv} * \sqrt{I_f * \frac{T_{chk}}{P_{chk}}} - bhv$$

Where:

Q_{ahvaf} = actual volumetric flow rate as indicated by the rotometer, m3/min at ambient temperature and pressure at the time of the check

ΔH_2O = pressure drop across the orifice, in. H_2O as measured by the manometer.
T_{chk} = ambient temperature during the check, K (K = ^{O}C + 273).
P_{chk} = ambient barometric pressure during the check, mm Hg.
bhv = intercept of the MFC calibration relationship.
mhv = slope of the MFC calibration relationship.

1.8.3 Calculate the % difference between the Q_{aofa} and the Q_{ahvfa}.

$$\%\ Diff = \frac{Q_{ahvfa} - Q_{aofa}}{Q_{aofa}} * 100$$

The percent difference should be ≤ 7%.

1.8.4 Calculate the corrected flow rate.

$$Corrected\ Flow\ Rate = Q_{ahvfa} * \frac{100 - \%\ diff}{100}$$

The corrected flow rate should be 40 cfm ± 10%, or between 36 and 44 cfm.

PROCEDURE 5.3
SAMPLING PROCEDURE FOR PM 2.5 AIR MONITORING

1.0 PURPOSE

1.0 To describe the procedures for performing PM 2.5 sampling.

2.0 RESPONSIBILITY

2.1 The Project Manager and Site Coordinator are responsible for assuring that this procedure is implemented.

2.2 Survey team personnel are responsible for following this procedure.

3.0 PROCEDURE

3.1 Perform the one point flow audit procedure if necessary.

3.2 Equipment and Materials

3.2.1 Quartz filter, pre-numbered.

3.2.2 PM 2.5 Field Data Form

3.2.3 Average temperature in Celsius and average pressure in in. Hg for the month in which the sampling took place.

Average Monthly Temperature and Pressure

Month	Air Temp (F)	Air Temp (C)	Stn Pres (in)
January	28	-2	29
February	28	-2	29
March	43	9	29
April	58	15	29
May	69	21	29
June	78	25	29
July	77	25	29
August	80	26	29
September	70	21	29
October	59	15	29
November	41	5	29
December	39	4	29

3.3 Pre-Monitoring

3.3.1 On the Field Data Sheet record:

3.3.1.1 The project name, station location, date, and the name of the operator loading the filter onto the sampler.

3.3.1.2 Sampler model, MFC serial number, and filter number.

3.3.1.3 The average temperature in degrees Celsius and Pressure in in. Hg for the sampling period as measured by the meteorological station.

3.3.1.4 The calibration curve relationships from the latest calibration.

3.3.1.5 The Sampler Flow Rate and Sampler Set Point from the latest One Point Flow Audit or the latest calibration.

3.3.2 Inspect the filter

3.3.2.1 Backlight each filter to inspect for pinholes, particles, or other visible imperfections.

3.4 Monitoring

3.4.1 Loosen the nuts that secure the inlet to the base and gently tilt back the inlet to allow access to the filter support screen.

3.4.2 Examine the filter support screen. If the screen appears dirty, wipe it clean.

3.4.3 Center the filter onto the filter holder, rough side up.

3.4.4 Tighten the thumb nuts to hold the filter securely. Check that the gasket is in good condition and has not deteriorated.

Caution: Tighten the thumb nuts evenly on alternate corners to properly align and seat the gasket. The nuts should be only hand-tightened because too much compression can damage the sealing gasket.

3.4.5 Lower the sample inlet. Secure the sample inlet to the sampler base. Open the front door of the sampler and examine the flow controller. Remove any moisture inside by wiping it with a clean cloth.

3.4.6 Energize the sampler. Allow for warm-up.

3.4.7 Observe proper SSP and adjust the MFC constant flow potentiometer if necessary to achieve the SSP.

3.4.8 Record the start time and the flow rate.

3.4.9 Secure the shelter.

3.5 Post Monitoring

3.5.1 Record the rotometer reading in column I of the PM 2.5 Field Data Form.

3.5.2 Indicate on the form whether the rotometer reading is within 10% of the Sampler Set Point.

3.5.3 De-energize the sampler

3.5.4 Remove the filter

3.5.5 Record the Sample Stop Time and calculate the elapsed time in minutes.

3.5.6 Check the porous disk

3.5.6.1 Remove the outer clamp ring (the “round cake mold pan” in which the porous disc rests) by loosening the four spring-loaded knurled finger tightening nuts

3.5.6.2 The white porous disc gets dark from the larger than 2.5 micron particles adhering to it. Wipe it with a rag. Then rub a finger over it. If it feels wet, close the cartridge. If it feels dry, re-saturate by adding more oil.

WARNING: Do NOT over-wet or it will become “super-saturated” and leak/spill the oil all over during reassembly of the PM2.5 cartridge back into the shelter assembly.

APPENDIX I

FIELD DATA FORMS

Auxier & Associates, Inc.
Radiological Health, Safety and Environmental Consulting
A USA Environment, L.P. Company

PM2.5 FIELD DATA FORM

Auxier & Associates, Inc.
9821 Cogdill Road, Suite 1
Knoxville, TN 37932
(865) 675-3669

Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A1	Operator (Filter Loading): 5	Bill Abernathy
Sampler Model:	PM2.5	Date: 6	10/14/15
MFC Serial No. 2	713282	Operator (Filter Collection): 5	B. Abernathy / A. Luna
		Date: 6	11/9/15

Average Conditions During Sampling Period (from met tower data)

Avg Monthly Pressure (in. Hg)	30.83	Corrected Avg Monthly Pressure (mm Hg)	783.082
Avg Monthly Temp (deg. C) 7	14.42	Corrected Avg Monthly Temperature (deg. K)	287.58

Hi Vol Calibration Curve Relationships (station-specific)

8	Slope (mhv) =	**0.3781**	9/30/2015
9	Intercept (bhv) =	**10.0159**	9/30/2015
10	Correlation Coefficient (rhv) =	**-0.9987**	9/30/2015

Set Points During Sampling Period

11	SFR =	**39.48**	10/14/2015
12	SSP =	**40.9**	10/14/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time 13	**10/14/15 14:02**	**Stop Date/Time** 16	**11/9/15 11:28**	**Elapsed Time (min)**	**37,286**
Flow Rate (cfm) 14	**41**	**Flow Rate (cfm)** 15	**39**	**Avg Flow Rate (cfm)**	**40**

I cfm	I ml/min	I total ml
40	1,132,674	42,232,877,700

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-4.88%

H_2S reading at collection: <10.0 ppm

Reviewed by: _____

Auxier & Associates, Inc.
Radiological Health, Safety and Environmental Consulting
A USA Environment, L.P. Company

PM2.5 FIELD DATA FORM

Auxier & Associates, Inc.
9821 Cogdill Road, Suite 1
Knoxville, TN 37932
(865) 675-3669

Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A2	Operator (Filter Loading): 5	Bill Abernathy
Sampler Model:	PM2.5	Date: 6	10/15/15
MFC Serial No. 2	710989	Operator (Filter Collection): 5	B. Abernathy / A. Luna
		Date: 6	11/9/15

Average Conditions During Sampling Period (from met tower data)

Avg Monthly Pressure (in. Hg)	30.83	Corrected Avg Monthly Pressure (mm Hg)	783.082
Avg Monthly Temp (deg. C) 7	14.37	Corrected Avg Monthly Temperature (deg. K)	287.53

Hi Vol Calibration Curve Relationships (station-specific)

8	Slope (mhv) =	**0.3939**	10/6/2015
9	Intercept (bhv) =	**8.9471**	10/6/2015
10	Correlation Coefficient (rhv) =	**-0.9996**	10/6/2015

Set Points During Sampling Period

11	SFR =	**39.37**	10/15/2015
12	SSP =	**40.1**	10/15/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	13 **10/15/15 11:03**	**Stop Date/Time**	16 **11/9/15 13:22**	**Elapsed Time (min)**	**36,139**
Flow Rate (cfm)	14 **40**	**Flow Rate (cfm)**	15 **38**	**Avg Flow Rate (cfm)**	**39**

I cfm	I ml/min	I total ml
39	1,104,357	39,910,358,300

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-5.00%

H_2S reading at collection: <10.0 ppm

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Radiological Health, Safety and Environmental Consulting
A USA Environment, L.P. Company

PM2.5 FIELD DATA FORM

Auxier & Associates, Inc.
9821 Cogdill Road, Suite 1
Knoxville, TN 37932
(865) 675-3669

Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A3	Operator (Filter Loading): 5	Bill Abernathy
Sampler Model:	PM2.5	Date: 6	10/15/15
MFC Serial No. 2	714198	Operator (Filter Collection): 5	B. Abernathy / A. Luna
		Date: 6	11/9/15

Average Conditions During Sampling Period (from met tower data)

Avg Monthly Pressure (in. Hg)	30.83	Corrected Avg Monthly Pressure (mm Hg)	783.082
Avg Monthly Temp (deg. C) 7	14.37	Corrected Avg Monthly Temperature (deg. K)	287.53

Hi Vol Calibration Curve Relationships (station-specific)

8	Slope (mhv) =	**0.4110**	9/30/2015
9	Intercept (bhv) =	**7.6685**	9/30/2015
10	Correlation Coefficient (rhv) =	**-0.9990**	9/30/2015

Set Points During Sampling Period

11	SFR =	**39.37**	10/15/2015
12	SSP =	**39.1**	10/15/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	**13 10/15/15 10:42**	**Stop Date/Time**	**16 11/9/15 13:40**	**Elapsed Time (min)**	**36,178**
Flow Rate (cfm)	**14 39**	**Flow Rate (cfm)**	**15 36**	**Avg Flow Rate (cfm)**	**38**

I cfm	I ml/min	I total ml
38	1,061,882	38,416,757,900

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-7.69%

H_2S reading at collection: <10.0 ppm

Reviewed by: _____

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Radiological Health, Safety and Environmental Consulting
A USA Environment, L.P. Company

PM2.5 FIELD DATA FORM

Auxier & Associates, Inc.
9821 Cogdill Road, Suite 1
Knoxville, TN 37932
(865) 675-3669

Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A4	Operator (Filter Loading): 5	Bill Abernathy
Sampler Model:	PM2.5	Date: 6	10/15/15
MFC Serial No. 2	714199	Operator (Filter Collection): 5	B. Abernathy / A. Luna
		Date: 6	11/9/15

Average Conditions During Sampling Period (from met tower data)

Avg Monthly Pressure (in. Hg)	30.83	Corrected Avg Monthly Pressure (mm Hg)	783.082
Avg Monthly Temp (deg. C) 7	14.37	Corrected Avg Monthly Temperature (deg. K)	287.53

Hi Vol Calibration Curve Relationships (station-specific)

8	Slope (mhv) =	**0.3658**	9/30/2015
9	Intercept (bhv) =	**10.3229**	9/30/2015
10	Correlation Coefficient (rhv) =	**-0.9991**	9/30/2015

Set Points During Sampling Period

11	SFR =	**39.37**	10/15/2015
12	SSP =	**40.6**	10/15/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time 13	**10/15/15 10:12**	**Stop Date/Time** 16	**11/9/15 13:51**	**Elapsed Time (min)**	**36,219**
Flow Rate (cfm) 14	**41**	**Flow Rate (cfm)** 15	**39**	**Avg Flow Rate (cfm)**	**40**

I cfm	I ml/min	I total ml
40	1,132,674	41,024,314,700

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-4.88%

H_2S reading at collection: <10.0 ppm

Reviewed by: _____

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A USA Environment, L.P. Company

PM2.5 FIELD DATA FORM

Auxier & Associates, Inc.
9821 Cogdill Road, Suite 1
Knoxville, TN 37932
(865) 675-3669

Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A5	Operator (Filter Loading): 5	Bill Abernathy
Sampler Model:	PM2.5	Date: 6	10/14/15
MFC Serial No. 2	714200	Operator (Filter Collection): 5	B. Abernathy / A. Luna
		Date: 6	11/9/15

Average Conditions During Sampling Period (from met tower data)

Avg Monthly Pressure (in. Hg)	30.83	Corrected Avg Monthly Pressure (mm Hg)	783.082
Avg Monthly Temp (deg. C) 7	14.42	Corrected Avg Monthly Temperature (deg. K)	287.58

Hi Vol Calibration Curve Relationships (station-specific)

8	Slope (mhv) =	**0.3815**	9/29/2015
9	Intercept (bhv) =	**9.8325**	9/29/2015
10	Correlation Coefficient (rhv) =	**-0.9994**	9/29/2015

Set Points During Sampling Period

11	SFR =	**39.48**	10/14/2015
12	SSP =	**40.8**	10/14/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	13 **10/14/15 15:32**	**Stop Date/Time**	16 **11/9/15 10:22**	**Elapsed Time (min)**	**37,130**
Flow Rate (cfm)	14 **41**	**Flow Rate (cfm)**	15 **38**	**Avg Flow Rate (cfm)**	**40**

I cfm	I ml/min	I total ml
40	1,118,515	41,530,478,300

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-7.32%

H_2S reading at collection: <10.0 ppm

Reviewed by: _____

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A USA Environment, L.P. Company

PM2.5 FIELD DATA FORM

Auxier & Associates, Inc.
9821 Cogdill Road, Suite 1
Knoxville, TN 37932
(865) 675-3669

Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A6	Operator (Filter Loading): 5	Bill Abernathy
Sampler Model:	PM2.5	Date: 6	10/14/15
MFC Serial No. 2	714201	Operator (Filter Collection): 5	B. Abernathy / A. Luna
		Date: 6	11/9/15

Average Conditions During Sampling Period (from met tower data)

Avg Monthly Pressure (in. Hg)	30.83	Corrected Avg Monthly Pressure (mm Hg)	783.082
Avg Monthly Temp (deg. C) 7	14.42	Corrected Avg Monthly Temperature (deg. K)	287.58

Hi Vol Calibration Curve Relationships (station-specific)

8	Slope (mhv) =	**0.3984**	9/30/2015
9	Intercept (bhv) =	**8.8211**	9/30/2015
10	Correlation Coefficient (rhv) =	**-0.9994**	9/30/2015

Set Points During Sampling Period

11	SFR =	**39.48**	10/14/2015
12	SSP =	**40.2**	10/14/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	13 **10/14/15 13:22**	**Stop Date/Time**	16 **11/9/15 11:07**	**Elapsed Time (min)**	**37,305**
Flow Rate (cfm)	14 **40**	**Flow Rate (cfm)**	15 **35**	**Avg Flow Rate (cfm)**	**38**

I cfm	I ml/min	I total ml
38	1,061,882	39,613,498,600

Is the collection flow rate within 10% of the loading flow rate? **Y** (**N**) -12.50%

H_2S reading at collection: <10.0 ppm

Reviewed by: _____

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A USA Environment, L.P. Company

PM2.5 FIELD DATA FORM

Auxier & Associates, Inc.
9821 Cogdill Road, Suite 1
Knoxville, TN 37932
(865) 675-3669

Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A7	Operator (Filter Loading): 5	Bill Abernathy
Sampler Model:	PM2.5	Date: 6	10/14/15
MFC Serial No. 2	714202	Operator (Filter Collection): 5	B. Abernathy / A. Luna
		Date: 6	11/9/15

Average Conditions During Sampling Period (from met tower data)

Avg Monthly Pressure (in. Hg)	30.83	Corrected Avg Monthly Pressure (mm Hg)	783.082
Avg Monthly Temp (deg. C) 7	14.42	Corrected Avg Monthly Temperature (deg. K)	287.58

Hi Vol Calibration Curve Relationships (station-specific)

8	Slope (mhv) =	**0.4029**	9/29/2015
9	Intercept (bhv) =	**8.0948**	9/29/2015
10	Correlation Coefficient (rhv) =	**-0.9989**	9/29/2015

Set Points During Sampling Period

11	SFR =	**39.48**	10/14/2015
12	SSP =	**39.3**	10/14/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	13 **10/14/15 15:08**	**Stop Date/Time**	16 **11/9/15 10:00**	**Elapsed Time (min)**	**37,132**
Flow Rate (cfm)	14 **39**	**Flow Rate (cfm)**	15 **37**	**Avg Flow Rate (cfm)**	**38**

I cfm	I ml/min	I total ml
38	1,076,040	39,955,523,600

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-5.13%

H_2S reading at collection: <10.0 ppm

Reviewed by: _____

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Radiological Health, Safety and Environmental Consulting
A USA Environment, L.P. Company

PM2.5 FIELD DATA FORM

Auxier & Associates, Inc.
9821 Cogdill Road, Suite 1
Knoxville, TN 37932
(865) 675-3669

Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A8	Operator (Filter Loading): 5	Bill Abernathy
Sampler Model:	PM2.5	Date: 6	10/14/15
MFC Serial No. 2	714203	Operator (Filter Collection): 5	B. Abernathy / A. Luna
		Date: 6	11/9/15

Average Conditions During Sampling Period (from met tower data)

Avg Monthly Pressure (in. Hg)	30.83	Corrected Avg Monthly Pressure (mm Hg)	783.082
Avg Monthly Temp (deg. C) 7	14.42	Corrected Avg Monthly Temperature (deg. K)	287.58

Hi Vol Calibration Curve Relationships (station-specific)

8	Slope (mhv) =	**0.3924**	9/29/2015
9	Intercept (bhv) =	**8.7365**	9/29/2015
10	Correlation Coefficient (rhv) =	**-0.9994**	9/29/2015

Set Points During Sampling Period

11	SFR =	**39.48**	10/14/2015
12	SSP =	**39.7**	10/14/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	13 **10/14/15 16:30**	**Stop Date/Time**	16 **11/9/15 10:39**	**Elapsed Time (min)**	**37,089**
Flow Rate (cfm)	14 **40**	**Flow Rate (cfm)**	15 **40**	**Avg Flow Rate (cfm)**	**40**

I cfm	I ml/min	I total ml
40	1,132,674	42,009,740,900

Is the collection flow rate within 10% of the loading flow rate? (Y) N

0.00%

H_2S reading at collection: <10.0 ppm

Reviewed by: _____

Auxier & Associates, Inc.
Radiological Health, Safety and Environmental Consulting
A USA Environment, L.P. Company

PM2.5 FIELD DATA FORM

Auxier & Associates, Inc.
9821 Cogdill Road, Suite 1
Knoxville, TN 37932
(865) 675-3669

Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A9	Operator (Filter Loading): 5	Bill Abernathy
Sampler Model:	PM2.5	Date: 6	10/15/15
MFC Serial No. 2	714204	Operator (Filter Collection): 5	B. Abernathy / A. Luna
		Date: 6	11/9/15

Average Conditions During Sampling Period (from met tower data)

Avg Monthly Pressure (in. Hg)	30.83	Corrected Avg Monthly Pressure (mm Hg)	783.082
Avg Monthly Temp (deg. C) 7	14.37	Corrected Avg Monthly Temperature (deg. K)	287.53

Hi Vol Calibration Curve Relationships (station-specific)

8	Slope (mhv) =	**0.3788**	9/30/2015
9	Intercept (bhv) =	**9.2254**	9/30/2015
10	Correlation Coefficient (rhv) =	**-0.9980**	9/30/2015

Set Points During Sampling Period

11	SFR =	**39.37**	10/15/2015
12	SSP =	**39.6**	10/15/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time 13	**10/15/15 9:48**	**Stop Date/Time** 16	**11/9/15 14:06**	**Elapsed Time (min)**	**36,258**
Flow Rate (cfm) 14	**40**	**Flow Rate (cfm)** 15	**34**	**Avg Flow Rate (cfm)**	**37**

I cfm	I ml/min	I total ml
37	1,047,723	37,988,352,300

Is the collection flow rate within 10% of the loading flow rate? **Y** (**N**) -15.00%

H_2S reading at collection: <10.0 ppm

Reviewed by: _____

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PM2.5 FIELD DATA FORM

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A10	Operator (Filter Loading): 5	Bill Abernathy
Sampler Model:	PM2.5	Date: 6	10/15/15
MFC Serial No. 2	714205	Operator (Filter Collection): 5	B. Abernathy / A. Luna
		Date: 6	11/9/15

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.83	Corrected Avg Monthly Pressure (mm Hg)	783.082
Avg Monthly Temp (deg. C) 7	14.37	Corrected Avg Monthly Temperature (deg. K)	287.53

Hi Vol Calibration Curve Relationships (station-specific)			
8	Slope (mhv) =	**0.3422**	9/29/2015
9	Intercept (bhv) =	**10.7212**	9/29/2015
10	Correlation Coefficient (rhv) =	**-0.9983**	9/29/2015

Set Points During Sampling Period			
11	SFR =	**39.37**	10/15/2015
12	SSP =	**39.7**	10/15/2015

Start of Current Sampling (loading)			End of Current Sampling (collection)				
Start Date/Time	13	**10/15/15 9:18**	**Stop Date/Time**	16	**11/9/15 9:34**	**Elapsed Time (min)**	**36,016**
Flow Rate (cfm)	14	**40**	**Flow Rate (cfm)**	15	**35**	**Avg Flow Rate (cfm)**	**38**

cfm	ml/min	total ml
38	1,061,882	38,244,733,000

Is the collection flow rate within 10% of the loading flow rate? **Y** (**N**) -12.50%

H_2S reading at collection: <10.0 ppm

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PM2.5 FIELD DATA FORM

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A11	Operator (Filter Loading): 5	Bill Abernathy
Sampler Model:	PM2.5	Date: 6	10/14/15
MFC Serial No. 2	714206	Operator (Filter Collection): 5	B. Abernathy / A. Luna
		Date: 6	11/9/15

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.83	Corrected Avg Monthly Pressure (mm Hg)	783.082
Avg Monthly Temp (deg. C) 7	14.42	Corrected Avg Monthly Temperature (deg. K)	287.58

Hi Vol Calibration Curve Relationships (station-specific)			
8	Slope (mhv) =	**0.4157**	9/29/2015
9	Intercept (bhv) =	**7.3309**	9/29/2015
10	Correlation Coefficient (rhv) =	**-0.9997**	9/29/2015

Set Points During Sampling Period			
11	SFR =	**39.48**	10/14/2015
12	SSP =	**38.9**	10/14/2015

Start of Current Sampling (loading)			End of Current Sampling (collection)				
Start Date/Time	13	**10/14/15 14:42**	**Stop Date/Time**	16	**11/9/15 14:23**	**Elapsed Time (min)**	**37,421**
Flow Rate (cfm)	14	**39**	**Flow Rate (cfm)**	15	**39**	**Avg Flow Rate (cfm)**	**39**

cfm	ml/min	total ml
39	1,104,357	41,326,143,900

Is the collection flow rate within 10% of the loading flow rate? (Y) N

0.00%

H_2S reading at collection: <10.0 ppm

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A12	Operator (Filter Loading): 5	Bill Abernathy
Sampler Model:	PM2.5	Date: 6	10/15/15
MFC Serial No. 2	714207	Operator (Filter Collection): 5	B. Abernathy / A. Luna
		Date: 6	11/9/15

Average Conditions During Sampling Period (from met tower data)

Avg Monthly Pressure (in. Hg)	30.83	Corrected Avg Monthly Pressure (mm Hg)	783.082
Avg Monthly Temp (deg. C) 7	14.37	Corrected Avg Monthly Temperature (deg. K)	287.53

Hi Vol Calibration Curve Relationships (station-specific)

8	Slope (mhv) =	**0.3132**	9/29/2015
9	Intercept (bhv) =	**11.9178**	9/29/2015
10	Correlation Coefficient (rhv) =	**-0.9989**	9/29/2015

Set Points During Sampling Period

11	SFR =	**39.37**	10/15/2015
12	SSP =	**39.8**	10/15/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time 13	**10/15/15 8:22**	**Stop Date/Time** 16	**11/9/15 8:39**	**Elapsed Time (min)**	**36,017**
Flow Rate (cfm) 14	**40**	**Flow Rate (cfm)** 15	**39**	**Avg Flow Rate (cfm)**	**40**

I cfm	I ml/min	I total ml
40	1,118,515	40,285,570,600

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-2.50%

H_2S reading at collection: <10.0 ppm

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PM2.5 FIELD DATA FORM

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A13	Operator (Filter Loading): 5	Bill Abernathy
Sampler Model:	PM2.5	Date: 6	10/15/15
MFC Serial No. 2	714208	Operator (Filter Collection): 5	B. Abernathy / A. Luna
		Date: 6	11/9/15

Average Conditions During Sampling Period (from met tower data)

Avg Monthly Pressure (in. Hg)	30.83	Corrected Avg Monthly Pressure (mm Hg)	783.082
Avg Monthly Temp (deg. C) 7	14.37	Corrected Avg Monthly Temperature (deg. K)	287.53

Hi Vol Calibration Curve Relationships (station-specific)

8	Slope (mhv) =	**0.3146**	9/29/2015
9	Intercept (bhv) =	**12.1135**	9/29/2015
10	Correlation Coefficient (rhv) =	**-0.9985**	9/29/2015

Set Points During Sampling Period

11	SFR =	**39.37**	10/15/2015
12	SSP =	**40.2**	10/15/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time 13	**10/15/15 8:49**	**Stop Date/Time** 16	**11/9/15 9:08**	**Elapsed Time (min)**	**36,019**
Flow Rate (cfm) 14	**40**	**Flow Rate (cfm)** 15	**38**	**Avg Flow Rate (cfm)**	**39**

I cfm	I ml/min	I total ml
39	1,104,357	39,777,835,400

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-5.00%

H_2S reading at collection: <10.0 ppm

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One Point Flow Audit

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Project Name:	ENG-WES	Date: 2	11/9/15
Station Location: 1	A1	Operator: 3	B. Abernathy / A. Luna

Sampler Model	PM2.5	MFC Serial No. 5	713282
Sampler Serial No. 4	713282	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	30.26	P_{chk} (mm Hg)	768.604
Temperature (deg. C) (F-32)x0.555 7	2.78	T_{chk} (deg. K)	275.935

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	4	Corr. Avg Monthly Temp (deg. K)	277.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/30/2015
Intercept (b) =	0.0141	9/30/2015
Correlation Coefficient (r) =	0.9999	9/30/2015

Hi Vol Calib Curve Relationships (station-specific)

9/30/2015	9	Slope (mhv) =	**0.3781**
9/30/2015	10	Intercept (bhv) =	**10.0159**
9/30/2015	11	Correlation Coefficient (rhv) =	**-0.9987**
9/30/2015	12	T_{cal} (deg. K) =	**286.96**
9/30/2015	13	P_{cal} (mm Hg) =	**762.00**

Set Point for Next Sampling Period:

SFR =		38.17
17	SSP =	41

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.2	15 39	16 39	43.83	36.81

Percent Difference (should be ≤ 7%): -16.019

Corrected Flow Rate (should be between 36 and 44 cfm): 43

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Project Name:	ENG-WES	Date: 2	11/9/15
Station Location: 1	A2	Operator: 3	B. Abernathy / A. Luna

Sampler Model	PM2.5	MFC Serial No. 5	710989
Sampler Serial No. 4	710989	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg)	6 30.26	P_{chk} (mm Hg)	768.604
Temperature (deg. C) (F-32)x0.555	7 2.78	T_{chk} (deg. K)	275.935

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C)	8 4	Corr. Avg Monthly Temp (deg. K)	277.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	10/6/2015
Intercept (b) =	0.0141	10/6/2015
Correlation Coefficient (r) =	0.9999	10/6/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3939**	10/6/2015
10	Intercept (bhv) =	**8.9471**	10/6/2015
11	Correlation Coefficient (rhv) =	**-0.9996**	10/6/2015
12	T_{cal} (deg. K) =	**290.38**	10/6/2015
13	P_{cal} (mm Hg) =	**766.06**	10/6/2015

Set Point for Next Sampling Period:

	SFR =	38.17
17	SSP =	40

Definitions

Q_{aofa} = flow rate with orifice calibration relationships

Q_{ahvfa} = flow rate with hi vol calibration relationships

I_{fa} = flow rate with orifice in place

I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.4	15 37	16 37	44.44	35.12

Percent Difference (should be ≤ 7%): -20.978

Corrected Flow Rate (should be between 36 and 44 cfm): 42

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Project Name:	ENG-WES	Date: 2	11/9/15
Station Location: 1	A3	Operator: 3	B. Abernathy / A. Luna

Sampler Model	PM2.5	MFC Serial No. 5	714198
Sampler Serial No. 4	714198	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	30.26	P_{chk} (mm Hg)	768.604
Temperature (deg. C) (F-32)x0.555 7	2.78	T_{chk} (deg. K)	275.935

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	4	Corr. Avg Monthly Temp (deg. K)	277.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/30/2015
Intercept (b) =	0.0141	9/30/2015
Correlation Coefficient (r) =	0.9999	9/30/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.4110**	9/30/2015
10	Intercept (bhv) =	**7.6685**	9/30/2015
11	Correlation Coefficient (rhv) =	**-0.9990**	9/30/2015
12	T_{cal} (deg. K) =	**286.96**	9/30/2015
13	P_{cal} (mm Hg) =	**762.00**	9/30/2015

Set Point for Next Sampling Period:

	SFR =	38.17
17	SSP =	39

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.0	15 37	16 37	43.21	36.59

Percent Difference (should be ≤ 7%): -15.326

Corrected Flow Rate (should be between 36 and 44 cfm): 42

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Project Name:	ENG-WES	Date: 2	11/9/15
Station Location: 1	A4	Operator: 3	B. Abernathy / A. Luna

Sampler Model	PM2.5	MFC Serial No. 5	714199
Sampler Serial No. 4	714199	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	30.26	P_{chk} (mm Hg)	768.604
Temperature (deg. C) (F-32)x0.555 7	2.78	T_{chk} (deg. K)	275.935

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	4	Corr. Avg Monthly Temp (deg. K)	277.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/30/2015
Intercept (b) =	0.0141	9/30/2015
Correlation Coefficient (r) =	0.9999	9/30/2015

Hi Vol Calib Curve Relationships (station-specific)

9/30/2015	9	Slope (mhv) =	**0.3658**
9/30/2015	10	Intercept (bhv) =	**10.3229**
9/30/2015	11	Correlation Coefficient (rhv) =	**-0.9991**
9/30/2015	12	T_{cal} (deg. K) =	**286.96**
9/30/2015	13	P_{cal} (mm Hg) =	**762.00**

Set Point for Next Sampling Period:

	SFR =	38.17
17	SSP =	41

Definitions

Q_{aofa} = flow rate with orifice calibration relationships

Q_{ahvfa} = flow rate with hi vol calibration relationships

I_{fa} = flow rate with orifice in place

I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.6	15 39	16 39	45.04	37.21

Percent Difference (should be ≤ 7%): -17.399

Corrected Flow Rate (should be between 36 and 44 cfm): 44

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Project Name:	ENG-WES	Date: 2	11/9/15
Station Location: 1	A5	Operator: 3	B. Abernathy / A. Luna

Sampler Model	PM2.5	MFC Serial No. 5	714200
Sampler Serial No. 4	714200	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	30.26	P_{chk} (mm Hg)	768.604
Temperature (deg. C) (F-32)x0.555 7	2.78	T_{chk} (deg. K)	275.935

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	4	Corr. Avg Monthly Temp (deg. K)	277.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/29/2015
Intercept (b) =	0.0141	9/29/2015
Correlation Coefficient (r) =	0.9999	9/29/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3815**	9/29/2015
10	Intercept (bhv) =	**9.8325**	9/29/2015
11	Correlation Coefficient (rhv) =	**-0.9994**	9/29/2015
12	T_{cal} (deg. K) =	**293.66**	9/29/2015
13	P_{cal} (mm Hg) =	**762.00**	9/29/2015

Set Point for Next Sampling Period:

	SFR =	38.17
17	SSP =	41

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.5	15 40	16 40	44.74	39.32

Percent Difference (should be ≤ 7%): -12.129

Corrected Flow Rate (should be between 36 and 44 cfm): 44

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Project Name:	ENG-WES	Date: 2	11/9/15
Station Location: 1	A6	Operator: 3	B. Abernathy / A. Luna

Sampler Model	PM2.5	MFC Serial No. 5	714201
Sampler Serial No. 4	714201	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	30.26	P_{chk} (mm Hg)	768.604
Temperature (deg. C) (F-32)x0.555 7	2.78	T_{chk} (deg. K)	275.935

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	4	Corr. Avg Monthly Temp (deg. K)	277.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/30/2015
Intercept (b) =	0.0141	9/30/2015
Correlation Coefficient (r) =	0.9999	9/30/2015

Hi Vol Calib Curve Relationships (station-specific)

9/30/2015	9	Slope (mhv) =	**0.3984**
9/30/2015	10	Intercept (bhv) =	**8.8211**
9/30/2015	11	Correlation Coefficient (rhv) =	**-0.9994**
9/30/2015	12	T_{cal} (deg. K) =	**286.96**
9/30/2015	13	P_{cal} (mm Hg) =	**762.00**

Set Point for Next Sampling Period:

	SFR =	38.17
17	SSP =	40

Definitions

Q_{aofa} = flow rate with orifice calibration relationships

Q_{ahvfa} = flow rate with hi vol calibration relationships

I_{fa} = flow rate with orifice in place

I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.1	15 39	16 39	43.52	37.93

Percent Difference (should be ≤ 7%): -12.842

Corrected Flow Rate (should be between 36 and 44 cfm): 43

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Project Name:	ENG-WES	Date: 2	11/9/15
Station Location: 1	A7	Operator: 3	B. Abernathy / A. Luna

Sampler Model	PM2.5	MFC Serial No. 5	714202
Sampler Serial No. 4	714202	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	30.26	P_{chk} (mm Hg)	768.604
Temperature (deg. C) (F-32)x0.555 7	2.78	T_{chk} (deg. K)	275.935

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	4	Corr. Avg Monthly Temp (deg. K)	277.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/29/2015
Intercept (b) =	0.0141	9/29/2015
Correlation Coefficient (r) =	0.9999	9/29/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.4029**	9/29/2015
10	Intercept (bhv) =	**8.0948**	9/29/2015
11	Correlation Coefficient (rhv) =	**-0.9989**	9/29/2015
12	T_{cal} (deg. K) =	**293.66**	9/29/2015
13	P_{cal} (mm Hg) =	**762.00**	9/29/2015

Set Point for Next Sampling Period:

	SFR =	38.17
17	SSP =	39

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.4	15 39	16 39	44.44	40.00

Percent Difference (should be ≤ 7%): -9.992

Corrected Flow Rate (should be between 36 and 44 cfm): 44

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Project Name:	ENG-WES	Date: 2	11/9/15
Station Location: 1	A8	Operator: 3	B. Abernathy / A. Luna

Sampler Model	PM2.5	MFC Serial No. 5	714203
Sampler Serial No. 4	714203	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	30.26	P_{chk} (mm Hg)	768.604
Temperature (deg. C) (F-32)x0.555 7	2.78	T_{chk} (deg. K)	275.935

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	4	Corr. Avg Monthly Temp (deg. K)	277.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/29/2015
Intercept (b) =	0.0141	9/29/2015
Correlation Coefficient (r) =	0.9999	9/29/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3924**	9/29/2015
10	Intercept (bhv) =	**8.7365**	9/29/2015
11	Correlation Coefficient (rhv) =	**-0.9994**	9/29/2015
12	T_{cal} (deg. K) =	**293.66**	9/29/2015
13	P_{cal} (mm Hg) =	**762.00**	9/29/2015

Set Point for Next Sampling Period:

	SFR =	38.17
17	SSP =	40

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 6.9	15 38	16 38	42.90	37.85

Percent Difference (should be ≤ 7%): -11.756

Corrected Flow Rate (should be between 36 and 44 cfm): 42

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One Point Flow Audit

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Project Name:	ENG-WES	Date: 2	11/9/15
Station Location: 1	A9	Operator: 3	B. Abernathy / A. Luna

Sampler Model	PM2.5	MFC Serial No. 5	714204
Sampler Serial No. 4	714204	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	30.26	P_{chk} (mm Hg)	768.604
Temperature (deg. C) (F-32)x0.555 7	2.78	T_{chk} (deg. K)	275.935

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	4	Corr. Avg Monthly Temp (deg. K)	277.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/30/2015
Intercept (b) =	0.0141	9/30/2015
Correlation Coefficient (r) =	0.9999	9/30/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3788**	9/30/2015
10	Intercept (bhv) =	**9.2254**	9/30/2015
11	Correlation Coefficient (rhv) =	**-0.9980**	9/30/2015
12	T_{cal} (deg. K) =	**286.96**	9/30/2015
13	P_{cal} (mm Hg) =	**762.00**	9/30/2015

Set Point for Next Sampling Period:

	SFR =	38.17
17	SSP =	40

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 5.4	15 34	16 34	37.89	30.73

Percent Difference (should be ≤ 7%): -18.906

Corrected Flow Rate (should be between 36 and 44 cfm): 37

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Project Name:	ENG-WES	Date: 2	11/9/15
Station Location: 1	A10	Operator: 3	B. Abernathy / A. Luna

Sampler Model	PM2.5	MFC Serial No. 5	714205
Sampler Serial No. 4	714205	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	30.26	P_{chk} (mm Hg)	768.604
Temperature (deg. C) (F-32)x0.555 7	2.78	T_{chk} (deg. K)	275.935

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	4	Corr. Avg Monthly Temp (deg. K)	277.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/29/2015
Intercept (b) =	0.0141	9/29/2015
Correlation Coefficient (r) =	0.9999	9/29/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3422**	9/29/2015
10	Intercept (bhv) =	**10.7212**	9/29/2015
11	Correlation Coefficient (rhv) =	**-0.9983**	9/29/2015
12	T_{cal} (deg. K) =	**293.66**	9/29/2015
13	P_{cal} (mm Hg) =	**762.00**	9/29/2015

Set Point for Next Sampling Period:

	SFR =	38.17
17	SSP =	40

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.7	15 38	16 38	45.34	37.61

Percent Difference (should be ≤ 7%): -17.062

Corrected Flow Rate (should be between 36 and 44 cfm): 44

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Project Name:	ENG-WES	Date: 2	11/9/15
Station Location: 1	A11	Operator: 3	B. Abernathy / A. Luna

Sampler Model	PM2.5	MFC Serial No. 5	714206
Sampler Serial No. 4	714206	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	30.26	P_{chk} (mm Hg)	768.604
Temperature (deg. C) (F-32)x0.555 7	2.78	T_{chk} (deg. K)	275.935

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	4	Corr. Avg Monthly Temp (deg. K)	277.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/29/2015
Intercept (b) =	0.0141	9/29/2015
Correlation Coefficient (r) =	0.9999	9/29/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.4157**	9/29/2015
10	Intercept (bhv) =	**7.3309**	9/29/2015
11	Correlation Coefficient (rhv) =	**-0.9997**	9/29/2015
12	T_{cal} (deg. K) =	**293.66**	9/29/2015
13	P_{cal} (mm Hg) =	**762.00**	9/29/2015

Set Point for Next Sampling Period:

	SFR =	38.17
17	SSP =	39

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.4	15 37	16 37	44.44	37.62

Percent Difference (should be ≤ 7%): -15.349

Corrected Flow Rate (should be between 36 and 44 cfm): 43

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Project Name:	ENG-WES	Date: 2	11/9/15
Station Location: 1	A12	Operator: 3	B. Abernathy / A. Luna

Sampler Model	PM2.5	MFC Serial No. 5	714207
Sampler Serial No. 4	714207	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	30.26	P_{chk} (mm Hg)	768.604
Temperature (deg. C) (F-32)x0.555 7	2.78	T_{chk} (deg. K)	275.935

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	4	Corr. Avg Monthly Temp (deg. K)	277.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/29/2015
Intercept (b) =	0.0141	9/29/2015
Correlation Coefficient (r) =	0.9999	9/29/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3132**	9/29/2015
10	Intercept (bhv) =	**11.9178**	9/29/2015
11	Correlation Coefficient (rhv) =	**-0.9989**	9/29/2015
12	T_{cal} (deg. K) =	**293.66**	9/29/2015
13	P_{cal} (mm Hg) =	**762.00**	9/29/2015

Set Point for Next Sampling Period:

	SFR =	38.17
17	SSP =	40

Definitions

Q_{aofa} = flow rate with orifice calibration relationships

Q_{ahvfa} = flow rate with hi vol calibration relationships

I_{fa} = flow rate with orifice in place

I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.5	15 39	16 39	44.74	39.25

Percent Difference (should be ≤ 7%): -12.278

Corrected Flow Rate (should be between 36 and 44 cfm): 44

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Project Name:	ENG-WES	Date: 2	11/9/15
Station Location: 1	A13	Operator: 3	B. Abernathy / A. Luna

Sampler Model	PM2.5	MFC Serial No. 5	714208
Sampler Serial No. 4	714208	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	30.26	P_{chk} (mm Hg)	768.604
Temperature (deg. C) (F-32)x0.555 7	2.78	T_{chk} (deg. K)	275.935

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	4	Corr. Avg Monthly Temp (deg. K)	277.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/29/2015
Intercept (b) =	0.0141	9/29/2015
Correlation Coefficient (r) =	0.9999	9/29/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3146**	9/29/2015
10	Intercept (bhv) =	**12.1135**	9/29/2015
11	Correlation Coefficient (rhv) =	**-0.9985**	9/29/2015
12	T_{cal} (deg. K) =	**293.66**	9/29/2015
13	P_{cal} (mm Hg) =	**762.00**	9/29/2015

Set Point for Next Sampling Period:

	SFR =	38.17
17	SSP =	40

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.3	15 38	16 38	44.14	36.48

Percent Difference (should be ≤ 7%): -17.347

Corrected Flow Rate (should be between 36 and 44 cfm): 43

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PM2.5 FIELD DATA FORM

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A1	Operator (Filter Loading): 5	B. Abernathy / A. Luna
Sampler Model:	PM2.5	Date: 6	11/9/15
MFC Serial No. 2	713282	Operator (Filter Collection): 5	B. Abernathy
		Date: 6	12/8/15

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.84	Corrected Avg Monthly Pressure (mm Hg)	783.336
Avg Monthly Temp (deg. C) 7	8.35	Corrected Avg Monthly Temperature (deg. K)	281.51

Hi Vol Calibration Curve Relationships (station-specific)			
8	Slope (mhv) =	**0.3781**	9/30/2015
9	Intercept (bhv) =	**10.0159**	9/30/2015
10	Correlation Coefficient (rhv) =	**-0.9987**	9/30/2015

Set Points During Sampling Period			
11	SFR =	**38.17**	11/9/2015
12	SSP =	**40.8**	11/9/2015

Start of Current Sampling (loading)			End of Current Sampling (collection)				
Start Date/Time	13	**11/9/15 11:30**	**Stop Date/Time**	16	**12/8/15 12:36**	**Elapsed Time (min)**	**41,826**
Flow Rate (cfm)	14	**41**	**Flow Rate (cfm)**	15	**40**	**Avg Flow Rate (cfm)**	**41**

I cfm	I ml/min	I total ml
41	1,146,832	47,967,407,200

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-2.44%

H_2S reading at collection: <10.0 ppm

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PM2.5 FIELD DATA FORM

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A2	Operator (Filter Loading): 5	B. Abernathy / A. Luna
Sampler Model:	PM2.5	Date: 6	11/9/15
MFC Serial No. 2	710989	Operator (Filter Collection): 5	B. Abernathy
		Date: 6	12/8/15

Average Conditions During Sampling Period (from met tower data)

Avg Monthly Pressure (in. Hg)	30.84	Corrected Avg Monthly Pressure (mm Hg)	783.336
Avg Monthly Temp (deg. C) 7	8.35	Corrected Avg Monthly Temperature (deg. K)	281.51

Hi Vol Calibration Curve Relationships (station-specific)

8	Slope (mhv) =	**0.3939**	10/6/2015
9	Intercept (bhv) =	**8.9471**	10/6/2015
10	Correlation Coefficient (rhv) =	**-0.9996**	10/6/2015

Set Points During Sampling Period

11	SFR =	**38.17**	11/9/2015
12	SSP =	**40.0**	11/9/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	13 **11/9/15 13:24**	**Stop Date/Time**	16 **12/8/15 14:20**	**Elapsed Time (min)**	**41,816**
Flow Rate (cfm)	14 **40**	**Flow Rate (cfm)**	15 **41**	**Avg Flow Rate (cfm)**	**41**

I cfm	I ml/min	I total ml
41	1,146,832	47,955,938,900

Is the collection flow rate within 10% of the loading flow rate? (Y) N

2.50%

H_2S reading at collection: <10.0 ppm

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PM2.5 FIELD DATA FORM

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A3	Operator (Filter Loading): 5	B. Abernathy / A. Luna
Sampler Model:	PM2.5	Date: 6	11/9/15
MFC Serial No. 2	714198	Operator (Filter Collection): 5	B. Abernathy
		Date: 6	12/8/15

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.84	Corrected Avg Monthly Pressure (mm Hg)	783.336
Avg Monthly Temp (deg. C) 7	8.35	Corrected Avg Monthly Temperature (deg. K)	281.51

Hi Vol Calibration Curve Relationships (station-specific)			
8	Slope (mhv) =	**0.4110**	9/30/2015
9	Intercept (bhv) =	**7.6685**	9/30/2015
10	Correlation Coefficient (rhv) =	**-0.9990**	9/30/2015

Set Points During Sampling Period			
11	SFR =	**38.17**	11/9/2015
12	SSP =	**39.0**	11/9/2015

Start of Current Sampling (loading)			End of Current Sampling (collection)				
Start Date/Time	13	**11/9/15 13:42**	**Stop Date/Time**	16	**12/8/15 14:02**	**Elapsed Time (min)**	**41,780**
Flow Rate (cfm)	14	**39**	**Flow Rate (cfm)**	15	**37**	**Avg Flow Rate (cfm)**	**38**

I cfm	I ml/min	I total ml
38	1,076,040	44,956,958,300

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-5.13%

H_2S reading at collection: <10.0 ppm

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PM2.5 FIELD DATA FORM

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A4	Operator (Filter Loading): 5	B. Abernathy / A. Luna
Sampler Model:	PM2.5	Date: 6	11/9/15
MFC Serial No. 2	714199	Operator (Filter Collection): 5	B. Abernathy
		Date: 6	12/8/15

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.84	Corrected Avg Monthly Pressure (mm Hg)	783.336
Avg Monthly Temp (deg. C) 7	8.35	Corrected Avg Monthly Temperature (deg. K)	281.51

Hi Vol Calibration Curve Relationships (station-specific)			
8	Slope (mhv) =	**0.3658**	9/30/2015
9	Intercept (bhv) =	**10.3229**	9/30/2015
10	Correlation Coefficient (rhv) =	**-0.9991**	9/30/2015

Set Points During Sampling Period			
11	SFR =	**38.17**	11/9/2015
12	SSP =	**40.5**	11/9/2015

Start of Current Sampling (loading)			End of Current Sampling (collection)				
Start Date/Time	13	**11/9/15 13:53**	**Stop Date/Time**	16	**12/8/15 13:43**	**Elapsed Time (min)**	**41,750**
Flow Rate (cfm)	14	**41**	**Flow Rate (cfm)**	15	**40**	**Avg Flow Rate (cfm)**	**41**

I cfm	I ml/min	I total ml
41	1,146,832	47,880,248,000

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-2.44%

H_2S reading at collection: <10.0 ppm

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A5	Operator (Filter Loading): 5	B. Abernathy / A. Luna
Sampler Model:	PM2.5	Date: 6	11/9/15
MFC Serial No. 2	714200	Operator (Filter Collection): 5	B. Abernathy
		Date: 6	12/8/15

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.84	Corrected Avg Monthly Pressure (mm Hg)	783.336
Avg Monthly Temp (deg. C) 7	8.35	Corrected Avg Monthly Temperature (deg. K)	281.51

Hi Vol Calibration Curve Relationships (station-specific)			
8	Slope (mhv) =	**0.3815**	9/29/2015
9	Intercept (bhv) =	**9.8325**	9/29/2015
10	Correlation Coefficient (rhv) =	**-0.9994**	9/29/2015

Set Points During Sampling Period			
11	SFR =	**38.17**	11/9/2015
12	SSP =	**40.7**	11/9/2015

Start of Current Sampling (loading)			End of Current Sampling (collection)				
Start Date/Time	13	**11/9/15 10:24**	**Stop Date/Time**	16	**12/8/15 11:36**	**Elapsed Time (min)**	**41,832**
Flow Rate (cfm)	14	**41**	**Flow Rate (cfm)**	15	**40**	**Avg Flow Rate (cfm)**	**41**

cfm	ml/min	total ml
41	1,146,832	47,974,288,200

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-2.44%

H_2S reading at collection: <10.0 ppm

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A6	Operator (Filter Loading): 5	B. Abernathy / A. Luna
Sampler Model:	PM2.5	Date: 6	11/9/15
MFC Serial No. 2	714201	Operator (Filter Collection): 5	B. Abernathy
		Date: 6	12/8/15

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.84	Corrected Avg Monthly Pressure (mm Hg)	783.336
Avg Monthly Temp (deg. C) 7	8.35	Corrected Avg Monthly Temperature (deg. K)	281.51

Hi Vol Calibration Curve Relationships (station-specific)			
8	Slope (mhv) =	**0.3984**	9/30/2015
9	Intercept (bhv) =	**8.8211**	9/30/2015
10	Correlation Coefficient (rhv) =	**-0.9994**	9/30/2015

Set Points During Sampling Period			
11	SFR =	**38.17**	11/9/2015
12	SSP =	**40.1**	11/9/2015

Start of Current Sampling (loading)			End of Current Sampling (collection)				
Start Date/Time	13	**11/9/15 11:09**	**Stop Date/Time**	16	**12/8/15 12:22**	**Elapsed Time (min)**	**41,833**
Flow Rate (cfm)	14	**40**	**Flow Rate (cfm)**	15	**40**	**Avg Flow Rate (cfm)**	**40**

I cfm	I ml/min	I total ml
40	1,132,674	47,383,145,800

Is the collection flow rate within 10% of the loading flow rate? (Y) N

0.00%

H_2S reading at collection: <10.0 ppm

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A7	Operator (Filter Loading): 5	B. Abernathy / A. Luna
Sampler Model:	PM2.5	Date: 6	11/9/15
MFC Serial No. 2	714202	Operator (Filter Collection): 5	B. Abernathy
		Date: 6	12/8/15

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.84	Corrected Avg Monthly Pressure (mm Hg)	783.336
Avg Monthly Temp (deg. C) 7	8.35	Corrected Avg Monthly Temperature (deg. K)	281.51

Hi Vol Calibration Curve Relationships (station-specific)			
8	Slope (mhv) =	**0.4029**	9/29/2015
9	Intercept (bhv) =	**8.0948**	9/29/2015
10	Correlation Coefficient (rhv) =	**-0.9989**	9/29/2015

Set Points During Sampling Period			
11	SFR =	**38.17**	11/9/2015
12	SSP =	**39.2**	11/9/2015

Start of Current Sampling (loading)			End of Current Sampling (collection)				
Start Date/Time	13	**11/9/15 10:02**	**Stop Date/Time**	16	**12/8/15 11:13**	**Elapsed Time (min)**	**41,831**
Flow Rate (cfm)	14	**39**	**Flow Rate (cfm)**	15	**38**	**Avg Flow Rate (cfm)**	**39**

I cfm	I ml/min	I total ml
39	1,090,199	45,604,097,400

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-2.56%

H_2S reading at collection: <10.0 ppm

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A8	Operator (Filter Loading): 5	B. Abernathy / A. Luna
Sampler Model:	PM2.5	Date: 6	11/9/15
MFC Serial No. 2	714203	Operator (Filter Collection): 5	B. Abernathy
		Date: 6	12/8/15

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.84	Corrected Avg Monthly Pressure (mm Hg)	783.336
Avg Monthly Temp (deg. C) 7	8.35	Corrected Avg Monthly Temperature (deg. K)	281.51

Hi Vol Calibration Curve Relationships (station-specific)			
8	Slope (mhv) =	**0.3924**	9/29/2015
9	Intercept (bhv) =	**8.7365**	9/29/2015
10	Correlation Coefficient (rhv) =	**-0.9994**	9/29/2015

Set Points During Sampling Period			
11	SFR =	**38.17**	11/9/2015
12	SSP =	**39.6**	11/9/2015

Start of Current Sampling (loading)			End of Current Sampling (collection)				
Start Date/Time	13	**11/9/15 10:41**	**Stop Date/Time**	16	**12/8/15 11:59**	**Elapsed Time (min)**	**41,838**
Flow Rate (cfm)	14	**40**	**Flow Rate (cfm)**	15	**40**	**Avg Flow Rate (cfm)**	**40**

I cfm	I ml/min	I total ml
40	1,132,674	47,388,809,100

Is the collection flow rate within 10% of the loading flow rate? (Y) N

0.00%

H_2S reading at collection: <10.0 ppm

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A9	Operator (Filter Loading): 5	B. Abernathy / A. Luna
Sampler Model:	PM2.5	Date: 6	11/9/15
MFC Serial No. 2	714204	Operator (Filter Collection): 5	B. Abernathy
		Date: 6	12/8/15

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.84	Corrected Avg Monthly Pressure (mm Hg)	783.336
Avg Monthly Temp (deg. C) 7	8.35	Corrected Avg Monthly Temperature (deg. K)	281.51

Hi Vol Calibration Curve Relationships (station-specific)			
8	Slope (mhv) =	**0.3788**	9/30/2015
9	Intercept (bhv) =	**9.2254**	9/30/2015
10	Correlation Coefficient (rhv) =	**-0.9980**	9/30/2015

Set Points During Sampling Period			
11	SFR =	**38.17**	11/9/2015
12	SSP =	**39.5**	11/9/2015

Start of Current Sampling (loading)			End of Current Sampling (collection)				
Start Date/Time	13	**11/9/15 14:08**	**Stop Date/Time**	16	**12/8/15 13:20**	**Elapsed Time (min)**	**41,712**
Flow Rate (cfm)	14	**40**	**Flow Rate (cfm)**	15	**45**	**Avg Flow Rate (cfm)**	**43**

I cfm	I ml/min	I total ml
43	1,203,466	50,198,973,000

Is the collection flow rate within 10% of the loading flow rate? **Y** (**N**) 12.50%

H_2S reading at collection: <10.0 ppm

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A10	Operator (Filter Loading): 5	B. Abernathy / A. Luna
Sampler Model:	PM2.5	Date: 6	11/9/15
MFC Serial No. 2	714205	Operator (Filter Collection): 5	B. Abernathy
		Date: 6	12/8/15

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.84	Corrected Avg Monthly Pressure (mm Hg)	783.336
Avg Monthly Temp (deg. C) 7	8.35	Corrected Avg Monthly Temperature (deg. K)	281.51

Hi Vol Calibration Curve Relationships (station-specific)			
8	Slope (mhv) =	**0.3422**	9/29/2015
9	Intercept (bhv) =	**10.7212**	9/29/2015
10	Correlation Coefficient (rhv) =	**-0.9983**	9/29/2015

Set Points During Sampling Period			
11	SFR =	**38.17**	11/9/2015
12	SSP =	**39.7**	11/9/2015

Start of Current Sampling (loading)			End of Current Sampling (collection)				
Start Date/Time	13	**11/9/15 9:36**	**Stop Date/Time**	16	**12/8/15 10:57**	**Elapsed Time (min)**	**41,841**
Flow Rate (cfm)	14	**40**	**Flow Rate (cfm)**	15	**40**	**Avg Flow Rate (cfm)**	**40**

I cfm	I ml/min	I total ml
40	1,132,674	47,392,207,100

Is the collection flow rate within 10% of the loading flow rate? (Y) N

0.00%

H_2S reading at collection: <10.0 ppm

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A11	Operator (Filter Loading): 5	B. Abernathy / A. Luna
Sampler Model:	PM2.5	Date: 6	11/9/15
MFC Serial No. 2	714206	Operator (Filter Collection): 5	B. Abernathy
		Date: 6	12/8/15

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.84	Corrected Avg Monthly Pressure (mm Hg)	783.336
Avg Monthly Temp (deg. C) 7	8.35	Corrected Avg Monthly Temperature (deg. K)	281.51

Hi Vol Calibration Curve Relationships (station-specific)			
8	Slope (mhv) =	**0.4157**	9/29/2015
9	Intercept (bhv) =	**7.3309**	9/29/2015
10	Correlation Coefficient (rhv) =	**-0.9997**	9/29/2015

Set Points During Sampling Period			
11	SFR =	**38.17**	11/9/2015
12	SSP =	**38.7**	11/9/2015

Start of Current Sampling (loading)			End of Current Sampling (collection)				
Start Date/Time	13	**11/9/15 14:25**	**Stop Date/Time**	16	**12/8/15 14:49**	**Elapsed Time (min)**	**41,784**
Flow Rate (cfm)	14	**39**	**Flow Rate (cfm)**	15	**36**	**Avg Flow Rate (cfm)**	**38**

I cfm	I ml/min	I total ml
38	1,061,882	44,369,666,900

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-7.69%

H_2S reading at collection: <10.0 ppm

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A12	Operator (Filter Loading): 5	B. Abernathy / A. Luna
Sampler Model:	PM2.5	Date: 6	11/9/15
MFC Serial No. 2	714207	Operator (Filter Collection): 5	B. Abernathy
		Date: 6	12/8/15

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.84	Corrected Avg Monthly Pressure (mm Hg)	783.336
Avg Monthly Temp (deg. C) 7	8.35	Corrected Avg Monthly Temperature (deg. K)	281.51

Hi Vol Calibration Curve Relationships (station-specific)			
8	Slope (mhv) =	**0.3132**	9/29/2015
9	Intercept (bhv) =	**11.9178**	9/29/2015
10	Correlation Coefficient (rhv) =	**-0.9989**	9/29/2015

Set Points During Sampling Period			
11	SFR =	**38.17**	11/9/2015
12	SSP =	**39.8**	11/9/2015

Start of Current Sampling (loading)			End of Current Sampling (collection)				
Start Date/Time	13	**11/9/15 8:41**	**Stop Date/Time**	16	**12/8/15 10:05**	**Elapsed Time (min)**	**41,844**
Flow Rate (cfm)	14	**40**	**Flow Rate (cfm)**	15	**40**	**Avg Flow Rate (cfm)**	**40**

I cfm	I ml/min	I total ml
40	1,132,674	47,395,605,200

Is the collection flow rate within 10% of the loading flow rate? (Y) N

0.00%

H_2S reading at collection: <10.0 ppm

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location: 1	A13	Operator (Filter Loading): 5	B. Abernathy / A. Luna
Sampler Model:	PM2.5	Date: 6	11/9/15
MFC Serial No. 2	714208	Operator (Filter Collection): 5	B. Abernathy
		Date: 6	12/8/15

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.84	Corrected Avg Monthly Pressure (mm Hg)	783.336
Avg Monthly Temp (deg. C) 7	8.35	Corrected Avg Monthly Temperature (deg. K)	281.51

Hi Vol Calibration Curve Relationships (station-specific)			
8	Slope (mhv) =	**0.3146**	9/29/2015
9	Intercept (bhv) =	**12.1135**	9/29/2015
10	Correlation Coefficient (rhv) =	**-0.9985**	9/29/2015

Set Points During Sampling Period			
11	SFR =	**38.17**	11/9/2015
12	SSP =	**40.3**	11/9/2015

Start of Current Sampling (loading)			End of Current Sampling (collection)				
Start Date/Time	13	**11/9/15 9:10**	**Stop Date/Time**	16	**12/8/15 10:25**	**Elapsed Time (min)**	**41,835**
Flow Rate (cfm)	14	**40**	**Flow Rate (cfm)**	15	**36**	**Avg Flow Rate (cfm)**	**38**

I cfm	I ml/min	I total ml
38	1,076,040	45,016,140,500

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-10.00%

H_2S reading at collection: <10.0 ppm

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Project Name:	ENG-WES	Date: 2	12/8/15
Station Location: 1	A1	Operator: 3	B. Abernathy

Sampler Model	PM2.5	MFC Serial No. 5	713282
Sampler Serial No. 4	713282	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	29.98	P_{chk} (mm Hg)	761.492
Temperature (deg. C) (F-32)x0.555 7	8.88	T_{chk} (deg. K)	282.04

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	-2	Corr. Avg Monthly Temp (deg. K)	271.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/30/2015
Intercept (b) =	0.0141	9/30/2015
Correlation Coefficient (r) =	0.9999	9/30/2015
		9/30/2015
		9/30/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3781**
10	Intercept (bhv) =	**10.0159**
11	Correlation Coefficient (rhv) =	**-0.9987**
12	T_{cal} (deg. K) =	**286.96**
13	P_{cal} (mm Hg) =	**762.00**

Set Point for Next Sampling Period:

	SFR =	40.24
17	SSP =	41

Definitions

Q_{aofa} = flow rate with orifice calibration relationships

Q_{ahvfa} = flow rate with hi vol calibration relationships

I_{fa} = flow rate with orifice in place

I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 6.9	15 40	16 40	43.58	38.43

Percent Difference (should be ≤ 7%): -11.810

Corrected Flow Rate (should be between 36 and 44 cfm): 43

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Project Name:	ENG-WES	Date: 2	12/8/15
Station Location: 1	A2	Operator: 3	B. Abernathy

Sampler Model	PM2.5	MFC Serial No. 5	710989
Sampler Serial No. 4	710989	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	29.98	P_{chk} (mm Hg)	761.492
Temperature (deg. C) (F-32)x0.555 7	8.88	T_{chk} (deg. K)	282.04

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	-2	Corr. Avg Monthly Temp (deg. K)	271.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	10/6/2015
Intercept (b) =	0.0141	10/6/2015
Correlation Coefficient (r) =	0.9999	10/6/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3939**	10/6/2015
10	Intercept (bhv) =	**8.9471**	10/6/2015
11	Correlation Coefficient (rhv) =	**-0.9996**	10/6/2015
12	T_{cal} (deg. K) =	**290.38**	10/6/2015
13	P_{cal} (mm Hg) =	**766.06**	10/6/2015

Set Point for Next Sampling Period:

	SFR =	40.24
17	SSP =	41

Definitions

Q_{aofa} = flow rate with orifice calibration relationships

Q_{ahvfa} = flow rate with hi vol calibration relationships

I_{fa} = flow rate with orifice in place

I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.1	15 41	16 41	44.21	41.37

Percent Difference (should be ≤ 7%): -6.428

Corrected Flow Rate (should be between 36 and 44 cfm): 44

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Project Name:	ENG-WES	Date: 2	12/8/15
Station Location: 1	A3	Operator: 3	B. Abernathy

Sampler Model	PM2.5	MFC Serial No. 5	714198
Sampler Serial No. 4	714198	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	29.98	P_{chk} (mm Hg)	761.492
Temperature (deg. C) (F-32)x0.555 7	8.88	T_{chk} (deg. K)	282.04

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	-2	Corr. Avg Monthly Temp (deg. K)	271.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/30/2015
Intercept (b) =	0.0141	9/30/2015
Correlation Coefficient (r) =	0.9999	9/30/2015

Hi Vol Calib Curve Relationships (station-specific)

9/30/2015	9	Slope (mhv) =	**0.4110**
9/30/2015	10	Intercept (bhv) =	**7.6685**
9/30/2015	11	Correlation Coefficient (rhv) =	**-0.9990**
9/30/2015	12	T_{cal} (deg. K) =	**286.96**
9/30/2015	13	P_{cal} (mm Hg) =	**762.00**

Set Point for Next Sampling Period:

	SFR =	40.24
17	SSP =	40

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.0	15 38	16 38	43.90	38.08

Percent Difference (should be ≤ 7%): -13.249

Corrected Flow Rate (should be between 36 and 44 cfm): 43

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Project Name:	ENG-WES	Date: 2	12/8/15
Station Location: 1	A4	Operator: 3	B. Abernathy

Sampler Model	PM2.5	MFC Serial No. 5	714199
Sampler Serial No. 4	714199	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg)	6 29.98	P_{chk} (mm Hg)	761.492
Temperature (deg. C) (F-32)x0.555	7 8.88	T_{chk} (deg. K)	282.04

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C)	8 -2	Corr. Avg Monthly Temp (deg. K)	271.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/30/2015
Intercept (b) =	0.0141	9/30/2015
Correlation Coefficient (r) =	0.9999	9/30/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3658**	9/30/2015
10	Intercept (bhv) =	**10.3229**	9/30/2015
11	Correlation Coefficient (rhv) =	**-0.9991**	9/30/2015
12	T_{cal} (deg. K) =	**286.96**	9/30/2015
13	P_{cal} (mm Hg) =	**762.00**	9/30/2015

Set Point for Next Sampling Period:

	SFR =	40.24
17	SSP =	41

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.2	15 40	16 40	44.53	38.88

Percent Difference (should be ≤ 7%): -12.670

Corrected Flow Rate (should be between 36 and 44 cfm): 44

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Project Name:	ENG-WES	Date: 2	12/8/15
Station Location: 1	A5	Operator: 3	B. Abernathy

Sampler Model	PM2.5	MFC Serial No. 5	714200
Sampler Serial No. 4	714200	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	29.98	P_{chk} (mm Hg)	761.492
Temperature (deg. C) (F-32)x0.555 7	8.88	T_{chk} (deg. K)	282.04

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	-2	Corr. Avg Monthly Temp (deg. K)	271.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/29/2015
Intercept (b) =	0.0141	9/29/2015
Correlation Coefficient (r) =	0.9999	9/29/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3815**	9/29/2015
10	Intercept (bhv) =	**9.8325**	9/29/2015
11	Correlation Coefficient (rhv) =	**-0.9994**	9/29/2015
12	T_{cal} (deg. K) =	**293.66**	9/29/2015
13	P_{cal} (mm Hg) =	**762.00**	9/29/2015

Set Point for Next Sampling Period:

	SFR =	40.24
17	SSP =	41

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.3	15 40	16 40	44.84	39.32

Percent Difference (should be ≤ 7%): -12.314

Corrected Flow Rate (should be between 36 and 44 cfm): 44

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Project Name:	ENG-WES	Date: 2	12/8/15
Station Location: 1	A6	Operator: 3	B. Abernathy

Sampler Model	PM2.5	MFC Serial No. 5	714201
Sampler Serial No. 4	714201	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg)	6 29.98	P_{chk} (mm Hg)	761.492
Temperature (deg. C) (F-32)x0.555	7 8.88	T_{chk} (deg. K)	282.04

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C)	8 -2	Corr. Avg Monthly Temp (deg. K)	271.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/30/2015
Intercept (b) =	0.0141	9/30/2015
Correlation Coefficient (r) =	0.9999	9/30/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3984**	9/30/2015
10	Intercept (bhv) =	**8.8211**	9/30/2015
11	Correlation Coefficient (rhv) =	**-0.9994**	9/30/2015
12	T_{cal} (deg. K) =	**286.96**	9/30/2015
13	P_{cal} (mm Hg) =	**762.00**	9/30/2015

Set Point for Next Sampling Period:

	SFR =	40.24
17	SSP =	41

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.1	15 40	16 40	44.21	39.47

Percent Difference (should be ≤ 7%): -10.721

Corrected Flow Rate (should be between 36 and 44 cfm): 44

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Project Name:	ENG-WES	Date: 2	12/8/15
Station Location: 1	A7	Operator: 3	B. Abernathy

Sampler Model	PM2.5	MFC Serial No. 5	714202
Sampler Serial No. 4	714202	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg)	6 29.98	P_{chk} (mm Hg)	761.492
Temperature (deg. C) (F-32)x0.555	7 8.88	T_{chk} (deg. K)	282.04

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C)	8 -2	Corr. Avg Monthly Temp (deg. K)	271.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/29/2015
Intercept (b) =	0.0141	9/29/2015
Correlation Coefficient (r) =	0.9999	9/29/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.4029**	9/29/2015
10	Intercept (bhv) =	**8.0948**	9/29/2015
11	Correlation Coefficient (rhv) =	**-0.9989**	9/29/2015
12	T_{cal} (deg. K) =	**293.66**	9/29/2015
13	P_{cal} (mm Hg) =	**762.00**	9/29/2015

Set Point for Next Sampling Period:

	SFR =	40.24
17	SSP =	40

Definitions

Q_{aofa} = flow rate with orifice calibration relationships

Q_{ahvfa} = flow rate with hi vol calibration relationships

I_{fa} = flow rate with orifice in place

I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 6.9	15 38	16 38	43.58	38.46

Percent Difference (should be ≤ 7%): -11.745

Corrected Flow Rate (should be between 36 and 44 cfm): 43

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Project Name:	ENG-WES	Date: 2	12/8/15
Station Location: 1	A8	Operator: 3	B. Abernathy

Sampler Model	PM2.5	MFC Serial No. 5	714203
Sampler Serial No. 4	714203	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	29.98	P_{chk} (mm Hg)	761.492
Temperature (deg. C) (F-32)x0.555 7	8.88	T_{chk} (deg. K)	282.04

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	-2	Corr. Avg Monthly Temp (deg. K)	271.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/29/2015
Intercept (b) =	0.0141	9/29/2015
Correlation Coefficient (r) =	0.9999	9/29/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3924**	9/29/2015
10	Intercept (bhv) =	**8.7365**	9/29/2015
11	Correlation Coefficient (rhv) =	**-0.9994**	9/29/2015
12	T_{cal} (deg. K) =	**293.66**	9/29/2015
13	P_{cal} (mm Hg) =	**762.00**	9/29/2015

Set Point for Next Sampling Period:

	SFR =	40.24
17	SSP =	40

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.1	15 39	16 39	44.21	39.44

Percent Difference (should be ≤ 7%): -10.804

Corrected Flow Rate (should be between 36 and 44 cfm): 44

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Project Name:	ENG-WES	Date: 2	12/8/15
Station Location: 1	A9	Operator: 3	B. Abernathy

Sampler Model	PM2.5	MFC Serial No. 5	714204
Sampler Serial No. 4	714204	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	29.98	P_{chk} (mm Hg)	761.492
Temperature (deg. C) (F-32)x0.555 7	8.88	T_{chk} (deg. K)	282.04

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	-2	Corr. Avg Monthly Temp (deg. K)	271.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/30/2015
Intercept (b) =	0.0141	9/30/2015
Correlation Coefficient (r) =	0.9999	9/30/2015

Hi Vol Calib Curve Relationships (station-specific)

9/30/2015	9	Slope (mhv) =	**0.3788**
9/30/2015	10	Intercept (bhv) =	**9.2254**
9/30/2015	11	Correlation Coefficient (rhv) =	**-0.9980**
9/30/2015	12	T_{cal} (deg. K) =	**286.96**
9/30/2015	13	P_{cal} (mm Hg) =	**762.00**

Set Point for Next Sampling Period:

SFR =		40.24
17	SSP =	40

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.0	15 41	16 41	43.90	42.07

Percent Difference (should be ≤ 7%)	-4.166	Corrected Flow Rate (should be between 36 and 44 cfm)	44

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Project Name:	ENG-WES	Date: 2	12/8/15
Station Location: 1	A10	Operator: 3	B. Abernathy

Sampler Model	PM2.5	MFC Serial No. 5	714205
Sampler Serial No. 4	714205	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg)	6 29.98	P_{chk} (mm Hg)	761.492
Temperature (deg. C) (F-32)x0.555	7 8.88	T_{chk} (deg. K)	282.04

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C)	8 -2	Corr. Avg Monthly Temp (deg. K)	271.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/29/2015
Intercept (b) =	0.0141	9/29/2015
Correlation Coefficient (r) =	0.9999	9/29/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3422**	9/29/2015
10	Intercept (bhv) =	**10.7212**	9/29/2015
11	Correlation Coefficient (rhv) =	**-0.9983**	9/29/2015
12	T_{cal} (deg. K) =	**293.66**	9/29/2015
13	P_{cal} (mm Hg) =	**762.00**	9/29/2015

Set Point for Next Sampling Period:

	SFR =	40.24
17	SSP =	40

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.1	15 40	16 40	44.21	41.23

Percent Difference (should be ≤ 7%): -6.735

Corrected Flow Rate (should be between 36 and 44 cfm): 44

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Project Name:	ENG-WES	Date: 2	12/8/15
Station Location: 1	A11	Operator: 3	B. Abernathy

Sampler Model	PM2.5	MFC Serial No. 5	714206
Sampler Serial No. 4	714206	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	29.98	P_{chk} (mm Hg)	761.492
Temperature (deg. C) (F-32)x0.555 7	8.88	T_{chk} (deg. K)	282.04

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	-2	Corr. Avg Monthly Temp (deg. K)	271.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/29/2015
Intercept (b) =	0.0141	9/29/2015
Correlation Coefficient (r) =	0.9999	9/29/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.4157**	9/29/2015
10	Intercept (bhv) =	**7.3309**	9/29/2015
11	Correlation Coefficient (rhv) =	**-0.9997**	9/29/2015
12	T_{cal} (deg. K) =	**293.66**	9/29/2015
13	P_{cal} (mm Hg) =	**762.00**	9/29/2015

Set Point for Next Sampling Period:

	SFR =	40.24
17	SSP =	40

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.4	15 37	16 37	45.15	37.62

Percent Difference (should be ≤ 7%): -16.673

Corrected Flow Rate (should be between 36 and 44 cfm): 44

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Project Name:	ENG-WES	Date: 2	12/8/15
Station Location: 1	A12	Operator: 3	B. Abernathy

Sampler Model	PM2.5	MFC Serial No. 5	714207
Sampler Serial No. 4	714207	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg) 6	29.98	P_{chk} (mm Hg)	761.492
Temperature (deg. C) (F-32)x0.555 7	8.88	T_{chk} (deg. K)	282.04

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C) 8	-2	Corr. Avg Monthly Temp (deg. K)	271.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/29/2015
Intercept (b) =	0.0141	9/29/2015
Correlation Coefficient (r) =	0.9999	9/29/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3132**	9/29/2015
10	Intercept (bhv) =	**11.9178**	9/29/2015
11	Correlation Coefficient (rhv) =	**-0.9989**	9/29/2015
12	T_{cal} (deg. K) =	**293.66**	9/29/2015
13	P_{cal} (mm Hg) =	**762.00**	9/29/2015

Set Point for Next Sampling Period:

	SFR =	40.24
17	SSP =	40

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.1	15 40	16 40	44.21	41.23

Percent Difference (should be ≤ 7%): -6.740

Corrected Flow Rate (should be between 36 and 44 cfm): 44

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Project Name:	ENG-WES	Date: 2	12/8/15
Station Location: 1	A13	Operator: 3	B. Abernathy

Sampler Model	PM2.5	MFC Serial No. 5	714208
Sampler Serial No. 4	714208	Calibrator Orifice Serial No.	714185

Current Conditions

Barometric Pressure (in Hg)	6 29.98	P_{chk} (mm Hg)	761.492
Temperature (deg. C) (F-32)x0.555	7 8.88	T_{chk} (deg. K)	282.04

Conditions for Next Sampling Period

Avg Monthly Pressure (in Hg)	29	Corr. Avg Monthly Pressure (mm Hg)	736.6
Avg Monthly Temp (deg. C)	8 -2	Corr. Avg Monthly Temp (deg. K)	271.16

Orifice Calibration Curve Relationships

Slope (m) =	1.2807	9/29/2015
Intercept (b) =	0.0141	9/29/2015
Correlation Coefficient (r) =	0.9999	9/29/2015

Hi Vol Calib Curve Relationships (station-specific)

9	Slope (mhv) =	**0.3146**	9/29/2015
10	Intercept (bhv) =	**12.1135**	9/29/2015
11	Correlation Coefficient (rhv) =	**-0.9985**	9/29/2015
12	T_{cal} (deg. K) =	**293.66**	9/29/2015
13	P_{cal} (mm Hg) =	**762.00**	9/29/2015

Set Point for Next Sampling Period:

	SFR =	40.24
17	SSP =	41

Definitions

Q_{aofa} = flow rate with orifice calibration relationships
Q_{ahvfa} = flow rate with hi vol calibration relationships
I_{fa} = flow rate with orifice in place
I_{wocofa} = flow rate without calibration orifice in place

Total in. H_2O △H	I_{fa} cfm	I_{wocofa} cfm	Q_{aofa} cfm	Q_{ahvfa} cfm
14 7.2	15 39	16 39	44.53	38.45

Percent Difference (should be ≤ 7%): -13.638

Corrected Flow Rate (should be between 36 and 44 cfm): 44

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PM2.5 FIELD DATA FORM

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location:	A1	Operator (Filter Loading):	B. Abernathy
Sampler Model:	PM2.5	Date:	12/8/2015
MFC Serial No.	713282	Operator (Filter Collection):	B. Abernathy/A. Luna
		Date:	1/7/2016

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.78	Corrected Avg Monthly Pressure (mm Hg)	781.812
Avg Monthly Temp (deg. C)	6.49	Corrected Avg Monthly Temperature (deg. K)	279.65

Hi Vol Calibration Curve Relationships (station-specific)		
Slope (mhv) =	**0.3781**	9/30/2015
Intercept (bhv) =	**10.0159**	9/30/2015
Correlation Coefficient (rhv) =	**-0.9987**	9/30/2015

Set Points During Sampling Period		
SFR =	**40.24**	12/8/2015
SSP =	**41.5**	12/8/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	**12/8/15 12:38**	**Stop Date/Time**	**1/7/16 13:50**	**Elapsed Time (min)**	**43,272**
Flow Rate (cfm)	**42**	**Flow Rate (cfm)**	**39**	**Avg Flow Rate (cfm)**	**41**

I cfm	I ml/min	I total ml
41	1,146,832	49,625,726,700

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-7.14%

H_2S reading at collection:	<10.0 ppm

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PM2.5 FIELD DATA FORM

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location:	A2	Operator (Filter Loading):	B. Abernathy
Sampler Model:	PM2.5	Date:	12/8/2015
MFC Serial No.	710989	Operator (Filter Collection):	B. Abernathy/A. Luna
		Date:	1/7/2016

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.78	Corrected Avg Monthly Pressure (mm Hg)	781.812
Avg Monthly Temp (deg. C)	6.49	Corrected Avg Monthly Temperature (deg. K)	279.65

Hi Vol Calibration Curve Relationships (station-specific)		
Slope (mhv) =	**0.3939**	10/6/2015
Intercept (bhv) =	**8.9471**	10/6/2015
Correlation Coefficient (rhv) =	**-0.9996**	10/6/2015

Set Points During Sampling Period		
SFR =	**40.24**	12/8/2015
SSP =	**40.7**	12/8/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	**12/8/15 14:22**	**Stop Date/Time**	**1/7/16 10:18**	**Elapsed Time (min)**	**42,956**
Flow Rate (cfm)	**41**	**Flow Rate (cfm)**	**37**	**Avg Flow Rate (cfm)**	**39**

I cfm	I ml/min	I total ml
39	1,104,357	47,438,760,000

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-9.76%

H_2S reading at collection:	<10.0 ppm

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PM2.5 FIELD DATA FORM

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location:	A3	Operator (Filter Loading):	B. Abernathy
Sampler Model:	PM2.5	Date:	12/8/2015
MFC Serial No.	714198	Operator (Filter Collection):	B. Abernathy/A. Luna
		Date:	1/7/2016

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.78	Corrected Avg Monthly Pressure (mm Hg)	781.812
Avg Monthly Temp (deg. C)	6.49	Corrected Avg Monthly Temperature (deg. K)	279.65

Hi Vol Calibration Curve Relationships (station-specific)		
Slope (mhv) =	**0.4110**	9/30/2015
Intercept (bhv) =	**7.6685**	9/30/2015
Correlation Coefficient (rhv) =	**-0.9990**	9/30/2015

Set Points During Sampling Period		
SFR =	**40.24**	12/8/2015
SSP =	**39.8**	12/8/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	**12/8/15 14:04**	**Stop Date/Time**	**1/7/16 10:05**	**Elapsed Time (min)**	**42,961**
Flow Rate (cfm)	**40**	**Flow Rate (cfm)**	**40**	**Avg Flow Rate (cfm)**	**40**

I cfm	I ml/min	I total ml
40	1,132,674	48,660,801,900

Is the collection flow rate within 10% of the loading flow rate? (Y) N

0.00%

H_2S reading at collection:	<10.0 ppm

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PM2.5 FIELD DATA FORM

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location:	A4	Operator (Filter Loading):	B. Abernathy
Sampler Model:	PM2.5	Date:	12/8/2015
MFC Serial No.	714199	Operator (Filter Collection):	B. Abernathy/A. Luna
		Date:	1/7/2016

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.78	Corrected Avg Monthly Pressure (mm Hg)	781.812
Avg Monthly Temp (deg. C)	6.49	Corrected Avg Monthly Temperature (deg. K)	279.65

Hi Vol Calibration Curve Relationships (station-specific)		
Slope (mhv) =	**0.3658**	9/30/2015
Intercept (bhv) =	**10.3229**	9/30/2015
Correlation Coefficient (rhv) =	**-0.9991**	9/30/2015

Set Points During Sampling Period		
SFR =	**40.24**	12/8/2015
SSP =	**41.2**	12/8/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	**12/8/15 13:45**	**Stop Date/Time**	**1/7/16 9:53**	**Elapsed Time (min)**	**42,968**
Flow Rate (cfm)	**41**	**Flow Rate (cfm)**	**40**	**Avg Flow Rate (cfm)**	**41**

I cfm	I ml/min	I total ml
41	1,146,832	49,277,089,700

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-2.44%

H_2S reading at collection: <10.0 ppm

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PM2.5 FIELD DATA FORM

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location:	A5	Operator (Filter Loading):	B. Abernathy
Sampler Model:	PM2.5	Date:	12/8/2015
MFC Serial No.	714200	Operator (Filter Collection):	B. Abernathy/A. Luna
		Date:	1/8/2016

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.78	Corrected Avg Monthly Pressure (mm Hg)	781.812
Avg Monthly Temp (deg. C)	6.49	Corrected Avg Monthly Temperature (deg. K)	279.65

Hi Vol Calibration Curve Relationships (station-specific)		
Slope (mhv) =	**0.3815**	9/29/2015
Intercept (bhv) =	**9.8325**	9/29/2015
Correlation Coefficient (rhv) =	**-0.9994**	9/29/2015

Set Points During Sampling Period		
SFR =	**40.24**	12/8/2015
SSP =	**41.4**	12/8/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	**12/8/15 11:38**	**Stop Date/Time**	**1/8/16 12:57**	**Elapsed Time (min)**	**44,719**
Flow Rate (cfm)	**41**	**Flow Rate (cfm)**	**40**	**Avg Flow Rate (cfm)**	**41**

I cfm	I ml/min	I total ml
41	1,146,832	51,285,193,100

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-2.44%

H_2S reading at collection:	<10.0 ppm

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PM2.5 FIELD DATA FORM

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location:	A6	Operator (Filter Loading):	B. Abernathy
Sampler Model:	PM2.5	Date:	12/8/2015
MFC Serial No.	714201	Operator (Filter Collection):	B. Abernathy/A. Luna
		Date:	1/7/2016

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.78	Corrected Avg Monthly Pressure (mm Hg)	781.812
Avg Monthly Temp (deg. C)	6.49	Corrected Avg Monthly Temperature (deg. K)	279.65

Hi Vol Calibration Curve Relationships (station-specific)		
Slope (mhv) =	**0.3984**	9/30/2015
Intercept (bhv) =	**8.8211**	9/30/2015
Correlation Coefficient (rhv) =	**-0.9994**	9/30/2015

Set Points During Sampling Period		
SFR =	**40.24**	12/8/2015
SSP =	**40.8**	12/8/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	**12/8/15 12:24**	**Stop Date/Time**	**1/7/16 13:40**	**Elapsed Time (min)**	**43,276**
Flow Rate (cfm)	**41**	**Flow Rate (cfm)**	**39**	**Avg Flow Rate (cfm)**	**40**

I cfm	I ml/min	I total ml
40	1,132,674	49,017,594,100

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-4.88%

H_2S reading at collection:	<10.0 ppm

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PM2.5 FIELD DATA FORM

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Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location:	A7	Operator (Filter Loading):	B. Abernathy
Sampler Model:	PM2.5	Date:	12/8/2015
MFC Serial No.	714202	Operator (Filter Collection):	B. Abernathy/A. Luna
		Date:	1/8/2016

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.78	Corrected Avg Monthly Pressure (mm Hg)	781.812
Avg Monthly Temp (deg. C)	6.49	Corrected Avg Monthly Temperature (deg. K)	279.65

Hi Vol Calibration Curve Relationships (station-specific)		
Slope (mhv) =	**0.4029**	9/29/2015
Intercept (bhv) =	**8.0948**	9/29/2015
Correlation Coefficient (rhv) =	**-0.9989**	9/29/2015

Set Points During Sampling Period		
SFR =	**40.24**	12/8/2015
SSP =	**39.9**	12/8/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	**12/8/15 11:15**	**Stop Date/Time**	**1/8/16 13:12**	**Elapsed Time (min)**	**44,757**
Flow Rate (cfm)	**40**	**Flow Rate (cfm)**	**37**	**Avg Flow Rate (cfm)**	**39**

I cfm	I ml/min	I total ml
39	1,090,199	48,794,018,500

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-7.50%

H_2S reading at collection:	<10.0 ppm

Reviewed by: _____

Auxier & Associates, Inc.
Radiological Health, Safety and Environmental Consulting
A USA Environment, L.P. Company

PM2.5 FIELD DATA FORM

Auxier & Associates, Inc.
9821 Cogdill Road, Suite 1
Knoxville, TN 37932
(865) 675-3669

Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location:	A8	Operator (Filter Loading):	B. Abernathy
Sampler Model:	PM2.5	Date:	12/8/2015
MFC Serial No.	714203	Operator (Filter Collection):	B. Abernathy/A. Luna
		Date:	1/7/2016

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.78	Corrected Avg Monthly Pressure (mm Hg)	781.812
Avg Monthly Temp (deg. C)	6.49	Corrected Avg Monthly Temperature (deg. K)	279.65

Hi Vol Calibration Curve Relationships (station-specific)		
Slope (mhv) =	**0.3924**	9/29/2015
Intercept (bhv) =	**8.7365**	9/29/2015
Correlation Coefficient (rhv) =	**-0.9994**	9/29/2015

Set Points During Sampling Period		
SFR =	**40.24**	12/8/2015
SSP =	**40.3**	12/8/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	**12/8/15 12:01**	**Stop Date/Time**	**1/7/16 11:08**	**Elapsed Time (min)**	**43,147**
Flow Rate (cfm)	**40**	**Flow Rate (cfm)**	**40**	**Avg Flow Rate (cfm)**	**40**

I cfm	I ml/min	I total ml
40	1,132,674	48,871,479,200

Is the collection flow rate within 10% of the loading flow rate? (Y) N

0.00%

H_2S reading at collection:	<10.0 ppm

Reviewed by: _____

Auxier & Associates, Inc.
9821 Cogdill Road, Suite 1
Knoxville, TN 37932
(865) 675-3669

PM2.5 FIELD DATA FORM

Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location:	A9	Operator (Filter Loading):	B. Abernathy
Sampler Model:	PM2.5	Date:	12/8/2015
MFC Serial No.	714204	Operator (Filter Collection):	B. Abernathy/A. Luna
		Date:	1/7/2016

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.78	Corrected Avg Monthly Pressure (mm Hg)	781.812
Avg Monthly Temp (deg. C)	6.49	Corrected Avg Monthly Temperature (deg. K)	279.65

Hi Vol Calibration Curve Relationships (station-specific)		
Slope (mhv) =	**0.3788**	9/30/2015
Intercept (bhv) =	**9.2254**	9/30/2015
Correlation Coefficient (rhv) =	**-0.9980**	9/30/2015

Set Points During Sampling Period		
SFR =	**40.24**	12/8/2015
SSP =	**40.2**	12/8/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	**12/8/15 13:22**	**Stop Date/Time**	**1/7/16 9:34**	**Elapsed Time (min)**	**42,972**
Flow Rate (cfm)	**40**	**Flow Rate (cfm)**	**48**	**Avg Flow Rate (cfm)**	**44**

I cfm	I ml/min	I total ml
44	1,245,941	53,540,587,400

Is the collection flow rate within 10% of the loading flow rate? **Y** (**N**) 20.00%

H_2S reading at collection:	<10.0 ppm

Reviewed by: _____

Auxier & Associates, Inc.
Radiological Health, Safety and Environmental Consulting
A USA Environment, L.P. Company

PM2.5 FIELD DATA FORM

Auxier & Associates, Inc.
9821 Cogdill Road, Suite 1
Knoxville, TN 37932
(865) 675-3669

Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location:	A10	Operator (Filter Loading):	B. Abernathy
Sampler Model:	PM2.5	Date:	12/8/2015
MFC Serial No.	714205	Operator (Filter Collection):	B. Abernathy/A. Luna
		Date:	1/7/2016

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.78	Corrected Avg Monthly Pressure (mm Hg)	781.812
Avg Monthly Temp (deg. C)	6.49	Corrected Avg Monthly Temperature (deg. K)	279.65

Hi Vol Calibration Curve Relationships (station-specific)		
Slope (mhv) =	**0.3422**	9/29/2015
Intercept (bhv) =	**10.7212**	9/29/2015
Correlation Coefficient (rhv) =	**-0.9983**	9/29/2015

Set Points During Sampling Period		
SFR =	**40.24**	12/8/2015
SSP =	**40.2**	12/8/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	**12/8/15 10:59**	**Stop Date/Time**	**1/7/16 9:01**	**Elapsed Time (min)**	**43,082**
Flow Rate (cfm)	**40**	**Flow Rate (cfm)**	**29**	**Avg Flow Rate (cfm)**	**35**

I cfm	I ml/min	I total ml
35	976,931	42,088,150,300

Is the collection flow rate within 10% of the loading flow rate? **Y** (**N**) -27.50%

H_2S reading at collection:	<10.0 ppm

Reviewed by: _____

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A USA Environment, L.P. Company

PM2.5 FIELD DATA FORM

Auxier & Associates, Inc.
9821 Cogdill Road, Suite 1
Knoxville, TN 37932
(865) 675-3669

Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location:	A11	Operator (Filter Loading):	B. Abernathy
Sampler Model:	PM2.5	Date:	12/8/2015
MFC Serial No.	714206	Operator (Filter Collection):	B. Abernathy/A. Luna
		Date:	1/8/2016

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.78	Corrected Avg Monthly Pressure (mm Hg)	781.812
Avg Monthly Temp (deg. C)	6.49	Corrected Avg Monthly Temperature (deg. K)	279.65

Hi Vol Calibration Curve Relationships (station-specific)		
Slope (mhv) =	**0.4157**	9/29/2015
Intercept (bhv) =	**7.3309**	9/29/2015
Correlation Coefficient (rhv) =	**-0.9997**	9/29/2015

Set Points During Sampling Period		
SFR =	**40.24**	12/8/2015
SSP =	**39.5**	12/8/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	**12/8/15 14:51**	**Stop Date/Time**	**1/8/16 13:27**	**Elapsed Time (min)**	**44,556**
Flow Rate (cfm)	**40**	**Flow Rate (cfm)**	**37**	**Avg Flow Rate (cfm)**	**39**

I cfm	I ml/min	I total ml
39	1,090,199	48,574,888,600

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-7.50%

H_2S reading at collection:	<10.0 ppm

Reviewed by: _____

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Radiological Health, Safety and Environmental Consulting
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PM2.5 FIELD DATA FORM

Auxier & Associates, Inc.
9821 Cogdill Road, Suite 1
Knoxville, TN 37932
(865) 675-3669

Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location:	A12	Operator (Filter Loading):	B. Abernathy
Sampler Model:	PM2.5	Date:	12/8/2015
MFC Serial No.	714207	Operator (Filter Collection):	B. Abernathy/A. Luna
		Date:	1/7/2016

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.78	Corrected Avg Monthly Pressure (mm Hg)	781.812
Avg Monthly Temp (deg. C)	6.49	Corrected Avg Monthly Temperature (deg. K)	279.65

Hi Vol Calibration Curve Relationships (station-specific)		
Slope (mhv) =	**0.3132**	9/29/2015
Intercept (bhv) =	**11.9178**	9/29/2015
Correlation Coefficient (rhv) =	**-0.9989**	9/29/2015

Set Points During Sampling Period		
SFR =	**40.24**	12/8/2015
SSP =	**40.3**	12/8/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	**12/8/15 10:07**	**Stop Date/Time**	**1/7/16 10:52**	**Elapsed Time (min)**	**43,245**
Flow Rate (cfm)	**40**	**Flow Rate (cfm)**	**38**	**Avg Flow Rate (cfm)**	**39**

I cfm	I ml/min	I total ml
39	1,104,357	47,757,919,200

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-5.00%

H_2S reading at collection:	<10.0 ppm

Reviewed by: _____

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Radiological Health, Safety and Environmental Consulting
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PM2.5 FIELD DATA FORM

Auxier & Associates, Inc.
9821 Cogdill Road, Suite 1
Knoxville, TN 37932
(865) 675-3669

Project Name:	ENG-WES	Filter No.	TFAQ102
Station Location:	A13	Operator (Filter Loading):	B. Abernathy
Sampler Model:	PM2.5	Date:	12/8/2015
MFC Serial No.	714208	Operator (Filter Collection):	B. Abernathy/A. Luna
		Date:	1/7/2016

Average Conditions During Sampling Period (from met tower data)			
Avg Monthly Pressure (in. Hg)	30.78	Corrected Avg Monthly Pressure (mm Hg)	781.812
Avg Monthly Temp (deg. C)	6.49	Corrected Avg Monthly Temperature (deg. K)	279.65

Hi Vol Calibration Curve Relationships (station-specific)		
Slope (mhv) =	**0.3146**	9/29/2015
Intercept (bhv) =	**12.1135**	9/29/2015
Correlation Coefficient (rhv) =	**-0.9985**	9/29/2015

Set Points During Sampling Period		
SFR =	**40.24**	12/8/2015
SSP =	**40.7**	12/8/2015

Start of Current Sampling (loading)		End of Current Sampling (collection)			
Start Date/Time	**12/8/15 10:27**	**Stop Date/Time**	**1/7/16 10:40**	**Elapsed Time (min)**	**43,213**
Flow Rate (cfm)	**41**	**Flow Rate (cfm)**	**40**	**Avg Flow Rate (cfm)**	**41**

I cfm	I ml/min	I total ml
41	1,146,832	49,558,063,600

Is the collection flow rate within 10% of the loading flow rate? (Y) N

-2.44%

H_2S reading at collection:	<10.0 ppm

Reviewed by: _____

APPENDIX J

CHAINS OF CUSTODY

Chain of Custody Record

№ 1604

Eberline Services
601 Scarboro Road
Oak Ridge, TN 37830
(865) 481-0683 Phone • (865) 483-4621 Fax

EBERLINE SERVICES

Project Name: Westlake Landfill	Project Number:
Send Report To: EMSI / Auxier & Assoc.	Sampler (Print Name): BILL ABERNATHY 1
Address: Environmental Management Support, Inc. 7220 W. Jefferson Ave., Suite 406 Lakewood, CO 80235	Sampler (Print Name): ALEX LUNA
Auxier & Associates, Inc. 9821 Cogdill Road, Suite 1 Knoxville, TN 37932	Shipment Method: FedEx
Phone: EMSI (303) 940-3426 / A & A (865) 675-3669	Airbill Number: 7749 2187 7360 2
Fax: EMSI (303) 940-3422 / A & A (865) 675-3677	Laboratory Receiving: 601 Scarboro Road Oak Ridge, TN 37830 (865) 481-0683

Page 1 of 1

Purchase Order #: _____

Field Sample ID	Sample 3 Date	Sample 4 Time	Sample Matrix	Number of Containers	Analysis Requested: Gross alpha	Gross beta	Comments, Special Instructions, etc.	Lab Sample ID (to be completed by lab)
ENGWESA001	11/9/15	1128	air filter	1	X	X	Lab: select one of the filters at random (not the field blank) and split it for a field duplicate.	42,232,877,700 ml
ENGWESA002	11/9/15	1322	air filter	1	X	X		39,910,358,300 ml
ENGWESA003	11/9/15	1340	air filter	1	X	X		38,446,757,900 ml
ENGWESA004	11/9/15	1351	air filter	1	X	X		41,024,314,700 ml
ENGWESA005	11/9/15	1022	air filter	1	X	X		41,530,478,300 ml
ENGWESA006	11/9/15	1107	air filter	1	X	X		39,663,498,600 ml
ENGWESA007	11/9/15	1000	air filter	1	X	X		39,955,523,600 ml
ENGWESA008	11/9/15	1039	air filter	1	X	X		42,009,740,900 ml
ENGWESA009	11/9/15	1406	air filter	1	X	X		37,988,352,300 ml
ENGWESA010	11/9/15	0934	air filter	1	X	X		38,244,733,000 ml
ENGWESA011	11/9/15	1423	air filter	1	X	X		41,326,143,900 ml
ENGWESA012	11/9/15	0839	air filter	1	X	X		40,285,570,600 ml
ENGWESA013	11/9/15	0908	air filter	1	X	X		39,777,835,400 ml
Field Blank	11/9/15	0934	air filter	1	X	X		n/a

Relinquished by: (Signature) 5	Received by: (Signature) 6 FEDEX	Date: 7 11/9/15	Time: 8 1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Sample Custodian Remarks (Completed By Laboratory):

QA/QC Level		Turnaround		Sample Receipt	
Level IV	X			Total # Containers Received?	
Level I	☐	Routine	☒	COC Seals Present?	
Level II	☐	24 Hour	☐	COC Seals Intact?	
Level III	☐	1 Week	☐	Received Containers Intact?	
Other	☐	Other _____		Temperature?	

Chain of Custody Record

№ 1604

Eberline Services
601 Scarboro Road
Oak Ridge, TN 37830
(865) 481-0683 Phone • (865) 483-4621 Fax

EBERLINE SERVICES

Project Name: Westlake Landfill	Project Number:
Send Report To: EMSI / Auxier & Assoc.	Sampler (Print Name): B. ABERNATHY 1
Address: Environmental Management Support, Inc. 7220 W. Jefferson Ave., Suite 406 Lakewood, CO 80235	Sampler (Print Name):
Auxier & Associates, Inc. 9821 Cogdill Road, Suite 1 Knoxville, TN 37932	Shipment Method: FedEx
	Airbill Number: 2
Phone: EMSI (303) 940-3426 / A & A (865) 675-3669	Laboratory Receiving: 601 Scarboro Road Oak Ridge, TN 37830
Fax: EMSI (303) 940-3422 / A & A (865) 675-3677	(865) 481-0683

Page 1 of 1

Purchase Order #: _____

Field Sample ID	Sample 3 Date	Sample 4 Time	Sample Matrix	Number of Containers	Gross alpha	Gross beta										Comments, Special Instructions, etc.	Lab Sample ID (to be completed by lab)
ENGWESA001	12/8/15	1236	air filter	1	X	X											47,967,407,200 pCi
ENGWESA002	12/8/15	1420	air filter	1	X	X											47,955,938,900
ENGWESA003	12/8/15	1402	air filter	1	X	X											44,956,958,300
ENGWESA004	12/8/15	1343	air filter	1	X	X											47,880,348,600
ENGWESA005	12/8/15	1136	air filter	1	X	X											47,974,288,200
ENGWESA006	12/8/15	1222	air filter	1	X	X											47,383,145,800
ENGWESA007	12/8/15	1113	air filter	1	X	X											45,674,097,400
ENGWESA008	12/8/15	1159	air filter	1	X	X											47,388,809,100
ENGWESA009	12/8/15	1320	air filter	1	X	X											50,198,973,000
ENGWESA010	12/8/15	1057	air filter	1	X	X											47,362,207,100
ENGWESA011	12/8/15	1449	air filter	1	X	X											44,369,666,900
ENGWESA012	12/8/15	1005	air filter	1	X	X											47,395,605,200
ENGWESA013	12/8/15	1025	air filter	1	X	X											45,016,140,500
Field Blank	12/8/15	1113	air filter	1	X	X											N/A

lab: select one of the filters at random (not the field blank) and split it for a field duplicate.

Relinquished by: (Signature)	Received by: (Signature)	Date: 7	Time: 8
5	6 FEDEX 7751 4401 5399	12/9/15	0830
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Sample Custodian Remarks (Completed By Laboratory):

QA/QC Level		Turnaround	
Level IV	X		
Level I	☐	Routine	☒
Level II	☐	24 Hour	☐
Level III	☐	1 Week	☐
Other	☐	Other _____	

Sample Receipt	
Total # Containers Received?	
COC Seals Present?	
COC Seals Intact?	
Received Containers Intact?	
Temperature?	

Chain of Custody Record

№ 1604

Eberline Services
601 Scarboro Road
Oak Ridge, TN 37830
(865) 481-0683 Phone • (865) 483-4621 Fax

EBERLINE SERVICES

Project Name: Westlake Landfill	Project Number:
Send Report To: EMSI / Auxier & Assoc.	Sampler (Print Name): BILL ABERNATHY 1
Address: Environmental Management Support, Inc. 7220 W. Jefferson Ave., Suite 406 Lakewood, CO 80235	Sampler (Print Name): ALEX LUNA
Auxier & Associates, Inc. 9821 Cogdill Road, Suite 1 Knoxville, TN 37932	Shipment Method: FedEx
	Airbill Number: 7753 8080 1869 2
Phone: EMSI (303) 940-3426 / A & A (865) 675-3669	Laboratory Receiving: 601 Scarboro Road Oak Ridge, TN 37830
Fax: EMSI (303) 940-3422 / A & A (865) 675-3677	(865) 481-0683

Page 1 of 1

Purchase Order #: ML's

Field Sample ID	Sample Date 3	Sample Time 4	Sample Matrix	Number of Containers	Analysis Requested: Gross alpha	Gross beta	Comments, Special Instructions, etc.	Lab Sample ID (to be completed by lab)
ENGWESA001	1/7/16	1350	air filter	1	X	X	lab : select one of the filters at random (not the field blank) and split it for a field duplicate.	49,625,726,700 ml
ENGWESA002	1/7/16	1018	air filter	1	X	X		47,438,760,000
ENGWESA003	1/7/16	1005	air filter	1	X	X		48,660,801,900
ENGWESA004	1/7/16	0953	air filter	1	X	X		49,277,089,700
ENGWESA005	1/8/16	1257	air filter	1	X	X		51,285,193,100
ENGWESA006	1/7/16	1340	air filter	1	X	X		49,017,594,100
ENGWESA007	1/8/16	1312	air filter	1	X	X		48,794,018,500
ENGWESA008	1/7/16	1108	air filter	1	X	X		48,871,479,200
ENGWESA009	1/7/16	0934	air filter	1	X	X		53,540,587,400
ENGWESA010	1/7/16	0901	air filter	1	X	X		42,088,150,300
ENGWESA011	1/8/16	1327	air filter	1	X	X		48,574,888,600
ENGWESA012	1/7/16	1052	air filter	1	X	X		47,757,919,200
ENGWESA013	1/7/16	1040	air filter	1	X	X		49,558,063,600
Field Blank	1/7/16	0915	air filter	1	X	X		n/a

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
5	6 FEDEX 7753 8080 1869	7 1/11/16	8 1000
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Sample Custodian Remarks (Completed By Laboratory):

QA/QC Level		Turnaround		Sample Receipt	
Level IV	X			Total # Containers Received?	
Level I	☐	Routine	X	COC Seals Present?	
Level II	☐	24 Hour	☐	COC Seals Intact?	
Level III	☐	1 Week	☐	Received Containers Intact?	
Other	☐	Other		Temperature?	

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: Auxier & Associates, Inc. / Environ. Management Support, Inc.

Collected by: (Print and Sign) 1 WILLIAM ABERNATHY

Company: A & A / EMSI Email: cgreene@auxier.com, paulrosasco@emsidenver.com

Address: A & A - 9821 Cogdill Rd, Suite 1 Knoxville TN 37932 / EMSI - 7220 W. Jefferson Ave, Ste 406 City Lakewood State CO Zip 80235

Phone: A & A - (865) 675-3669 EMSI - (303) 940-3426 Fax: A & A - (865) 675-3677 EMSI - (303) 940-3422

Project Info:
P.O. #
Project #
Project Name: Westlake Landfill

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Radiello130 # 2 ~~Can #~~	Date 3 of Collection	Time 4 of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
	ENGWESA001	431NS	10/27/15	1533	See Appendix F sheet	na	na		
	ENGWESA005	432NS	10/27/15	1510	"	na	na		
	ENGWESA007	434NS	10/27/15	1500	"	na	na		
	ENGWESA008	435 NS	10/27/15	1519	"	na	na		
	ENGWESA011	438NS	10/27/15	1547	"	na	na		
	Duplicate	437NS	10/27/15	1519	"	na	na		
	TRIP BLANK	442NS	—	—	"	na	na		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
5	10/28/15 1200	6 FEDEX 7748 3214 3758	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
7 1 10/14/15 1358
5 " 1527
7 " 1502
8 " 1626 (D)
11 " 1432

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact? Yes No None	Work Order #

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: Auxier & Associates, Inc. / Environ. Management Support, Inc.

Collected by: (Print and Sign) 1 BILL ABERNATHY

Company: A & A / EMSI Email: cgreene@auxier.com / paulrosasco@emsidenver.com

Address: A & A - 9821 Cogdill Rd, Suite 1 Knoxville TN 37932
EMSI - 7220 W. Jefferson Ave, Ste 406 ~~City~~ Lakewood ~~State~~ CO ~~Zip~~ 80235

Phone: A & A - (865) 675-3669 EMSI - (303) 940-3426 Fax: A & A - (865) 675-3677 EMSI - (303) 940-3422

Project Info:
P.O. #
Project #
Project Name: Westlake Landfill

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Radiello130 # 2 ~~Can #~~	Date 3 of Collection	Time 4 of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
	ENGWESA001	441 NS	11/9/15	1128	See Appendix F sheet	na	na		
	ENGWESA005	439 NS	11/9/15	1022	"	na	na		
	ENGWESA007	436 NS	11/9/15	1000	"	na	na		
	ENGWESA008	440 NS	11/9/15	1039	"	na	na		
	ENGWESA012	443 NS	11/9/15	0843	"	na	na		
	Duplicate	444 NS	11/9/15	0843	"	na	na		
	TRIP BLANK	206 NQ	—	—	"	na	na		

Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
5 11/9/15 1530	6 FEDEX 7749 2182 5477 11/9/15 1600
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time

Notes:
7 1 - 10/27/15 1538
5 - " 1514
7 - " 1506
8 - " 1520
12 - " 1557 (D)

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
					Yes No None	

Form 1293 rev.11

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: Auxier & Associates, Inc. / Environ. Management Support, Inc.

Collected by: (Print and Sign) 1 BILL ABERNATHY — cgreene@auxier.com

Company: A & A / EMSI — Email: paulrosasco@emsidenver.com

Address: A & A - 9821 Cogdill Rd, Suite 1 — Knoxville — TN — 37932
EMSI - 7220 W. Jefferson Ave, Ste 406 — City: Lakewood — State: CO — Zip: 80235

Phone: A & A - (865) 675-3669 EMSI - (303) 940-3426 — Fax: A & A - (865) 675-3677 EMSI - (303) 940-3422

Project Info:
P.O. #
Project #
Project Name: Westlake Landfill

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Radiello130 # 2 ~~Can #~~	Date 3 of Collection	Time 4 of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
	ENGWESA001	202NQ	11/25/15	1155	See Appendix F sheet	na	na		
	ENGWESA005	207NQ	11/25/15	1145	"	na	na		
	ENGWESA007	204NQ	11/25/15	1226	"	na	na		
	ENGWESA008	203NQ	11/25/15	1207	"	na	na		
	ENGWESA012	201NQ	11/25/15	1216	"	na	na		
	Duplicate	205NQ	11/25/15	1155	"	na	na		
	TRIP BLANK	200NQ	———	———	"	na	na		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
5	11/25/15 1345	6 FEDEX 7750 6180 6867	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
7 1 - 11/9 @ 1130 (D)
5 - " @ 1024
7 - " @ 1002
8 - " @ 1041
12 - " @ 0845

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact? Yes No None	Work Order #

Form 1293 rev.11

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CHAIN-OF-CUSTODY RECORD

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: Auxier & Associates, Inc. / Environ. Management Support, Inc.

Collected by: (Print and Sign) 1 William Abernathy

Company: A & A / EMSI Email: cgreene@auxier.com, paulrosasco@emsidenver.com

Address: A & A - 9821 Cogdill Rd, Suite 1 Knoxville TN 37932
EMSI - 7220 W. Jefferson Ave, Ste 406 ~~City~~ Lakewood ~~State~~ CO ~~Zip~~ 80235

Phone: A & A - (865) 675-3669 EMSI - (303) 940-3426 Fax: A & A - (865) 675-3677 EMSI - (303) 940-3422

Project Info:
P.O. #
Project #
Project Name: Westlake Landfill

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Radiello130 # 2 ~~Can #~~	Date 3 of Collection	Time 4 of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
	ENGWESA001	194NQ	12/8/15	1220	See Appendix F sheet	na	na		
	ENGWESA005	193NQ	12/8/15	1122	"	na	na		
	ENGWESA007	196NQ	12/8/15	1107	"	na	na		
	ENGWESA008	195NQ	12/8/15	1145	"	na	na		
	ENGWESA012	198NQ	12/8/15	1020	"	na	na		
	Duplicate	197NQ	12/8/15	1107	"	na	na		
	TRIP BLANK	394NI	—	—	"	na	na		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
5	12/9/15 0830	6 FEDEX 7751 4401 1511	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
7 1 - 11/25/15 1157
5 - " 1147
7 - 11/25/15 1228 (D)
8 - 11/25/15 1209
12 - 11/25/15 1218

Lab Use Only

Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact? Yes No None	Work Order #

Form 1293 rev.11

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

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180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: Auxier & Associates, Inc. / Environ. Management Support, Inc.

Collected by: (Print and Sign) 1 BILL ABERNATHY

Company: A & A / EMSI Email: cgreene@auxier.com, paulrosasco@emsidenver.com

Address: A & A - 9821 Cogdill Rd, Suite 1 Knoxville TN 37932
EMSI - 7220 W. Jefferson Ave, Ste 406 City Lakewood State CO Zip 80235

Phone: A & A - (865) 675-3669 EMSI - (303) 940-3426 Fax: A & A - (865) 675-3677 EMSI - (303) 940-3422

Project Info:
P.O. #
Project #
Project Name: Westlake Landfill

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Radiello130 # 2 ~~Can #~~	Date 3 of Collection	Time 4 of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
	ENGWESA001	397NI	12/23/15	0915	See Appendix F sheet	na	na		
	ENGWESA005	401NI	12/23/15	0938	"	na	na		
	ENGWESA007	399NI	12/23/15	0943	"	na	na		
	ENGWESA008	398NI	12/23/15	0930	"	na	na		
	ENGWESA012	402NI	12/23/15	1006	"	na	na		
	Duplicate	400NI	12/23/15	0915	"	na	na		
	TRIP BLANK	396NI	—	—	"	na	na		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
5	12/28/15 0900	6 FedEx 7752 8480 2169	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
7 1 - 12/8/15 1222 D
5 - " 1124
7 - " 1109
8 - " 1147
12 - " 1022

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact? Yes No None	Work Order #

Form 1293 rev.11

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager: Auxier & Associates, Inc. / Environ. Management Support, Inc.

Collected by: (Print and Sign) 1 WILLIAM ABERNATHY

Company: A & A / EMSI — Email: cgreene@auxier.com, paulrosasco@emsidenver.com

Address: A & A - 9821 Cogdill Rd, Suite 1 — Knoxville — TN — 37932
EMSI - 7220 W. Jefferson Ave, Ste 406 — City: Lakewood — State: CO — Zip: 80235

Phone: A & A - (865) 675-3669 EMSI - (303) 940-3426 Fax: A & A - (865) 675-3677 EMSI - (303) 940-3422

Project Info:
P.O. #
Project #
Project Name: Westlake Landfill

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Radiello130 # 2 ~~Can #~~	Date 3 of Collection	Time 4 of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
	ENGWESA001	187NQ	1/7/16	1356	See Appendix F sheet	na	na		
	ENGWESA005	188NQ	1/8/16	1300	"	na	na		
	ENGWESA007	189NQ	1/8/16	1312	"	na	na		
	ENGWESA008	190NQ	1/7/16	1112	"	na	na		
	ENGWESA012	191NQ	1/7/16	1056	"	na	na		
	Duplicate	192NQ	1/8/16	1300	"	na	na		
	TRIP BLANK	403NI	—	—	"	na	na		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
5	1/11/16 1000	6 FEDEX 7753 8079 7760	

Notes:
7 1 - 12/23/15 0920
5 - 12/23/15 0940 (D)
7 - 12/23/15 0947
8 - 12/23/15 0935
12 - 12/23/15 1010

Lab Use Only

Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact? Yes No None	Work Order #

INSPECTUSA CUT HERE **INFORMATION FORM** CUT HERE

Send Report To:		Test address:
Name: Cecilia Greene - Auxier & Associates, Inc.		Name: Westlake Landfill
Address: 9821 Cogdill Road, Suite 1		Address: 13570 St. Charles Rock Road
City, State, Zip: Knoxville, TN 37932		City, State, Zip: Bridgeton, MO 63044
eMail address: cgreene@auxier.com		Tech Certification (if required):
☐ Check here if devices were placed 4" apart		☐ Check here if this test is a Post Mitigation test

Notes: 1 Bill Abernathy page 1 of 5

Device #: 2 *2964540*	Device #: *2964546*	Device #: *2964538*
Floor level:	Floor level:	Floor level:
Name of room: 3 #1	Name of room: #2	Name of room: #3
Date Opened: 4 10/14/15	Date Opened: 10/15/15	Date Opened: 10/15/15
Date Closed: 5 1/7/16	Date Closed: 1/7/16	Date Closed: 1/7/16

Remember to affix proper postage or Post Office will not deliver to the Lab.

INSPECTUSA

LONG TERM (Alpha Track) Radon Test Kit INSTRUCTIONS
91 Days - 12 Month Exposure Period

For your convenience, record device #'s here

Device 1#: _____

Device 2#: _____

Device 3#: _____

DO NOT OPEN SEALED BAG UNTIL YOU ARE READY TO TEST!

Instructions are provided to you with specific steps that must be followed. InspectUSA, National Safety Products, Accustar Labs, or any of its affiliates, cannot provide any warranty remedy to you for any claims, which arise due to the failure to follow instructions.

1. **Check the expiration date on each device.** Start your test before the expiration date or results are invalid.
2. When you are ready to start the test, cut or tear open the sealed bag that contains the black device; discard the sorbit (*little cloth looking bag*). As soon as you open the bag the device is "ON" and the test has begun. **Do NOT remove the VOID sticker** or open the black plastic housing or results will be invalid.

Save the bag, this sheet & mailing envelope for returning to lab.

3. Write each device number (or place bar code) along with your name, test address, and email address on the **INFORMATION FORM** below . **Write in the test BEGINNING date!** Also indicate the location, floor level & the name of room (IE basement, living room, bedroom etc) where the device is being exposed.

4. **PLACE THE RADON DEVICE.** Device should be placed in the lowest level of the house that is regularly used for 8-10 hours per week. If you are making a follow-up measurement, the US EPA recommends placing a device on each level that is used for living space. Do NOT test in garage, porch, kitchen, closet, bathroom, furnace room, laundry room, root cellar, crawl space or sump. DO NOT place devices where they will be exposed to high humidity &/or noticeable drafts from open doors, windows, fireplace, heat/air conditioning vents etc. Hang or place each device at least 3 feet from exterior doors or windows & at least 2 feet off the floor. The device may be placed face-up or face-down. If performing a duplicate test, place 2 devices side by side, 4" apart. Leave each device in place & undisturbed for at least 91 days and up to 1 year.

5. **END THE RADON TEST.** Place device back in the bag (or use a zip lock bag), write the test ENDING date on the INFORMATION FORM below **(necessary for analysis). Make sure the INFORMATION FORM is complete and LEGIBLE.**

6. Record the device number(s) for your reference and ability to retrieve results online. Online results are typically available within 14 to 21 days of the lab receiving the device(s). **Get Results at: www.InspectUSA.com/results**

7. Place the device(s) & information form in the mailing package. **Write your return address & seal the mailing package closed.**

Affix proper postage! **Return IMMEDIATELY to: RADON LAB, 11 AWL STREET, MEDWAY, MA 02053**

US Priority Mail with DELIVERY CONFIRMATION is recommended.

Devices must be returned within 8 days of ending the test.

If delivery of your kit is lost or delayed, we will not be responsible for invalid results or for a free replacement kit.

Reports are emailed within 2 weeks after we receive your devices.

You may access your test results on our website **www.InspectUSA.com/results**

INSPECTUSA ↑ CUT HERE **INFORMATION FORM** CUT HERE ↑

Send Report To:↓		**Test address: ↓**
Name: Cecilia Greene - Auxier & Associates, Inc.		Name: Westlake Landfill
Address: 9821 Cogdill Road, Suite 1		Address: 13570 St. Charles Rock Road
City, State, Zip: Knoxville, TN 37932		City, State, Zip: Bridgeton, MO 63044
eMail address: cgreene@auxier.com		Tech Certification (if required):
☐ Check here if devices were placed 4" apart		☐ Check here if this test is a Post Mitigation test

Notes: 1 page 2 of 5

Device #: 2 *2964539*	Device #: *2964542*	Device #: *2964544*
Floor level:	Floor level:	Floor level:
Name of room: 3 #4	Name of room: #5	Name of room: #6
Date Opened: 4 10/15/15	Date Opened: 10/14/15	Date Opened: 10/14/15
Date Closed: 5 1/7/16	Date Closed: 1/8/16	Date Closed: 1/7/16

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INSPECTUSA

LONG TERM (Alpha Track) Radon Test Kit INSTRUCTIONS
91 Days - 12 Month Exposure Period

For your convenience, record device # s here

Device 1#: _____

Device 2#: _____

Device 3#: _____

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Save the bag, this sheet & mailing envelope for returning to lab.

3. Write each device number (or place bar code) along with your name, test address, and email address on the **INFORMATION FORM** below . **Write in the test BEGINNING date!** Also indicate the location, floor level & the name of room (IE basement, living room, bedroom etc) where the device is being exposed.

4. **PLACE THE RADON DEVICE.** Device should be placed in the lowest level of the house that is regularly used for 8-10 hours per week. If you are making a follow-up measurement, the US EPA recommends placing a device on each level that is used for living space. Do NOT test in garage, porch, kitchen, closet, bathroom, furnace room, laundry room, root cellar, crawl space or sump. DO NOT place devices where they will be exposed to high humidity &/or noticeable drafts from open doors, windows, fireplace, heat/air conditioning vents etc. Hang or place each device at least 3 feet from exterior doors or windows & at least 2 feet off the floor. The device may be placed face-up or face-down. If performing a duplicate test, place 2 devices side by side, 4" apart. Leave each device in place & undisturbed for at least 91 days and up to 1 year.

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Affix proper postage! **Return IMMEDIATELY to: RADON LAB, 11 AWL STREET, MEDWAY, MA 02053**

US Priority Mail with DELIVERY CONFIRMATION is recommended.

Devices must be returned within 8 days of ending the test.

If delivery of your kit is lost or delayed, we will not be responsible for invalid results or for a free replacement kit.

Reports are emailed within 2 weeks after we receive your devices.

You may access your test results on our website **www.InspectUSA.com/results**

INSPECTUSA ↑ CUT HERE **INFORMATION FORM** CUT HERE ↑

Send Report To: ↓		**Test address:** ↓
Name: Cecilia Greene - Auxier & Associates, Inc.		Name: Westlake Landfill
Address: 9821 Cogdill Road, Suite 1		Address: 13570 St. Charles Rock Road
City, State, Zip: Knoxville, TN 37932		City, State, Zip: Bridgeton, MO 63044
eMail address: cgreene@auxier.com		Tech Certification (if required):
☐ Check here if devices were placed 4" apart		☐ Check here if this test is a Post Mitigation test

Notes: 1 page 3 of 5

Device #: 2 *2964549*	Device #: *2964550*	Device #: *2964543*
Floor level:	Floor level:	Floor level:
Name of room: 3 #7	Name of room: #8	Name of room: #9
Date Opened: 4 10/14/15	Date Opened: 10/14/15	Date Opened: 10/15/15
Date Closed: 5 1/8/16	Date Closed: 1/7/16	Date Closed: 1/7/16

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INSPECTUSA

LONG TERM (Alpha Track) Radon Test Kit INSTRUCTIONS
91 Days - 12 Month Exposure Period

For your convenience, record device # s here

Device 1#: _____

Device 2#: _____

Device 3#: _____

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3. Write each device number (or place bar code) along with your name, test address, and email address on the **INFORMATION FORM** below . **Write in the test BEGINNING date!** Also indicate the location, floor level & the name of room (IE basement, living room, bedroom etc) where the device is being exposed.

4. **PLACE THE RADON DEVICE.** Device should be placed in the lowest level of the house that is regularly used for 8-10 hours per week. If you are making a follow-up measurement, the US EPA recommends placing a device on each level that is used for living space. Do NOT test in garage, porch, kitchen, closet, bathroom, furnace room, laundry room, root cellar, crawl space or sump. DO NOT place devices where they will be exposed to high humidity &/or noticeable drafts from open doors, windows, fireplace, heat/air conditioning vents etc. Hang or place each device at least 3 feet from exterior doors or windows & at least 2 feet off the floor. The device may be placed face-up or face-down. If performing a duplicate test, place 2 devices side by side, 4" apart. Leave each device in place & undisturbed for at least 91 days and up to 1 year.

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Devices must be returned within 8 days of ending the test.

If delivery of your kit is lost or delayed, we will not be responsible for invalid results or for a free replacement kit.

Reports are emailed within 2 weeks after we receive your devices.

You may access your test results on our website **www.InspectUSA.com/results**

INSPECTUSA ↑ CUT HERE **INFORMATION FORM** CUT HERE ↑

Send Report To:↓		**Test address: ↓**
Name: Cecilia Greene - Auxier & Associates, Inc.		Name: Westlake Landfill
Address: 9821 Cogdill Road, Suite 1		Address: 13570 St. Charles Rock Road
City, State, Zip: Knoxville, TN 37932		City, State, Zip: Bridgeton, MO 63044
eMail address: cgreene@auxier.com		Tech Certification (if required):
☐ Check here if devices were placed 4" apart		☐ Check here if this test is a Post Mitigation test

Notes: 1 page 4 of 5

Device #: 2 *2964537*	Device #: *2964547*	Device #: *2964545*
Floor level:	Floor level:	Floor level:
Name of room: 3 #10	Name of room: #11	Name of room: #12
Date Opened: 4 10/15/15	Date Opened: 10/14/15	Date Opened: 10/15/15
Date Closed: 5 1/7/16	Date Closed: 1/8/16	Date Closed: 1/7/16

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INSPECTUSA

LONG TERM (Alpha Track) Radon Test Kit INSTRUCTIONS
91 Days - 12 Month Exposure Period

For your convenience, record device #'s here

Device 1#: _____

Device 2#: _____

Device 3#: _____

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2. When you are ready to start the test, cut or tear open the sealed bag that contains the black device; discard the sorbit (*little cloth looking bag*). As soon as you open the bag the device is "ON" and the test has begun. **Do NOT remove the VOID sticker** or open the black plastic housing or results will be invalid.

Save the bag, this sheet & mailing envelope for returning to lab.

3. Write each device number (or place bar code) along with your name, test address, and email address on the **INFORMATION FORM** below . **Write in the test BEGINNING date!** Also indicate the location, floor level & the name of room (IE basement, living room, bedroom etc) where the device is being exposed.

4. **PLACE THE RADON DEVICE.** Device should be placed in the lowest level of the house that is regularly used for 8-10 hours per week. If you are making a follow-up measurement, the US EPA recommends placing a device on each level that is used for living space. Do NOT test in garage, porch, kitchen, closet, bathroom, furnace room, laundry room, root cellar, crawl space or sump. DO NOT place devices where they will be exposed to high humidity &/or noticeable drafts from open doors, windows, fireplace, heat/air conditioning vents etc. Hang or place each device at least 3 feet from exterior doors or windows & at least 2 feet off the floor. The device may be placed face-up or face-down. If performing a duplicate test, place 2 devices side by side, 4" apart. Leave each device in place & undisturbed for at least 91 days and up to 1 year.

5. **END THE RADON TEST.** Place device back in the bag (or use a zip lock bag), write the test ENDING date on the INFORMATION FORM below **(necessary for analysis). Make sure the INFORMATION FORM is complete and LEGIBLE.**

6. Record the device number(s) for your reference and ability to retrieve results online. Online results are typically available within 14 to 21 days of the lab receiving the device(s). **Get Results at: www.InspectUSA.com/results**

7. Place the device(s) & information form in the mailing package. **Write your return address & seal the mailing package closed.**

Affix proper postage! **Return IMMEDIATELY to: RADON LAB, 11 AWL STREET, MEDWAY, MA 02053**

US Priority Mail with DELIVERY CONFIRMATION is recommended.

Devices must be returned within 8 days of ending the test.

If delivery of your kit is lost or delayed, we will not be responsible for invalid results or for a free replacement kit.

Reports are emailed within 2 weeks after we receive your devices.

You may access your test results on our website **www.InspectUSA.com/results**

INSPECTUSA ↑ CUT HERE **INFORMATION FORM** CUT HERE ↑

Send Report To: ↓		**Test address:** ↓
Name: Cecilia Greene - Auxier & Associates, Inc.		Name: Westlake Landfill
Address: 9821 Cogdill Road, Suite 1		Address: 13570 St. Charles Rock Road
City, State, Zip: Knoxville, TN 37932		City, State, Zip: Bridgeton, MO 63044
eMail address: cgreene@auxier.com		Tech Certification (if required):
☐ Check here if devices were placed 4" apart		☐ Check here if this test is a Post Mitigation test

Notes: 1 page 5 of 5

Device #: 2 *2964541*	Device #: *2964548*	Device #:
Floor level:	Floor level:	Floor level:
Name of room: 3 #13	Name of room: DUPLICATE 10	Name of room:
Date Opened: 4 10/15/15	Date Opened: 10/14/15	Date Opened:
Date Closed: 5 1/7/16	Date Closed: 1/7/16	Date Closed:

Remember to affix proper postage or Post Office will not deliver to the Lab.

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

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BRIDGETON, MO 63044
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CAD: 105653986/INET3730

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(800) 251-3331 REF: 1-20-16 TLD'S
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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Duplicate TLD #12